

**CITY OF SALEM
DEPARTMENT OF PUBLIC WORKS
ADMINISTRATIVE RULE
CHAPTER 109
DIVISION 012
STORMWATER SOURCE CONTROLS**

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Abbreviations

DEQ..... Oregon Department of Environmental Quality
EPA..... Environmental Protection Agency
MS4.....Municipal Separate Storm Sewer System
NFPA National Fire Protection Association
NPDESNational Pollutant Discharge Elimination System
SRC.....Salem Revised Code
SWPCP..... Stormwater Pollution Control Plan
TAMP.....Trash Area Management Plan
UICUnderground Injection Control
WPCFWater Pollution Control Facility
WRD.....Oregon Water Resources Department

1.1 – Introduction

Stormwater source controls are methods to minimize or prevent pollutants from coming in contact with rainfall or runoff.

- (a) **Purpose.** This rule presents minimum requirements, approved methods, criteria, details, and general guidance for stormwater source control.
- (b) **Objectives.** Source control requirements are based on the following objectives:
 - (1) Prevent stormwater pollution by eliminating pathways that may introduce contaminants into stormwater.
 - (2) Protect soil, groundwater, and surface water by capturing acute pollutant releases and reducing chronic contamination of the environment.
 - (3) Direct wastewater discharges and areas with the potential for relatively consistent wastewater discharges (such as vehicle washing facilities) to the wastewater system.
 - (4) Direct areas that have the potential for acute releases or accidental spills, and are not expected to regularly receive stormwater flow or require water use (such as covered fuel islands or covered containment areas) to an approved method of containment or disposal.
 - (5) Safely contain spills on-site, avoiding preventable discharges to wastewater or stormwater system, surface water bodies, or the ground surface.
 - (6) Emphasize structural controls over operational procedures. Structural controls are not operator-dependent and are considered to provide more permanent and reliable source control. Any proposals for operation-based source controls need to describe the long-term viability of the operations and maintenance program.
- (c) **Applicability.** The provisions of this rule apply pursuant to *Salem Revised Code* Chapter 70 (Utilities, General), Chapter 71 (Stormwater), and the City of Salem *Public Works Design Standards*.
- (d) **Authority to Adopt.** This rule is authorized by *Salem Revised Code* Chapters 20J, 70, and 71. The requirements contained in this rule shall be consistent with the *Salem Revised Code*. In those cases where a conflict may exist, the *Salem Revised Code* will take precedence.

1.2 – Definitions

Terms in this rule defined in the *Salem Revised Code* and the City of Salem *Public Works Design Standards* have the same meaning, except as otherwise provided in this rule or as context requires. Other terms in this rule are defined herein. Terms specifically defined in this rule apply only to the application and enforcement of these rules. Unless otherwise expressly provided in the *Salem Revised Code*, and except as the context specifically requires, the following terms shall mean:

- (a) **Aboveground Storage Tank.** A stationary container, vessel, or other permanent holding device designated for the storage and/or distribution of a liquid product.

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- (b) **Bulk Fuel Terminal (also known as Tank Farms).** Any area with its primary function dedicated to the storage and distribution of fuel to distributors (such as gas stations).
- (c) **Bulk Storage Tank.** Aboveground fuel tanks larger than 55 gallons or 660 gallons in cumulative fuel storage in one location.
- (d) **Equipment and/or Vehicle Washing Facilities.** Designated equipment and/or vehicle washing or steam cleaning areas, including smaller activities such as wheel washing stations.
- (e) **Fuel Dispensing Facilities.** Areas where fuel is transferred from bulk storage tanks to vehicles, equipment, and/or mobile containers (including fuel islands, aboveground fuel tanks, fuel pumps, and the surrounding pad). This definition applies to large-sized gas stations and single pump fueling operations.
- (f) **Manufactured Treatment Technology.** A manufactured device, often proprietary, in which stormwater receives treatment before being discharged to another best management practice or to the receiving water. This is a broad category of best management practices with a variety of pollutant removal mechanisms and varying pollutant removal efficiencies.
- (g) **Material Transfer Areas/Loading Docks.** Areas that are designed to accommodate a truck or trailer, typically by backing, and used specifically to receive or distribute materials, including loading/unloading facilities with docks and large bay doors without docks.
- (h) **Pretreatment.** The reduction of contaminants in drainage water before it is discharged into a treatment facility or receiving water body. Pretreatment facilities are primarily used to reduce sediments, floating solids, or oil and grease.

1.3 – Other Regulatory Requirements

Conforming to requirements of this rule does not relieve persons of other local, state, or federal regulatory requirements. In the event of a conflict between regulatory requirements, the most stringent requirement will apply.

1.4 – Requirements for a Stormwater Pollution Control Plan

The Public Works Director may require Stormwater Pollution Control Plan (SWPCP) for a site on which pollution-generating activities, as defined in SRC Chapter 71, are being conducted. An SWPCP is a stormwater management plan that contains detailed information regarding a site, the potential impacts that the site may pose to water quality, and the best management practices that will be implemented to address stormwater pollution. Developing and implementing an SWPCP is mandatory for industrial sources subject to the requirements of the Oregon Department of Environmental Quality's National Pollutant Discharge Elimination System (NPDES) 1200-Z industrial stormwater permit. The SWPCP must include:

- (a) A complete description of the activities at the site;
- (b) Drainage maps that show the location of the facilities, impervious areas, and point source discharge; and

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- (c) A description of control measures, either in place or to be implemented on the site, that will prevent and/or treat stormwater pollution.

1.5 – Request for an Alternative Method of Source Control

Applicants may propose an alternative method of source control by submitting a request (see Appendix A) to the Public Works Director in writing, specifying the reason for the request, describing the proposed alternative method(s), providing any supporting technical and factual data. The Public Works Director will review the application and make a determination.

Any person owning, engaging in any activity on, or occupying property is required to implement and maintain best management practices to prevent pollutants from leaving the property and entering into a stormwater system or receiving water. Five key best management practices are described below.

1.6 – Source Control Requirements for All Property

Any person owning, engaging in any activity on, or occupying property is required to implement and maintain best management practices to prevent pollutants from leaving the property and entering into a stormwater system or receiving water. Five required best management practices are described below.

(a) Identify and Eliminate Illicit Connections to Stormwater System

Some properties have internal building drains, sump overflows, process wastewater discharges, and even sanitary sewer and septic system pipes that are incorrectly plumbed to the stormwater system. These are illicit connections that allow pollutants to flow directly and untreated to a receiving water body instead of to the sanitary sewer.

(1) Minimum Requirements

- (A) Examine plumbing systems to identify any illicit connections through observation or examination of site plans.
- (B) Illicit connections in pipe or structure drains can be determined by performing a dye test with a nontoxic dye or a smoke test. These tests are typically performed by trained and qualified personnel.
- (C) Illicit connections may not be intentional, but if an illicit discharge is found, it must be eliminated. Conversely, any stormwater connections to the sanitary sewer are also an illicit connection which, if identified, must be eliminated.

(b) Properly Dispose of Fluids and Wastes

A pollutant is defined as any substance that affects, or has the potential to affect, water quality in a manner that is detrimental to human health or safety or to the environment. Discharging pollutants into the City's stormwater system is prohibited. For all real properties, responsible parties must properly dispose of solid and liquid wastes.

(1) Minimum Requirements

- (A) Use one of the following four options for disposal, depending on the type of waste:
 - (i) Recycling facilities and composting facilities;

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- (ii) Municipal solid waste disposal facilities;
- (iii) Hazardous waste treatment, storage, and disposal facilities; and
- (iv) Wastewater system.

(B) Some liquid wastes and contaminated stormwater can be discharged to the wastewater system, subject to approval by Public Works. If wastes cannot be legally discharged to the wastewater system, one of the other three disposal options must be used. Sumps or holding tanks may be useful for storing liquid wastes temporarily before the contents are disposed of properly.

(C) Dangerous and hazardous wastes must be properly transported to an appropriate hazardous waste disposal, treatment, and storage facility.

(c) Properly Store Solid Wastes

This minimum requirement applies to properties that store solid wastes outdoors, including food wastes and ordinary garbage. If improperly stored, these wastes can contribute a variety of pollutants to stormwater, including toxic organic compounds; fats, oils, and greases; metals; nutrients; suspended solids; substances that increase Chemical Oxygen Demand; and substances that increase Biochemical Oxygen Demand. These pollutants must not be discharged to the stormwater system or directly into receiving waters. Businesses and public agencies that store and handle dangerous wastes must follow specific regulations outlined by the DEQ and may require a permit.

(1) Minimum Requirements

(A) All solid wastes must be stored in suitable containers. Storage containers must:

- (i) Have leak-proof lids or be covered by some other means to prevent entry of rainfall. Lids must be kept closed at all times.
- (ii) Be checked for leaks and replaced if they are leaking, corroded, or otherwise deteriorating.

(B) The waste storage area must be swept or otherwise cleaned frequently to collect all loose solids for proper disposal in a storage container. Do not hose the area if the water will flow into the drainage system.

(C) Dumpsters or trash compactors must have either a permanent cover that prevents contact with rainfall or an approved Trash Area Management Plan (See Appendix D).

(D) Do not allow accumulated waste to exceed the capacity of the storage container.

(d) Conduct Spill Prevention and Cleanup

Spills can contribute a variety of pollutants to the drainage system and nearby waterways. Contamination is often preventable if appropriate practices for chemical and waste handling and spill response are implemented.

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(1) Minimum Requirements

- (A) Use spill cleanup materials to clean up fats, oil, and grease or other contaminants.
- (B) Promptly contain and clean up leaks and spills of solid and liquid pollutants from commercial operations on any exposed soil, vegetation, or paved areas.
- (C) Ensure spill cleanup kits are available at activity locations where spills may occur.
- (D) Clearly label all containers that contain potential pollutants.
- (E) Store and transport liquid materials in appropriate containers with tight-fitting lids.
- (F) Place drip pans underneath all containers, fittings, and valves where materials are likely to spill or leak.
- (G) Use tarpaulins, ground cloths, or drip pans in areas where materials are mixed, carried, and applied to capture any spilled materials.

(e) Maintain Stormwater Systems

Conducting routine inspections and maintenance is necessary to ensure stormwater systems operate properly. Sediment and pollutants can accumulate over time in various components of drainage collection, conveyance, and treatment systems, such as catch basins, ditches, storm drains, and oil/water separators. Pollutants can be mobilized during storm events and carried into a receiving water body. Additionally, accumulated sediment and debris can restrict flow of stormwater, resulting in local flooding and property damage.

(1) Minimum Requirements

- (A) Remove sediment in catch basins when it is more than half-full or when the sediment is within 18 inches of the bottom of the outlet pipe.
- (B) Inspect and maintain all temporary and permanent stormwater facilities according to the operation and maintenance procedures provided by the manufacturer or as contained in this rule.
- (C) Promptly repair or replace all substantially cracked or otherwise damaged secondary containment structures and fix any deterioration that threatens the structural integrity of a facility.
- (D) Replace cleanout gates, catch basin lids, and rocks in emergency spillways.
- (E) Post placards that say “Dump No Waste—Drains to Stream” or equivalent on or adjacent to all storm drain inlets wherever practical.

1.7 – Source Control Requirements for Pollution Generating Activities

Sites at which pollution-generating activities are conducted are required to implement source control best management practices as described in this section.

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(a) Transferring Fuel from Bulk Storage Tanks to Vehicles, Equipment, or Mobile Containers

(1) Applicability

The requirements in this section apply to all development where vehicles, equipment, or fuel tanks are refueled on the premises. A fuel-dispensing facility is defined as the area where fuel is transferred from bulk storage tanks to vehicles, equipment, and/or mobile containers, including fuel islands, above- or belowground fuel tanks, fuel pumps, and the surrounding pad. Propane tanks are exempt from these requirements.

Existing fueling areas are recommended, but not required to install source controls identified in this section if the scope of work is limited to the following:

- (i) A new canopy installation over an existing fuel pad that is not being upgraded; or
- (ii) The replacement of a fuel pump on an existing fuel pad that is not being upgraded.

If any development/redevelopment activities are made to the fueling activity area and/or pad, such as re-grading or surface replacement, then the project is required to comply with all fueling activity source controls identified in this section.

(2) Requirements

(A) Cover

The fuel-dispensing area shall be covered with a permanent canopy, roof, or awning so precipitation cannot come in contact with the fueling activity area. Rainfall shall be directed from the cover to a stormwater disposal point that meets all applicable Code requirements. Covers shall have a minimum overhang of five feet on each side. The overhang shall be measured relative to the perimeter of the hydraulically isolated fueling activity area it is to cover. The applicant may apply for a design exception if the fuel-dispensing area is generally used to service oversized equipment (e.g., cranes) that cannot maneuver under a roof or canopy.

(B) Pavement

A paved fueling pad of asphalt or concrete shall be placed under and around the fueling activity area and shall meet all applicable building code requirements. Sizing of the paved area shall be adequate to cover the fueling area (defined as pump location plus length of hose), including placement and number of vehicles or pieces of equipment to be fueled by each pump.

(C) Drainage

The paved area beneath the cover shall be hydraulically isolated from the surrounding area through grading, berms, or drains. This will prevent uncontaminated stormwater from running onto the area and carrying pollutants away. Drainage from the hydraulically isolated area shall be directed through a City-approved oil/water separator prior to discharge to an approved City sanitary sewer or authorized pretreatment facility. Surrounding runoff shall be directed

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away from the hydraulically isolated fueling pad to a stormwater disposal point that meets all stormwater management requirements of this rule and other applicable Code requirements.

(D) Signage

Signs shall be provided at the fuel-dispensing area and shall be plainly visible from all fueling activity areas. See Appendix B for examples. The signs shall describe immediate actions to be taken in the event of a spill.

(E) Oil/Water Separator

A City-approved minimum 1,000-gallon oil/water separator shall be installed on the discharge line of the fueling pad (before the domestic waste line tie-in) and shall be located on private property.

(F) Shutoff Valves

Shutoff valves are required to protect City sanitary sewer systems from spill risks from chemicals and other constituents that present a danger for widespread contamination, system damages, or risk to the public health. Shutoff valves are required for any of the following situations:

- (i) Fuel tanks and fueling facilities, including gasoline, diesel, oil, biodiesel, solvents, degreasers, and lubricants.
- (ii) Site or activity areas that are exposed to corrosives or oxidizers that can harm conveyance system components (e.g., battery acid).
- (iii) Substances (e.g., oil and grease) that do not settle or remain in one location, and are capable of being dissolved in or float on water. These substances can spread rapidly into downstream conveyance and disposal systems, causing widespread impacts and difficult cleanup situations.
- (iv) Substances that are known to infiltrate through soils and contaminate groundwater.

Traffic pathways that surround fueling pads may require a valve on the stormwater system because of the risk of spills during fueling operations. Valves installed on stormwater systems shall be installed downstream of all applicable private stormwater quality facilities to accommodate spill containment. These valves shall be left open to facilitate stormwater flows during normal conditions, and shall be immediately closed in the event of a spill.

Fueling pads require a valve downstream of the oil/water separator. Valves installed on sanitary sewer systems shall be installed before the domestic waste line tie-in. These valves shall remain shut except when opening is necessary to allow incidental drainage activities that do not pose a threat or risk to the sanitary sewer system.

Shutoff valves shall not be placed in a location where access may be restricted (such as vehicle parking spaces or spill hazard area), and the facility shall have an operating key or handle available in the immediate area. Shutoff valves shall be located on private property and downstream of the exposed area's collection

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system. All valves shall be installed and maintained as per manufacturer's recommendations.

(3) Additional Requirements

- (A)** A Source Control Installations Form is located in Appendix C and shall be submitted as part of the building permit application to facilitate tracking of spill control manholes and shutoff valve installations. This form may also be used by the City for inspection purposes.
- (B)** Installation, alteration, or removal of aboveground fuel tanks larger than 55 gallons (or 660 gallons in cumulative fuel storage in one location), and any related equipment, are subject to additional permitting requirements. For technical questions and permitting, contact the City of Salem Public Works, Environmental Services Section.
- (C)** Bulk fuel terminals, also known as tank farms, require the following:
- (i)** Secondary containment equal to 110 percent of the product's largest container or 10 percent of the total volume of product stored, whichever is larger, plus the addition volume caused by 15 minutes of rainfall per National Fire Protection Association (NFPA) requirements or fire suppression flows as noted in City Design Standards for detention.
 - (ii)** A separate containment area for all valves, pumps, and coupling areas, with bermed areas, either in front of, or inside the main containment areas. These bermed areas shall have rain shields and be directed through a City-approved oil/water separator to a City sanitary sewer system for disposal. A secondary valve shall be installed before the separator to allow the discharge of clean uncontaminated rainwater to the stormwater system instead of the sanitary sewer. If no City sanitary sewer is available, drainage shall be directed to a temporary holding facility for proper disposal and may require a DEQ-issued Water Pollution Control Facility (WPCF) permit.
 - (iii)** An impervious floor within all containment areas. Floors shall be sealed to prevent spills from contaminating the underlying soil or groundwater.
 - (iv)** Truck loading and off-loading areas. These areas shall follow cover, pavement, drainage, spill control, oil/water separator, and shutoff valve requirements identified for fuel-dispensing facilities.
 - (v)** Shutoff valves shall be installed for the drainage of the tank yard in a location away from the tanks to allow access during fire or emergency events. The valves shall be installed downstream of the drainage system of the primary containment area and kept closed. Valves installed for the drainage of the truck pad and sub-bermed containment areas shall be installed on the sanitary waste line downstream of the spill control manhole.

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(vi) An approved Wastewater Discharge Permit Application is required from the City before draining a containment area. This authorization will determine appropriate disposal methods, identify pretreatment requirements (if applicable), and authorize the discharge. Pretreatment may be required for oil and grease removal, and testing may be required to establish the specific characteristics of the discharge. Contact the City of Salem Public Works, Environmental Services Section, to request such authorization.

(D) Underground fuel tanks less than 4,000 gallons in size are subject to additional permitting requirements by DEQ, and tanks larger than 4,000 gallons are referred to the federal Environmental Protection Agency.

(b) Storing Fuel, Solid or Liquid Chemicals, Food Products, Waste Oils, Solvent, Process Wastewaters, or Petroleum Products other than Fuel in Aboveground Containers.

(1) Applicability

The requirements in this section apply to all development where there is any exterior storage of solid or liquid chemicals, food products, waste oils, solvents, process wastewaters, or petroleum products in aboveground containers, in quantities of 50 gallons or more or reportable quantities per federal reporting requirements. This includes both permanent storage and temporary storage areas. Underground storage tanks or installations that have obtained a WPCF permit from DEQ are exempt from these requirements.

(2) Requirements

(A) Containment

Liquid materials shall be stored and contained in such a manner that if the container(s) is ruptured, the contents will not discharge, flow, or be washed into a sanitary sewer, storm sewer, or conveyance facility, or a receiving stream. A containment device and/or structure for accidental spills shall have enough capacity to capture a minimum of 110 percent of the product's largest container, or 10 percent of the total volume of product stored, whichever is larger, plus the addition volume caused by 15 minutes of rainfall 15 or fire suppression flows per NFPA requirements.

Labeled NFPA double-walled containers are exempt from these spill containment requirements.

Exempt from the spill requirements are the following:

(i) Janitorial and cleaning supplies of less than 100 pounds net weight or 15 gallons net volume. These supplies shall be packaged for consumer use in containers of 5 gallons or less or having a net weight of less than 30 pounds per container. This does not include cleaners or solvents used for cleaning machinery or motor vehicle and machine parts.

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- (ii) Office and stationary supplies less than 100 pounds net weight. These supplies shall be packaged for consumer use in containers sized less than 5 gallons in size or 30 pounds in weight.

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(B) Cover

Storage containers (other than tanks) shall be completely covered so rainfall cannot come in contact with them. Runoff shall be directed from the cover to a stormwater disposal point that meets all applicable Code requirements.

- (i) Covers 10 feet high or less shall have a minimum overhang of 3 feet on each side. The overhang shall be measured relative to the perimeter of the hydraulically-isolated activity area. If full height walls are provided on the weather sides, no overhang is required on that side.
- (ii) Covers higher than 10 feet shall have a minimum overhang of 5 feet on each side. The overhang shall be measured relative to the perimeter of the hydraulically-isolated activity area. If full height walls are provided on the weather sides, no overhang is required on that side.

(C) Pavement

A paved storage area is required unless otherwise approved by the Public Works Director. The storage area shall be paved with asphalt or concrete and shall meet all applicable building code requirements. Sizing of the paved areas shall be adequate to cover the area intended for storage. Aboveground fueling facilities have a potential for spills during fueling activities and shall conform to applicable source control requirements of Section 1.7.

(D) Drainage

- (i) All paved storage areas shall be hydraulically isolated through grading, berms, or drains to prevent uncontaminated stormwater runoff to the storage area.
- (ii) Covered storage areas: Significant amounts of precipitation are not expected to accumulate in covered storage areas; therefore, drainage facilities are not required for the contained area beneath the cover. If the applicant elects to install drainage facilities, the drainage from the hydraulically isolated area shall be directed to an approved City sanitary sewer or authorized pretreatment facility. The associated drain valve shall remain in the closed position, and be opened to drain to the sanitary sewer only after inspection verifies no contamination.
- (iii) Covered storage areas: A shutoff valve may be required for the covered storage area if the applicant elects to install drainage facilities to an approved City sanitary sewer. The City will make this determination based on the type of material stored and the proposed sanitary sewer system receiving the discharge.
- (iv) Uncovered storage areas with containment: Water will accumulate in uncovered storage areas during and after rain. Frequent draining may be required during the wet season. Some type of monitoring may also be needed to determine the characteristics and level of contamination of the stormwater. Contaminated water cannot simply be drained from the area. It must be collected, inspected, and

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possibly tested at the expense of the property owner before proper disposal can be determined and authorized.

- (v) Drains in covered areas may require wastewater pretreatment before discharging to the sanitary sewer. Contact the City of Salem Public Works, Environmental Services Section, for a determination of the type of pretreatment required.
- (vi) Uncovered storage areas: A shutoff valve and/or treatment shall be installed in the storage area so excess stormwater can be drained out of the activity area and directed either to the City-approved stormwater facilities (if clean) or into the City sanitary sewer or authorized pretreatment facility (if contaminated). Except when excess stormwater is being discharged, the valve shall always be kept closed so any spills within the activity area can be effectively contained.
- (vii) All discharges to the sanitary sewer shall be considered batch discharges and shall require an approved Wastewater Discharge Permit Application prior to discharge. Pretreatment requirements shall be set as part of the discharge approval process, based on the types and quantities of material to be discharged. A discharge evaluation shall be performed before connection to a sanitary sewer. Testing may be required to establish characteristics of the wastewater or contaminated stormwater and to verify that local wastewater discharge limits are not exceeded. Contact the City of Salem Public Works, Environmental Services Section, for additional information.

(E) Signage

Signage describing actions to be taken in the event of a spill shall be provided at the chemical storage area and shall be plainly visible from all surrounding activity areas. (An example is provided in Appendix B.)

- (i) A Source Control Installations form is located in Appendix C and shall be submitted as part of the building permit application to facilitate tracking of spill control manholes and shut off valve installations. This form will also be utilized for inspection purposes.
- (ii) Tank farms shall follow the criteria established for fuel-dispensing facilities in this section. Exceptions may be granted, based on the product being stored. Requests for an exception will require an additional review process and may delay issuance of related building permits.
- (iii) Storage of reactive, ignitable, or flammable liquids shall comply with the Uniform Fire Code as adopted by the State of Oregon. Source controls presented in this section are intended to complement, not conflict with, current fire code requirements. None

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of these requirements shall exclude or supersede any other requirements in this rule, other City permit requirements, or state and federal laws pertaining to water quality. Contact the City of Salem Public Works, Environmental Services Section, for further information and requirements.

(c) Storing Solid Wastes in Compactors, Dumpsters, and Garbage Cans

(1) Applicability

The requirements in this section apply to all commercial and industrial development with facilities that store solid wastes (both food and nonfood wastes). A solid waste storage area is a place where solid waste containers are collectively stored. Solid waste containers include compactors, dumpsters, and garbage cans. Requirements of this section also apply to activity areas used to collect and store refuse or recyclable materials, such as can or bottle return stations and debris collection areas.

This section applies to multifamily residential sites of three or more units if a shared trash collection area is proposed.

The requirements of this section do not apply to single-family homes, duplexes, or debris collection areas used for the temporary storage of wood pallets or cardboard.

(2) Requirements

The following design requirements apply for approval of solid waste storage and handling activity areas in the City. The text below clarifies each requirement. As an alternative for installing a permanent cover over trash area, a Trash Area Management Plan may be submitted per Appendix D.

(A) Cover

A permanent canopy, roof, or awning shall be provided to cover the solid waste storage activity area and shall be constructed to cover the activity area so rainfall cannot come in contact with the waste materials being stored. The cover shall be sized relative to the perimeter of the hydraulically isolated activity area it is to cover. Runoff shall be directed from the cover to a stormwater disposal point that meets the requirements of this rule and all applicable City codes.

(B) Pavement

A paved waste storage area is required when a structural cover or trash compactor is used. The area shall be paved with asphalt or concrete and meet all applicable building code requirements. Sizing of the paved area shall adequately cover the activity area intended for refuse storage, or the trash compactor(s) and associated equipment.

(C) Isolation

Hydraulic isolation shall be provided for the solid waste storage activity area and shall be designed to prevent uncontaminated stormwater runoff from entering the area and carrying pollutants away. Runoff occurring outside the hydraulically isolated area shall be directed to a stormwater disposal point that

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meets all applicable Code requirements. This can be achieved by reverse grading at the perimeter of an activity area, perimeter curbing or berming, or the use of area drains to collect and divert runoff.

(D) Drainage

Drainage shall be provided for the hydraulically isolated solid waste storage area and directed to an approved City sanitary sewer or authorized pretreatment facility.

Activity areas that do not have gravity sanitary sewer service may be allowed to install a pressurized system. With these types of installations, the following items shall be provided at the time of building permit application:

- (i) Verification or evidence that gravity service cannot be obtained.
- (ii) Details of an electronic sump pump system equipped with a float switch.
- (iii) Pressurized system installations are considered “permanent equipment” and deemed the property owner’s liability in the event of system failure or if the property becomes vacated.

The City will review all sump pump or sewage ejector installations for compliance with the Oregon State Plumbing Specialty Code. The City will also review the proposed installation for compliance with the *Public Works Design Standards*.

(3) Additional Requirements

- (A) Multifamily developments with shared solid waste storage areas may be allowed an alternative to the sanitary sewer drain for the hydraulically isolated solid waste storage area. This activity area may be allowed to drain to the site’s privately owned and operated stormwater pollution reduction facility if gravity service to the sanitary sewer pipe of the development cannot be obtained. For the alternative to be considered, information showing that gravity service cannot be obtained shall be submitted to the Public Works Director. All other requirements previously outlined for multifamily uses shall apply.
- (B) If gravity service to the sanitary sewer lines cannot be obtained, a special request may be made to direct the drainage from the hydraulically isolated activity area to the development’s stormwater pollution reduction facility. This applies only to multifamily uses.
- (C) Due to the potential for spills and leakage, pretreatment must be provided in all solid waste storage areas containing grease, oil, or storage containers.
- (D) If City staff determines sanitary sewer service is unavailable, draining the solid waste storage area to an approved dry sump is preferred over discharging to the stormwater system. These installations will be considered on a case-by-case basis, and may be subject to DEQ’s Underground Injection Control (UIC) Program.

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(E) Compactors have been found to be a significant source of pollutants due to leakage associated with aging gaskets and rusting containers. Covers are required for compactors unless there is an approved direct sanitary connection conveying all flows draining from the unit.

(d) Storing Material that is Soluble or Can Be Mobilized in Water and that is known to Contain Pollutants

(1) Applicability

The requirements of this section apply to sites that stockpile or store in outdoor containers materials that may erode or have adverse impacts to stormwater quality. The materials are separated into three categories, based on risk assessments for each material stored: high-risk, low-risk, and exempt. (See Table 1)

Table 1: Storage Material Risk Type

High-Risk Materials	Low-Risk Materials	Exempt Materials (for clean products only, having no pollutant runoff)
<ul style="list-style-type: none"> • Recycling materials with potential effluent. • Any hazardous materials (flammable, reactive, corrosive, toxic, or other hazard). • Chalk/gypsum products. • Feedstock/grain. • Material by-products with potential effluent. • Contaminated soil piles. • Fertilizer. • Pesticides/herbicides. • Lime/lye/soda ash. • Animal/human wastes. • Chemical storage or distribution areas. • Automotive recycling and junkyards. • All cryogenic materials. 	<ul style="list-style-type: none"> • Recycling materials without potential effluent. • Scrap or salvage goods. • Metal. • Sawdust/bark chips. • Sand/dirt/soil. • Material by-products without potential effluent. • Unwashed gravel/rock. • Compost. • Asphalt storage. • Processing of food items (also addressed by the City's wastewater pretreatment program). • Treated wood products. • Newly plated zinc products. 	<ul style="list-style-type: none"> • Washed gravel/rock. • Finished lumber. • Rubber and plastic products (hoses, gaskets, pipe, etc.) • Clean concrete products (blocks, pipe, etc.) • Glass products (new, nonrecycled). • Inert products.

Materials with any of the following characteristics are exempt from the requirements of this section if they:

- (i) Have no measurable solubility or mobility in water and no hazardous, toxic, or flammable properties.
- (ii) Exist in a gaseous form at ambient temperature.

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- (iii) Are contained in a manner that prevents any and all contact with stormwater.

(2) Requirements

(A) Cover

- (i) Low-risk materials shall be covered with a temporary plastic film or sheeting at a minimum where there is risk with contact of precipitation.
- (ii) High-risk materials shall be permanently covered with a canopy or roof and contained in a manner that prevents stormwater contact and minimizes the quantity of rainfall entering the storage area. Runoff shall be directed from the cover to an approved stormwater disposal point that meets the requirements of this rule and all applicable City Code requirements.
- (iii) Covers 10 feet high or less shall have a minimum overhang of three feet on each side. The overhang shall be measured relative to the perimeter of the hydraulically isolated activity area. If full height walls are provided on the weather sides, no overhang is required on that side.
- (iv) Covers higher than 10 feet shall have a minimum overhang of five feet on each side. The overhang shall be measured relative to the perimeter of the hydraulically isolated activity area. If full height walls are provided on the weather sides, no overhang is required on that side.

(B) Pavement

- (i) Low-risk material storage areas are not required to be paved.
- (ii) High-risk material storage areas shall be paved beneath the structural cover. Sizing of the paved area shall adequately cover the activity area intended for storage.

(C) Drainage

- (i) Low-risk material storage areas are typically allowed in areas served by standard stormwater management systems. However, all erodible materials being stored must be protected from rainfall or the runoff from storage areas should be properly directed to an appropriate City-approved stormwater treatment facility prior to discharge.
- (ii) If materials are erodible, a structural containment barrier shall be placed on at least three sides of every stockpile. The barrier shall be tall enough to prevent run-on of uncontaminated stormwater into the storage area and migration of the stored materials as a result of being blown or washed away. If the area under the stockpile is paved, the barrier can be constructed of asphalt berms, concrete curbing, or retaining walls. If the area under the stockpile is unpaved, sunken retaining walls or ecology blocks can be used. The applicant shall clearly identify the method of containment on the building plans.

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- (iii) For high-risk material storage areas, the paved area beneath the structural cover shall be hydraulically isolated through grading, structural containment berms or walls, or perimeter drains to prevent uncontaminated stormwater from running onto the area and carrying pollutants away. Significant amounts of precipitation are not expected to accumulate in covered storage areas, and drainage facilities are not required for the contained area beneath the cover. If the applicant elects to install drainage facilities, the drainage from the hydraulically isolated area shall be directed to an approved City sanitary sewer or authorized pretreatment facility.

(D) Signage

Signage shall be provided at the storage area if hazardous materials or other materials of concern are stored. See Appendix B for examples. Signage shall be located so it is plainly visible from all storage activity areas. More than one sign may be needed to accommodate large storage areas.

(3) Additional Requirements

- (A) A Source Control Installations form is located in Appendix C and shall be submitted as part of the building permit application to facilitate tracking of spill control manholes and shutoff valve installations. This form will also be utilized for inspection purposes.
- (B) A sampling manhole or other suitable stormwater monitoring access point may be required to monitor stormwater runoff from the storage area. This may apply to certain types of storage activities and materials or if an alternative source control is proposed. The City staff will review the proposed activity for applicability of this requirement.
- (C) A shutoff valve will be required for the structurally covered storage area if the applicant elects to install drainage facilities that discharge to an approved City sanitary sewer or pretreatment device. The City will make this determination based on the type of material stored and the proposed system receiving the discharge.
- (D) Storage of hazardous materials that are flammable, corrosive, reactive, toxic, carcinogenic, or halogenated solvents will most likely be subject to additional federal, state, and City requirements on a case-by-case basis.

(e) Operating Equipment and Vehicle Washing Facilities

(1) Applicability

The requirements in this section apply to all sites with a designated equipment and/or vehicle washing or steam cleaning area. This includes smaller activity areas, such as wheel-washing stations. The requirements do not apply to residential sites.

(2) Requirements

(A) Cover

- (i) Unless the washing area is an enclosed “tunnel” operation that fully captures and recycles its wash water, the washing area shall be covered with a

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permanent canopy or roof so precipitation cannot come in contact with the washing activity area. Precipitation shall be directed from the cover to a stormwater disposal point that meets all applicable Code requirements.

- (ii) Covers 10 feet high or less shall have a minimum overhang of three feet on each side. The overhang shall be measured relative to the perimeter of the hydraulically isolated washing activity area it is to cover.
- (iii) Covers higher than 10 feet shall have a minimum overhang of five feet on each side. The overhang shall be measured relative to the perimeter of the hydraulically isolated washing activity area it is to cover.
- (iv) The applicant may request a design exception if it is determined a washing activity area is generally used to service oversized equipment that cannot maneuver under a roof or canopy.

(B) Pavement

A paved wash pad of asphalt or concrete shall be placed under and around the washing activity area and shall meet all applicable building code requirements. Sizing of the paved area shall adequately cover the activity area, including the placement of the vehicle or piece of equipment to be cleaned.

(C) Drainage

The paved area beneath the cover shall be hydraulically isolated through grading, berms, or drains to prevent uncontaminated stormwater from running onto the area and carrying pollutants away. Drainage from the hydraulically isolated area shall be directed to an approved City sanitary sewer or authorized pretreatment facility. Surrounding runoff shall be directed away from the hydraulically isolated washing pad to a stormwater disposal point that meets all applicable requirements of this rule.

(D) Oil Controls

All vehicle and equipment washing activities will be equipped with an approved oil/water separator system unless otherwise authorized by City staff. The system shall comply with the City's sanitary sewer discharge prohibitions. The following design criteria are established for oil/water separators discharging to a sanitary sewer:

(i) Washing Areas Protected with a Cover or Located Inside a Structure

- Baffled oil/water separators and spill control (SC-type) separators may be allowed for use with equipment and/or vehicle washing applications solely on a case-by-case basis as approved by the City.
- Coalescing plate separators shall be designed to remove nonpolar oil and grease in the effluent from the peak flow generated by the washing activity.
- Any pumping devices shall be installed downstream of the separator to prevent oil emulsification.

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- Separator details must be shown on the building plans submitted at the time of building permit application and shall match manufacturer specifications and details, including the unit flow rate, effluent water quality, and maximum process flow rate.
- (ii) **Washing Areas Exposed to Rainfall by Exception Only (See Appendix E for information on Storm/Sanitary Diversion Valve Systems.)**
- Washing areas exposed to rainfall will be accepted into the City's sanitary sewer system by exception only. Wastewater volume charges will be applicable because the City will charge the owner wastewater volume charges for the stormwater discharged to separate sanitary sewer systems. The wastewater volume charges will be based on the impervious area and average rainfall, or by the installation of a discharge meter. The discharge will be charged at sanitary sewer volume rates.
 - Oil/water separators shall be installed to catch all runoff from the wash slab. The slab and surrounding area shall be graded to capture all wash water on the slab, but keep uncontaminated runoff outside of the slab area.
 - A City-approved sanitary/storm diversion valve shall be installed and maintained in proper operating condition. When water is turned on at the wash slab, the valve shall automatically divert flows to the sanitary sewer. When wash water is turned off, the valve shall continue to drain to the sanitary sewer for 15 minutes, and shall then automatically close to the sanitary sewer and open to the storm drain.

(iii) **On-site Wash Water Recycling Systems**

Wash water recycling systems may be used for oil control as long as they can meet effluent discharge limits for the City's sanitary sewer system. A detail of the wash water recycling system and vendor specifications identifying effluent efficiencies shall be submitted as part of the building plans at the time of building permit application. The applicant may request a design exception if an evaporation unit is installed as part of a wash water recycling system.

NOTE: The cover requirement cannot be waived for evaporation units because of the sizing and capacity limitations of the individual units.

(f) **Conducting Ground-disturbing Activity on Property with Known or Suspected Contamination from Hazardous Substances**

(1) **Applicability**

The requirements in this section apply to all development projects that disturb property at risk, suspected, or known to contain pollutants in the soil or groundwater. This includes development that is surrounded or bounded by properties found to have trace pollutants. These requirements will also be applied to any property that is seeking to make a new connection to a public stormwater system from a property that is at risk,

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suspected, or known to contain pollutants in the soil or groundwater. To avoid confusion with references to water quality pollutant throughout this rule, this section refers to pollutants as contaminants and/or contamination.

Because of local, state, and federal regulations, special handling and management of site soils, groundwater, and surface drainage may be necessary. As a result of these regulations, sites with suspected or known contamination require a more detailed review process and may delay issuance of related building permits. Contact the City of Salem Public Works early on in the project planning and design process (before plan submittal) if they are aware or suspect the site has contaminants or is adjacent to a contaminated site.

To research contaminant information, refer to DEQ's facility profiler database, which can be found at: <http://deq12.deq.state.or.us>

If records indicate that a No Further Action (NFA) or Record of Decision (ROD) exists for your site, you must contact DEQ prior to pre- and post-construction activities to ensure conditions of record are not violated. For technical questions related to site contamination and cleanup, contact the Land Quality Division of DEQ.

Even if a site is not included in DEQ's tracking database, this does not mean that contamination may not be present. At a minimum, if a site has a history of commercial or industrial use, a Phase I site assessment should be performed prior to design.

Contaminants have the potential to become entrained and transported through exposure to construction activities and post-construction design elements of a development. The requirements in this section apply to:

- (A) Excavation and stockpiling of contaminated soils (soil management).
- (B) Disposal or reuse facilities related to groundwater, foundation or footing drains, interior floor drains in basements or subgrade structures, construction dewatering, and surface stormwater treatment and conveyance systems.

(2) Requirements

Stormwater discharges from sites suspected of contamination, whether proposed as a temporary construction connection or as a permanent connection to any public system, will require a special authorization from the Public Works Director.

Contaminants, media, and site conditions are unique to each parcel of land. Sites at risk for contamination shall, therefore, be reviewed on a case-by-case basis. After reviewing the proposal and a characterization of the contaminants from the site, the Public Works Director may make one of the following decisions:

- Approve discharges with restrictions as described in this section or as is necessary given the nature of the discharge;
- Require the applicant to obtain an NPDES permit from DEQ for the anticipated discharge prior to connection;

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- Require that the applicant become part of the City's Industrial Pretreatment Program;
- Deny the request to use the City stormwater system; or
- Allow unrestricted connection to the city stormwater system, with a testing point for future monitoring.

(A) Soil Management

- (i) Stockpiles of contaminated soils shall be covered with temporary plastic film or sheeting to prevent contact with stormwater.
- (ii) Stockpile perimeters shall have a containment barrier on all four sides of every stockpile to prevent stormwater run-on and material runoff. Barriers can consist of concrete curbing, silt fencing, or other berming material, depending on the activity, size, and resources available.
- (iii) Areas under stockpiles of contaminated soils are not required to be paved. However, an impervious layer shall be placed beneath the stockpile to protect uncontaminated areas from potential leachate.

(B) Construction Dewatering

- (i) All construction dewatering discharges resulting from groundwater or precipitation (rainfall) will be evaluated for contamination before disposal methods can be approved. Discharges shall comply with the requirements of this rule, City of Salem regulations, and DEQ regulations.
- (ii) Laboratory analysis reports will be required, as defined later in this section.
- (iii) If needed, a temporary sampling point will be designated by the City.
- (iv) Source control requirements will be identified as part of the review process for the building permit application. Source controls, sampling points, and the disposal point shall be identified on the erosion control plan of the building permit application.
- (v) If on-site infiltration is the proposed method for disposal, authorizations are required from the Public Works Director. Infiltration systems for construction dewatering shall be located and maintained on private property, outside the public rights-of-way.
- (vi) If a public sanitary sewer system is the proposed method of disposal, authorizations are required from the City and will be allowed only if the City-approved pretreatment facilities are in place and fully operational and the discharge is approved in accordance with the City's *Pretreatment Program* (see SRC Chapter 74). All groundwater and surface water discharges to a sanitary sewer system shall meet local discharge limits and will be subject to wastewater discharge volume charges.
- (vii) If a public stormwater system is the proposed method of disposal, evaluation of the proposal will be based on whether the discharges meet, or can be pretreated to meet, the requirements of this rule, the City's NPDES MS4

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Permit and other applicable City codes, or other state and federal regulations for the receiving surface water.

- (viii) If a receiving stream is the proposed method for disposal, authorizations are required from the Public Works Director and DEQ.
- (ix) For technical assistance on obtaining a batch discharge authorization for construction dewatering activities, contact the City of Salem Public Works, Environmental Services Section. Discharges to waters of the State will require the approval of and a permit from the DEQ.

(C) Post-Construction Surface Drainage Systems

- (i) If on-site infiltration is the proposed method for disposal, authorizations are required from the City and the DEQ. Private infiltration systems shall be located and maintained on private property, outside the public right-of-way.
- (ii) If a receiving stream is the proposed method for disposal, authorizations are required from the City, the DEQ, and perhaps the Oregon Department of State Lands and U.S. Army Corps of Engineers.
- (iii) If an off-site public storm or sanitary sewer system is the proposed method for disposal, authorization is required from the Public Works Director. Evaluations for discharges from sites with suspected contamination will be based on the following:
 - Surface drainage systems that are not exposed to industrial activities, pollutants, contaminated soils, or subsurface discharges are not expected to contain contaminants and do not pose a threat to the City's infrastructure. All discharges to a public sanitary sewer or stormwater system will need a sanitary sewer or stormwater connection permit.
 - A permanent monitoring point may be required to ensure compliance with local discharge regulations. If monitoring is necessary, a permanent structure (such as a sampling manhole or flow-through vault) shall be installed on the discharge line of the drainage system.

(D) Post-Construction Water Reclamation or Reuse Systems, General

Water reclamation or reuse systems provide innovative ways to use natural resources and save money. However, using groundwater as a resource from sites at risk of contamination may require additional source controls and environmental compliance measures, depending on the nature of the contaminants and the extent of the remediation that has been completed. Authorizations for reuse systems are required from the City's Building and Safety Division, the DEQ, and possibly the Oregon Department of Water Resources.

(E) Post-Construction Water Reclamation or Reuse Systems, Surface Drainage System Resource

If surface drainage systems are the proposed resource, discharges shall not contain contaminants and shall not pose a threat to City infrastructure or the environment.

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Review will verify that there is no interaction between groundwater and the surface. Nonpotable uses from plumbing fixtures and industrial equipment (e.g., cooling towers or boilers) will require the following:

- (i) A discharge meter shall be installed on the outlet of the reuse system for sanitary sewer billing purposes.
- (ii) Industrial equipment bleed-offs or drain valves shall have discharges routed to the sanitary waste line of the facility. Discharges shall meet local discharge limits and requirements as stated in SRC Chapter 74.
- (iii) Overflows from the reuse system, prior to use, are not considered a wastewater and shall have discharges routed to the storm disposal system of the facility.
- (iv) Irrigation systems may encourage transportation of contaminants and require authorization from the DEQ prior to installation.

(F) Post-Construction Water Reclamation or Reuse Systems, Subsurface Drainage System Resource

If subsurface drainage systems are the proposed resource, discharges may contain contaminants and will be evaluated for contamination before disposal methods can be approved. Nonpotable uses for plumbing fixtures and industrial equipment (e.g., cooling towers or boilers) will require the following:

- (i) A discharge meter shall be installed on the outlet of the reuse system for sewer billing purposes.
- (ii) Industrial equipment bleed-offs or drain valves shall have discharges routed to the sanitary waste line of the facility. Discharges shall meet local discharge limits and requirements as stated in SRC Chapter 74.
- (iii) Because overflows from the reuse system may contain contaminants, the requirements of Post-Construction Subsurface Drainage Systems apply. (See Section 1.7(f).)
- (iv) A permanent monitoring point may be required to ensure compliance with local discharge regulations. If monitoring is necessary, a permanent structure (such as a sampling manhole or flow-through vault) shall be installed on the discharge line of the subsurface drainage system.
- (v) Irrigation systems may encourage transportation of contaminants and require authorization from the DEQ prior to installation.

If groundwater is proposed for commercial or industrial uses of a development (e.g., nonpotable uses or irrigation) authorization or a permit may be required from the Oregon Water Resources Department (WRD) prior to use. For assistance in obtaining authorization for the use of groundwater, contact WRD's Water Master for Marion or Polk County, as appropriate. For more information on water rights and groundwater regulations, see the WRD website at: www.wrd.state.or.us

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(G) Post-Construction Subsurface Drainage Systems

- (i) In an area at risk for contamination, structures proposed below grade can greatly impact and add unexpected costs to the surface drainage systems, water reclamation or reuse systems, and subsurface drainage systems of a project. All surface, subsurface, and reuse systems will be evaluated for contamination risks before disposal and reuse methods can be approved.
- (ii) If on-site infiltration is the proposed method for disposal, authorizations are required from the City's Building and Safety Division and the DEQ.
- (iii) Private infiltration systems shall be located and maintained on private property, outside the public right-of-way. If crossings of public right-of-way are necessary, authorizations and permits are required from the City.
- (iv) If on-site subsurface injection is the proposed method for disposal, authorizations are required from the DEQ.
- (v) If a receiving stream is the proposed method for disposal, authorizations are required from the Public Works Director. If crossings of public right-of-way are necessary to obtain access to an approved discharge point of a receiving stream, authorizations and permits are required from the City.
- (vi) If a Public stormwater system and/or sanitary sewer system is the proposed method for disposal, authorization is required from the Public Works Director. A permanent monitoring point may be required to ensure compliance with local discharge regulations.

(H) Laboratory Analysis Reports

Laboratory analysis reports are required to identify the characteristics and levels of contamination in the soils and groundwater of a site.

An additional review process will be applied to these laboratory reports to determine regulatory authority and requirements. Testing and analysis are highly recommended prior to submitting building permit applications. DEQ permitting and/or review may be required if contaminants are found and the levels of contamination appear to exceed the City's local discharge regulations. This may delay issuance of related building permits.

Laboratory analysis reports shall include the following information:

- (i) Analysis reports shall identify the elevation of the seasonal water table and identify the depth of any perched water aquifers.
- (ii) Analysis reports shall identify the method of laboratory testing, the detection level and analytical method used for detection, and the depth of any found contaminants in the soils.

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- (iii) Minimum test parameters for baseline contaminants shall include metals (arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium, silver, and zinc), TPH (total petroleum hydrocarbons), and BTEX (benzene, toluene, ethyl benzene, and xylene).
- (iv) Test parameters may be required to include other contaminants identified as having a likely potential presence at the site through historical data, research, or environmental assessments.

(3) Additional Requirements

All structural controls in this section require a Source Control Installations form located at the end of this section. Typical controls requiring such a form include containment areas, shutoff valves, and oil/water separators. If an applicant requests an alternative or exception to any of the source controls identified in this section, the applicant shall submit their requests and supportive information to the Public Works Director. These types of requests require an additional review process and may delay issuance of related building or public works permits.

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Appendix A to 109-012 – Request for Alternative Source Control Form

This form is required by applicants requesting alternatives to standard structural source controls, removal or abandonment of existing source controls, or other special requests requiring review and approval by City staff. Special requests will require an additional review process and may delay issuance of related building permits.

(Please Print)

PROPERTY INFORMATION

Property Name
(if applicable): _____

Property Address or
Location: _____

Type of activity,
business or facility: _____

Property Contact or
Owner: _____

Phone
No.: _____

Standard Industrial
Classification (SIC)
Code: _____

APPLICANT INFORMATION

Applicant's
Name: _____

Phone
No.: _____

Applicant's Mailing
Address: _____

SPECIAL REQUEST

Building Permit No. (if
applicable): _____

- Request for an alternative source control method
- Request to remove or abandon existing structural source control(s)
- Other: _____

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Appendix A to 109-012 – Request for Alternative Source Control Form

The following items need to accompany this form:

- A detail or vendor specification for each alternative source control,
- A site plan of the facility/property clearly identifying the location on the site that will be impacted by this special request. Existing and proposed utilities may need to be shown to ensure regulatory compliance with local, state, and federal regulations. (*A hand-drawn sketch, not to scale, is acceptable as long as it is legible.*), and
- Operations and Maintenance Plan for pollutant source controls.

Provide a brief explanation for your request (*Use additional pages if necessary.*):

TO BE COMPLETED BY CITY STAFF

Date
Received:

-
-
- Approved Denied Other (*see comments below*)

Date: _____ Signature: _____

City
Comments:

Appendix B to 109-012 – Spill Control Signage Examples

This appendix provides examples of appropriate signs that are required to be posted in areas where fueling operations take place.



Spill sign samples
recommend
PMS 185 red and black
on white



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Appendix C to 109-012 – Source Control Installations Form

SOURCE CONTROL INSTALLATION FORM

This form is required for sites where structural source controls are installed. This form will be used for tracking and inspection purposes.

(Please Print)

FACILITY INFORMATION

Facility Name (if applicable): _____

Facility Address or Location: _____

Type of business/facility: _____

Facility Contact or
Owner: _____ Phone No.: _____

Standard Industrial
Classification (SIC) Code: _____

APPLICANT INFORMATION

Applicant's
Name: _____ Phone No.: _____

Applicant's Mailing Address: _____

STRUCTURAL SOURCE CONTROLS (*check all that apply*)

Building Permit No.
(if applicable): _____

- | | |
|--|--|
| <input type="checkbox"/> Oil/Water Separator | <input type="checkbox"/> Containment Area |
| <input type="checkbox"/> Shut-off Valve on Storm Drainage Line | <input type="checkbox"/> Wall Valve for Containment Area |
| <input type="checkbox"/> Shut-off Valve on Sanitary Waste Line | <input type="checkbox"/> Spill Control Manhole |
| <input type="checkbox"/> Collection Device w/ No Outlet | <input type="checkbox"/> Sampling Structure |
| <input type="checkbox"/> Discharge Meter | <input type="checkbox"/> Other: _____ |
- _____

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Appendix C to 109-012 – Source Control Installations Form

Description of facility operation; types of chemicals and processing materials received and used; locations of materials handling and storage areas; and ultimate method of disposal of waste products, spills, wastewater, and stormwater.

The following items must accompany this form:

- A site plan clearly identifying the location of each structural source control in reference to a permanent structure. The purpose of this plan is to assist staff when conducting field verifications and inspections. A legible, *hand-drawn sketch, not to scale, is acceptable; and*
- Operations and maintenance procedures (if required) for the structural source controls.

City Comments

Appendix D to 109-012 – Trash Area Management Plan

BACKGROUND

The City of Salem is required by state and federal law to prevent, to the maximum extent practicable, pollutants from being discharged into the stormwater system. Sources of pollutants in trash areas include waste material left on the ground, leaking garbage containers, and leachate caused by rainwater flowing through a container or accumulated trash.

A Trash Area Management Plan (TAMP) is an alternative to constructing a cover over a trash area. The TAMP is developed by the business or property owner and describes how a trash area will be managed to ensure pollutants are prevented from entering stormwater system or being discharged to the environment. A draft TAMP shall be submitted for review and approval by Public Works with the application for building permit. The TAMP may be revised or updated by the owner subject to approval by the Public Works Director. If provisions of the TAMP are not followed or do not prevent pollutants from impacting the storm sewer system or the environment, the Public Works Director can revoke the TAMP approval and require an approved trash area cover be constructed.

A TAMP is an agreement between the current property owner or owner/operator of the specified business/property and the City of Salem. Any new owner/operator is required to either submit a new TAMP application to the City of Salem or to construct an approved covered trash area.

CONTENTS OF A TAMP

At a minimum a TAMP must include:

1. Name of the facility/business or property owner (if different from the business owner).
2. Address of the site covered by the TAMP.
3. Name and/or title of the person having the responsibility and authority to implement the TAMP.
4. A facility map showing the location of the trash area, the location(s) of all storm drains that could receive runoff from the trash area, and a description of the area. If no storm drains are present, indicate the slope of the site and where runoff from the trash area would flow (e.g., to ground surfaces, open drainage ways, neighboring property, streets, etc.).
5. A written description of site management practices, including:
6. A copy of a form that will be used to record routine site inspections (e.g., a sheet documenting daily inspection of the area or more frequent inspection for sites with multiple shifts).
7. Nature of business and types of waste produced.
8. Procedure to train employees about TAMP requirements.
9. Procedure employees will follow if a potential problem is found (e.g., trash container lid open, trash on the ground, spills or leakage on the ground, rain water flowing from the area having color or sheen) to prevent runoff from entering the storm sewer system or otherwise leaving the site.
10. Procedure to report and document potential issues preventing the effectiveness of the TAMP.

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Appendix D to 109-012 – Trash Area Management Plan

11. Procedure the business will follow to ensure potential violations of the provisions of the TAMP are corrected and prevented from recurring.
12. Procedure to immediately notify the City in the event any discharge has or may have occurred that has entered a storm drain, a public right-of-way, the environment, or otherwise been discharged from the property.
13. Acknowledgement the TAMP is binding to the property owner and/or business, and any change in business or property ownership will require the new owners or business to be notified of their requirement to provide and submit a new TAMP or construct an approved covered trash area.
14. The property owner and/or original business owner must acknowledge that the TAMP is binding. The TAMP must be signed by the original business owner or person having authority and responsibility to ensure compliance with requirements of the Plan.
15. The TAMP must be signed by the property owner, if different from the business owner.

TRASH AREA MANAGEMENT PLAN APPLICATION BEGINS ON NEXT PAGE

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Appendix D to 109-012 – Trash Area Management Plan

TRASH AREA MANAGEMENT PLAN APPLICATION

This Trash Area Management Plan (TAMP) is being submitted in lieu of constructing a roof or covering over a trash collection area, It outlines action that will be taken to prevent trash area pollutants from entering the storm drain system or the environment.

SECTION 1. BUSINESS/PROPERTY INFORMATION

Business/Property Name	
Site Address	
Business/Property Owner	
Business Mailing Address	
Type of Business	NAICS Code(s)
Facility Operator Name	
Title	Phone No.
Name of Emergency Contact After Business Hours	
Title	Phone No.

Is the business/property operator identified above responsible for managing the site and implementing conditions of the Trash Area Management Plan?

Yes (If yes, skip below and continue at Section 2) **No** (If no, fill out section below)

Provide the name, title, phone number, and address of the person responsible for managing the site and implementing the conditions of the Trash Area Management Plan.

Name of Responsible Person	
Title	Phone No.
Name of Emergency Contact After Business Hours	
Title	Phone No.

Appendix D to 109-012 – Trash Area Management Plan

SECTION 2. SCHEMATIC FLOW DIAGRAM/BUILDING LAYOUT

This application must include one or more separate sheets of paper with a facility site map indicating the location of the trash area(s). The map(s) should indicate the locations of all storm drains that could receive runoff from the trash area and a short description of the area. If no storm drains are present, the map(s) must include the slope of the site and indicate where runoff from the trash area(s) would flow, (e.g., to ground surface, open drainage ways, neighboring property, streets, etc.).

SECTION 3. SITE MANAGEMENT PRACTICES

Describe how the trash area will be managed to prevent pollutants from leaving the site and entering the environment or the storm drain system. Using the space below or on additional sheets of paper, please include the following:

a) Attach a sample of a form you will use to document routine inspection of the trash area. (Daily inspections are recommended for each work shift.)
b) Describe the nature of the business and types of wastes generated.
c) Describe how employees will be trained to be aware of and follow TAMP requirements.
d) Describe what employees will do if a trash area problem is found (e.g., leaky container, spills on ground, etc.).
e) Describe the procedure for reporting and documenting trash area issues within the company.
f) Describe the procedure the business or responsible party will follow to ensure problems are corrected and do not recur.
g) List the responsible person who must immediately notify the City 24-Hour Dispatch Communications Center at 503-588-6333 in the event a pollutant discharge from the site has or may have occurred, and has entered a storm drain, a public right-of-way, or the environment.

Chapter 109
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Appendix D to 109-012 – Trash Area Management Plan

SECTION 4. SIGNATURE

I agree to follow and fully implement all conditions of this TAMP. I understand if provisions of this TAMP are not followed, or if this TAMP does not prevent pollutants from entering the stormwater system or the environment, the Public Works Director can revoke the TAMP and require construction of an approved cover over the trash area.

Signature of Current Business Owner/Operator

Printed Name

Title

Date

Signature of Property Owner
(if other than the Business Owner/Operator)

Printed Name

Title

Date

TO BE COMPLETED BY CITY STAFF

Date
Received:

Approved

Denied

Other (*see comments below*)

Date: _____ Signature: _____

Name: _____

Title _____

City Comments:

Division 012
Stormwater Source Controls

Appendix E to 109-012 – Stormwater/Wastewater Diversion Valve System

The purpose of installing a diversion valve is to ensure all discharges generated during outdoor activities that contain pollutants are discharged into the public wastewater system for treatment while, at the same time, preventing uncontaminated drainage water from entering the wastewater system. All discharges to the wastewater system must comply with *Salem Revised Code (SRC)* Chapter 74 (Pretreatment Provisions) and all discharged to the stormwater system must comply with SRC Chapter 71 (Stormwater).

A diversion system consists of a point of collection into which the flows are directed; a valve or pump that controls the flow of discharges; a basin or vault to house the equipment; an automatic control system; and a conveyance system to transport the liquid from the source and discharge it into the wastewater or stormwater system.

DIVERSION METHODS

Gravity Valves:

A gravity valve is a mechanical system that opens a multidirectional valve that is installed in a basin at an elevation lower than the stormwater pipe. One position of the valve directs pollutant discharges to the wastewater system, a second position of the valve directs unpolluted stormwater to the stormwater system, and a third position of the valve will prevent discharges into either system and cause the discharge to be collected in the basin or vault.

Depending on the design, the valve could be of bi-direction configuration so that when the valve is open, the polluted discharge is routed to the wastewater system and when the valve is shut, unpolluted stormwater is collected in the basin or vault until it flows by gravity into the stormwater system. A multi-direction valve has two valve openings that direct flows to either the wastewater system or stormwater system. The valve allows flows to enter only one system at a time.

Transfer Pumps:

A transfer pump system pumps discharges to the wastewater system from an elevation lower than the stormwater system. When the pump is off, the collection basin or vault will fill and discharge to the stormwater system. The pump must have a flow control and a check valve on the wastewater discharge side to prevent wastewater from backing up into the collection structure and entering the stormwater system.

SYSTEM OPERATIONS AND CONTROLS

All storm/sanitary diversion systems are required to have automatic controls to reduce the risk of human error. A timed delay control switch or relay is required so that during cleaning operations, all contaminated flows are completely drained into the wastewater system before the discharge can be directed to the stormwater system.

Flow Activation:

For activities involving wash water, a flow-activated system can be used so that when water movement or flow is detected, the diversion system is activated to direct discharges to the wastewater system.

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Stormwater Source Controls

Appendix E to 109-012 – Stormwater/Wastewater Diversion Valve System

Timer Activation:

A timer can be installed so that when the timer is running, the diversion system directs discharges to the wastewater system. The timer is linked to a solenoid-controlled valve that only makes water available for washing or other types of operations when the timer is running. When the timer runs out, the diversion system is shifted back to direct discharges to the stormwater system and water for washing or other operations is shut off.

Rainfall Deactivation

A rainfall deactivation system uses technology similar to that found in the irrigation industry. When a sensor detects rainfall, it signals the diversion system to route discharges to the stormwater system. A rainfall deactivation-based system must have safeguards in place so that operations that could pollute stormwater runoff are not conducted during storm events.