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CITY OF PORTLAND

Source Control Manual



ENVIRONMENTAL SERVICES
CITY OF PORTLAND

ENVIRONMENTAL COMPLIANCE DIVISION

Administrative Rules Issued under the Authority of Portland City Codes 17.34, 17.38, and 17.39 Outlining Source Control Management Practices for Pollution Sources and Discharges to the Storm, Sanitary, and Combined Sewer Systems.



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Introduction

The *Source Control Manual* is an assemblage of foundational policies that govern drainage and discharges resulting from development activities or specific site uses and characteristics. This manual characterizes site uses, activities, and characteristics and identifies structural, operational, and treatment best management practices designed to control specific types of sources of conventional and toxic pollutants in groundwater, stormwater, and wastewater. These source control management practices are activities, prohibitions of uses, procedures, and other structural or managerial practices that eliminate, prevent, or reduce the release or discharge of pollutants and other harmful impacts to groundwater or the sanitary, combined, or storm sewer system.

The *Source Control Manual* is part of BES' Administrative Rules, authorized by Portland City Code (PCC) Chapters 17.34, 17.38, and 17.39. The *Source Control Manual* was adopted by the Director of BES following a public review process and filed with the City Auditor as required by PCC Chapter 1.07.



Purpose

The Federal Water Pollution Control Act of 1948, as amended in 1972, is commonly known as the Clean Water Act (CWA). The CWA addresses water pollution and establishes the foundation for regulating pollutant discharges into waters of the United States. The goal of the *Source Control Manual* is to outline administrative source controls specific to development and post-development activities, drainage, and discharges to the storm, sanitary, and combined sewer systems.

PCC chapters 17.34, 17.38, and 17.39 and associated administrative rules grant the City of Portland (City) authority to require the implementation of pollution and source controls. The *Source Control Manual* provides guidance for selecting source control management practices to prevent or reduce the release of pollutants from urban sources and aid these sources in meeting water quality standards, preserving City infrastructure, and protecting water quality.



Source Control Manual Amendment Process

This *Source Control Manual* will be reviewed and updated as necessary. The review process will include:

- Review of appeals made during the preceding interval;
- Review of community comments and concerns, including those of advisory bodies and professional organizations;
- Adjustment of processes and requirements for consistency with PCC and administrative rules;
- A public comment period to review amendments as identified in PCC Chapter 3.13.

Suggestions for changes and improvements can be made at any time and should be sent to:

BES Environmental Compliance Officer
City of Portland, BES
1120 SW 5th Ave., Room 1000
Portland, OR 97204

As provided by PCC section 3.13.040, the Director of the Bureau of Environmental Services may amend rules, policies, procedures, and forms pertaining to matters within the scope of this *Source Control Manual*. Any changes to the *Source Control Manual* itself require the approval of the Director of BES. When changes are proposed, BES will distribute those proposed changes to interested parties and internal staff for review. The amended manual must be approved by the Director of BES before the amendments are implemented.



Source Control Manual Acronyms

BDS Bureau of Development Services, City of Portland
BES Bureau of Environmental Services, City of Portland
BMP Best Management Practice
BOD Biochemical Oxygen Demand
CBWTP Columbia Boulevard Wastewater Treatment Plant
CWA Clean Water Act
DEQ Oregon Department of Environmental Quality
DO Dissolved Oxygen or Duty Officer
EPA Environmental Protection Agency
GPM Gallons Per Minute
I & I Inflow and infiltration
LF Lineal feet
MGD Million Gallons per Day
MSDS Material Safety Data Sheet
NPDES National Pollution Discharge Elimination System
O & M Operations & Maintenance
ODOT Oregon Department of Transportation
PCC Portland City Code
PM Preventative Maintenance OR Permit/Project Manager
POTW Publicly Owned Treatment Works
PPM Parts Per Million
QA/QC Quality Assurance/Quality Control
ROW Right of Way
SOP Standard Operating Procedure
TSS Total Suspended Solids
WPCL Water Pollution Control Lab
WQF Water Quality Facility



Definitions

NOTE: The following definitions apply to terms used in this manual and are intended to supplement PCC Chapters 17.04, 17.34, 17.38, and 17.39 and associated administrative rules.

Approved Receiving System (Discharge Point): Any system or route of conveyance approved by BES to receive stormwater runoff or other discharges. Receiving systems include, but are not limited to, groundwater; onsite, offsite, or public stormwater, sanitary, or combined sewers; and waters of the state.

Batch Discharge: A controlled discharge of a discrete and contained volume of water, stormwater, or wastewater.

Best Management Practices (BMPs): Operational, maintenance and other practices that prevent or reduce environmental, health or safety impacts. BMPs include structural controls, modification of facility processes, and operating and housekeeping pollution control practices.

Bulk Fuel Terminal: Any area with its primary function dedicated to the storage and distribution of fuel to distributors (such as gas stations).

Bulk Material Transportation Route: Any path routinely used to transport bulk materials onto, off of, or within a site.

Capacity: The flow volume or rate that a specific facility (e.g., basin, pipe, pond, vault, swale, ditch, or drywell.) is designed to safely contain, receive, convey, reduce pollutants from, or infiltrate to meet a specific performance standard.

Catch Basin: A structural facility located just below the ground surface, designed to collect and convey stormwater runoff to an onsite stormwater system or offsite discharge point. A catch basin has a grated lid, a sumped bottom, and outlet pipe (with a downturned 90 degree elbow or snout) to trap coarse sediment and oil. See Appendix G for typical design.

Combined Sewers: A sewer designed to convey both sanitary sewage and stormwater.

Connection: The connection of all sanitary waste and drainage disposal lines from all development on a property to the public sewer and drainage system.

Containerized: The storage of any product, byproduct, or waste that is completely held or included on all sides, within a discrete volume or area.



Containment: A structural control measure or device designed to capture and temporarily store potentially contaminated stormwater or process wastewater not appropriate for discharge to City systems without pollution, flow, or volume reduction BMPs.

Covered Vehicle Parking Areas: Vehicle parking structures used to cover parked vehicles, other than single-level covers such as canopies, overhangs, and carports.

CSO (Combined Sewer Overflow): A discharge of a mixture of sanitary sewage and stormwater at a point in the combination sewer system designed to relieve surcharging flows.

Development: Any human-induced change to improved or unimproved real estate, whether public or private, including but not limited to construction, installation, or expansion of a building or other structure; land division; street construction; drilling; and site alteration such as dredging, grading, paving, parking or storage facilities, excavation, filling, or clearing. Development encompasses both new development and redevelopment.

Discharge Point (Disposal): The connection point or destination for a discharge leaving a site.

Discharge Rate: The rate of flow expressed in cubic feet per second (cfs).

Drainage Basin: A defined area that contributes to sanitary, stormwater or combined sewage flows to an approved connection point.

Drainageway: An open linear depression, whether constructed or natural, that functions for the collection and drainage of surface water. It may be permanently or temporarily inundated.

Driveway: The area that provides vehicular access to a site. A driveway begins at the property line and extends into the site. In parking areas, the driveway does not include vehicular parking, maneuvering, or circulation areas.

Facial Challenge: A challenge to a requirement that is based on an argument that the requirement cannot be applied fairly or reasonably in any situation. By contrast, an as-applied challenge is one based on an argument that a requirement should not be applied to the challenger's particular situation because of factors that, in the challenger's view, distinguish it from similar situations.

Flow: The rate or volume of water moving within a natural or man-made system. Flow is often measured as a ratio, such as cubic feet per second (cfs).

Flow Control: The practice of limiting the release of peak flow rates and volumes from a site. Flow control is intended to protect downstream properties, infrastructure, and natural resources from the increased stormwater runoff peak flow rates and volumes resulting from development.



Groundwater: Subsurface water that occurs in soils and geological formations that are fully saturated. Groundwater fluctuates seasonally and includes perched groundwater.

Groundwater Discharges: A discharge pumped or directed from the ground. Groundwater related discharges include, but are not limited to, subsurface water from site remediation and investigations, well development, Brownfield development, discharges from footing and foundation drains, and subsurface water associated with construction or property management dewatering activities.

Hazardous Substance: Any substance referenced in section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 US Code §9601 et seq.), Section 502(13) of the Clean Water Act, or other substances at concentrations specified in those lists or, if no concentration is specified, at concentrations designated by the Director.

Long-term Dewatering: When groundwater is drained or pumped from a subsurface or surface system for site development. Long-term is defined as dewatering that occurs 1) during the longevity of the constructed subsurface system, 2) for a period greater than three (3) years. Long-term dewatering includes, but is not limited to, groundwater remediation systems and development or construction sites.

Parking Area: The area of a site devoted to the temporary or permanent storage, maneuvering, or circulation of motor vehicles. Parking areas do not include driveways or areas devoted exclusively to non-passenger loading.

Permit: An official document issued by the Director authorizing performance of a specified activity.

Pollutant: An elemental or physical material that can be mobilized or dissolved by water or air and could create a negative impact to human health or the environment.

Pollutants of Concern: Constituents identified by DEQ or BES as having the potential to have a negative impact on the receiving system, including surface waters, groundwater, the wastewater collection system, or the wastewater treatment plant. Pollutants of concern can include suspended solids, metals, nutrients, bacteria and viruses, organics, volatiles, semi-volatiles, floatable debris, and increased temperatures.

Practicable: Available and capable of being done, as determined by the BES Director, after taking into consideration cost, resources, existing technology, and logistics in light of overall project purpose.



Redevelopment: Any development that requires demolition or complete removal of existing structures or impervious surfaces at a site and replacement with new impervious surfaces.

Retrofit: Installation of a new facility or system components to manage stormwater or wastewater flows.

Roadway: Any paved surface used to carry vehicular traffic (cars/trucks, forklifts, farm machinery, or any other large machinery).

Site: Any lot or parcel of land or contiguous combination where development occurs. For utility lines, trenches or other similar work, the site includes only the disturbance area directly related to the linear work activity.

Solid Waste Containers: Compactors, dumpsters, compost bins, grease bins, and garbage cans.

Solid Waste Storage Area: An indoor or outdoor area where solid waste containers are collectively stored. Solid wastes include both food and non-food waste or recycling.

Source Control: A structural or operational measure required by the *Stormwater Management Manual* and the *Source Control Manual* to prevent or control the release or potential release of pollutants generated by certain site characteristics and uses.

Stormwater: Water that originates as precipitation on a particular site, basin, or watershed. Also referred to as runoff.

Stormwater Management: Techniques used to reduce pollutants from, detain, retain, or provide a discharge point for stormwater runoff that best preserves or mimics the natural hydrologic cycle. Stormwater management reduces combined sewer overflows and basement sewer backups, and helps meet the capacity of existing infrastructure.

Stormwater Management Facility: A facility or other technique used to reduce the volume, flow rate or pollutant content of stormwater runoff. Stormwater facilities may reuse, collect, convey, detain, retain, or provide a discharge point for stormwater runoff.

Surcharge: 1) A flow condition when the downstream hydraulic capacity is less than the upstream inflow causing water to back up and rise above the inside crown of a pipe or facility.
2) The greatest measured distance from the water surface to the pipe crown.



Temporary Dewatering: When groundwater or stormwater is temporarily drained or pumped from a subsurface or surface system. 1) For site development, temporarily is defined as the duration of time during the preconstruction or construction site work. 2) For other temporary dewatering activities, temporary is less than three (3) years. Specific activities include, but are not limited to, construction dewatering, dewatering wells, trench systems or sediment control ponds.

Tenant Improvements: Structural upgrades made to the interior or exterior of buildings. Tenant improvements may trigger source control requirements if they take place on sites with specified activities.

Total Suspended Solids (TSS): Total suspended matter that either floats on the surface or is suspended in water or wastewater and that is removable by laboratory filtering in accordance with 40 CFR Table B.

Toxic Substance: Any substance listed in Oregon's water quality standards for toxic pollutants in OAR, Division 340-041-0033; the Clean Water Act effluent guidelines list or toxic pollutants at 40 CFR 401.15; or the toxic chemical release reporting specific toxic chemical listings at 40 CFR 372.65 at concentrations specified in those lists or, if no concentration is specified, at concentrations designated by the Director.

Underground Injection Control (UIC): Defined by DEQ as any system, structure, or activity that is intended to discharge fluids below the ground surface such as sumps, drywells, and soakage trenches.



Chapter 1: Stormwater & Groundwater Source Controls

Section 1.1. Relationship to the Stormwater Management Manual

The *Source Control Manual* and the *Stormwater Management Manual* are complementary manuals that work together to provide developers and design professionals with specific requirements for reducing the impacts of stormwater from new development and redevelopment. Together these manuals make up a BES portfolio of administrative rules authorized by Portland City Code (PCC) Chapter 17.38 that are designed to identify City goals and policies aimed at protecting the environment, City assets, and the public.

The *Stormwater Management Manual* identifies City-wide stormwater infiltration and discharge requirements, flow and volume control requirements, water quality pollution reduction requirements, and requirements that apply in the Columbia South Shore Wellhead Protection Area. Implementing the requirements in the *Stormwater Management Manual* will help protect Portland's water resources and conserve the existing and future conveyance capacity of storm sewers and combined sewers. Stormwater management provides great benefit to human health, fish and wildlife habitat, recreational resources, and drinking water and is critical in terms of protecting Portland's sanitary and stormwater infrastructure.

In 2016, in conjunction with a *Stormwater Management Manual* update, the Director of BES authorized the removal of Chapter 4, Source Controls, from the *Stormwater Management Manual* and permitted subsequent development of this distinct, yet complementary, *Source Control Manual*. The content of the two manuals may overlap while addressing different aspects of stormwater management. Developers and design professionals must reference both manuals when working in the City of Portland to determine the appropriate standards that apply to a project. Before finalizing any project, it is the responsibility of the project designer to contact the City to resolve any conflicts between the documents.



Section 1.2. Overview

This chapter presents storm and sanitary source controls required for site uses and characteristics that generate, or have the potential to generate, specific pollutants of concern.

Goals

Some site characteristics and uses may generate specific pollutants of concern or levels of pollution that are not addressed solely through implementation of the pollution reduction facilities identified in Chapter 2 of the *Stormwater Management Manual*. The site characteristics and uses in this chapter have been identified as potential sources for chronic loadings or acute releases of pollutants such as oil and grease, toxic hydrocarbons, heavy metals, toxic compounds, solvents, abnormal pH levels, nutrients, organics, bacteria, chemicals, and suspended solids. This chapter presents structural source controls for managing these pollutants at their source.

Stormwater discharge benchmarks for pollutants exist in NPDES industrial stormwater general permits issued by the State of Oregon for facilities with industrial activities that are exposed to rainfall and stormwater runoff. The state also has water quality standards listed in Oregon Administrative Rules (OAR) 340 Division 041 for discharges to surface waters. The City used the state standards and industrial stormwater NPDES benchmarks in developing this manual's source controls to better enable stormwater discharges to meet those state criteria.

The specific source control requirements are based on the following goals and objectives:

1. Prevent stormwater pollution by eliminating pathways that may introduce pollutants into stormwater.
2. Protect soil, groundwater, and surface water by capturing acute releases and reducing chronic contamination of the environment.
3. Segregate stormwater and wastewater flows to minimize additions to the sanitary and combined sewer systems.
4. Direct wastewater discharges and areas with the potential for relatively consistent wastewater discharges (such as vehicle washing facilities) to the sanitary or combined sewer system.
5. Direct areas that have the potential for acute releases or accidental spills and are not expected to regularly receive flow or require water use (such as covered fuel islands or covered containment areas) to an approved method of containment or discharge.
6. Safely contain spills onsite, avoiding preventable discharges to sanitary or combined sewers, surface water bodies, groundwater, and underground injection control structures (UICs).



7. 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 follow the special circumstances review process located in [Section 1.17](#). A proposal for operation-based controls must describe the long-term viability of the maintenance program in the [Source Control Special Circumstances Form](#).

Laws

The requirements of this chapter are separate from requirements or conditions required by state or federal regulations or permits and in some areas are or can be more stringent. Some discharges are prohibited from entering the City's storm sewer systems; those prohibitions are listed in PCC Chapter 17.39. See the website at <http://www.portlandonline.com/auditor/index.cfm?c=28866>.

Section Overview and Use

[Section 1.4](#) lists the site uses and characteristics that are subject to the requirements of this chapter and will therefore be subject to Bureau of Environmental Services (BES) Source Control review. [Sections 1.5](#) through [1.15](#) then provide detailed information about the required source controls. [Section 1.5.9](#) and [Section 1.17](#) outline the procedures and requirements for dewatering and Source Control Special Circumstances, respectively. [Section 1.16.3](#) and [Section 1.16.4](#), [SC-102](#) and [SC-103](#), respectively, include an example of the trash and sign requirements.

1. Determine if the project has any of the characteristics or site uses listed in [Section 1.4](#).
2. If yes, go to the applicable section for that characteristic or site use ([Sections 1.5](#) through [1.15](#)) and follow the requirements to design source controls for the project.
3. The site use may require submittal of the [Source Control Special Circumstances Form](#) with the permit application, as discussed in [Section 1.17](#), or submittal of the [Source Control Dewatering Application](#) and any associated applications, as outlined in [Section 1.5](#) and [Section 1.5.9](#).



Section 1.3. Applicability

These source controls apply to all projects with the defined or proposed uses or characteristics listed in [Section 1.4](#), including new development, redevelopment, tenant improvements, violation cases, and existing sites proposing new offsite discharges.

For tenant improvements, only those areas of a structure or activity area being disturbed are required to make the relevant structural changes identified in this chapter. Existing activity areas that will have new activities that are listed in any of this chapter's sections must meet the requirements of the applicable section(s).

For facilities with new offsite discharges, only those proposed areas draining offsite are subject to these regulations.

The requirements of this chapter are in addition to the applicable pollution reduction, flow control, and infiltration/discharge requirements identified in [Chapter 1](#) of the *Stormwater Management Manual*.

Development sites discharging to combined sewers are required to provide pollution reduction and flow control for stormwater in accordance with the standards outlined in [Chapter 1](#) of the *Stormwater Management Manual*, and onsite storm and sanitary flows must remain separated until the offsite connection point.

Dewatering

Commercial building permit applications for new construction, additions, or improvements that will perform below grade excavation or discharge groundwater; or perform work during the winter months (Oct - May) and discharge construction-related stormwater (channelized/collected or pumped) to a City sewer system; or have a long-term discharge, must comply with [Section 1.5](#) and must submit the [Source Control Dewatering Application](#) located in [Appendix A.1](#).

Special Circumstances

Applicants may propose alternatives to the source controls identified in this chapter. In that case, the applicant must complete the [Source Control Special Circumstances Form](#) located in [Appendix A.5](#). Proposal of an alternative source control or alternative design element will require an additional City Source Control Special Circumstances review process and may delay issuance of related building or public works permits.

Chapter 1 sections are grouped into different categories for the purpose of special circumstances reviews:

- A technical review process applies to [Sections 1.6, 1.7, 1.8, 1.10, and 1.13](#).
- An advanced technical and engineering review process applies to [Sections 1.5, 1.9, 1.11, 1.12, and 1.15](#).



If the alternative source control is not approved and the applicant wishes to request administrative review of the decision, the administrative review process is described in [Chapter 2](#).

Note: Developments that cite special circumstances related to *Stormwater Management Manual* requirements are not exempt from the source control requirements of this chapter.



Section 1.4. Requirements

1.4.1. Site Uses and Characteristics That Trigger Source Controls

Projects with the following site uses and characteristics are subject to the requirements of this chapter:

- Site Dewatering and Discharges ([Section 1.5](#));
- Solid Waste Storage Areas, Containers, and Trash Compactors ([Section 1.6](#));
- Material Transfer Areas/Loading Docks ([Section 1.7](#));
- Fuel Dispensing Facilities and Surrounding Traffic Areas ([Section 1.8](#));
- Above-Ground Storage of Liquid Materials, Including Tank Farms ([Section 1.9](#));
- Equipment and/or Vehicle Washing Facilities ([Section 1.10](#));
- Exterior Storage of Bulk Materials ([Section 1.11](#));
- Soil, Stormwater, and Groundwater Management for Development on Land with Suspected or Known Contamination or Adjacent to Contaminated Sites ([Section 1.12](#));
- Covered and Uncovered Vehicle Parking Areas ([Section 1.13](#));
- Water Reclaim and Reuse Systems ([Section 1.15](#)).

Detailed descriptions of these site uses and characteristics are found in each applicable section. Definitions of terms used are provided in the [Definitions](#) section of this manual.

Applicants are required to address all of the site characteristics and uses listed in [Sections 1.5](#) through [1.15](#). For example, if a development includes both a fuel dispensing area and a vehicle washing facility, the source controls in both [Section 1.8](#) and [Section 1.10](#) will apply.

1.4.2. Groundwater Facility Design Requirements

[Section 1.5](#) requires the use of infiltration facilities for long-term groundwater discharges and in some cases construction-related stormwater or temporary groundwater discharges. The facility is required to be sized adequately to account for the anticipated flows. The design, depending on the receiving system, may need to incorporate water quality and flow control. An O&M Form and O&M Plan are required for long-term discharges and must follow the same standards as stormwater facilities, which are outlined in [Chapter 3](#) of the *Stormwater Management Manual*.



1.4.3. Oil/Water Separator Design Requirements

Facility Description

Oil/water separator facilities are used for two main purposes: spill control (where a hazardous spill could contaminate downstream assets) and pollution reduction of runoff prior to discharge. All units use the same principles of separation and coalescence of oil/grease from water, which are based on the different properties of the miscible liquids. The result is distinct layers that can be discharged to separate disposal points. Source controls do not meet flow control or pollution reduction requirements, and additional stormwater management facilities must be used to meet those requirements.

There are various types of generally accepted oil/water separators, which are required for various kinds of applications. Oil/water separators must meet the design criteria in this sub-section.

Coalescing plate separators (CPS) and American Petroleum Institute (API) type separators (see [Section 1.16, SC-101](#)) can provide separation of oil from water by providing additional coalescing surfaces and slower flows, respectively.

API or spill control manholes must be used in the following applications:

- Fueling stations
- Wash racks/pads

CPS units must be used in the following applications:

- Vehicle/heavy equipment repair, sales, or fueling yards,
- Impound yards
- Where high concentrations of oil or grease are expected to discharge to the storm-only sewer system

(See [Sections 1.8, 1.10, and 1.14](#))

There may be other acceptable oil controls (e.g., oil/water separators), and applicants may propose an alternative oil control option. However, proposal of a new oil control will require an additional review process for approval, which may delay issuance of related building permits.

Design Considerations

The estimated peak stormwater flow rate dictates the number and size of separators needed on a site. The percent impervious surface, slope, average rainfall, and rainfall intensity are all factors in calculating the peak flow rate.

Several factors contribute to the capture efficiency of oil/water separators. These include placement, design, maintenance frequency, oil concentration, flow rate, pollutant loading, sedimentation rate, and particle size (sediment and oil).



The sump in a separator captures settleable solids under low flow conditions. Separators are not designed to remove TSS or soluble pollutants. Resuspension and discharge of sediments previously collected in these facilities is a potential problem during large storm events or “first flush” scenarios. In many units, efficiency can be improved by frequent maintenance and implementation of BMPs. See section 1.4.8 of this manual for O&M requirements, including BMPs.

Pollution Reduction Requirements

All types of oil/water separators must be used in combination with vegetated treatment systems (as applicable to the requirements of this chapter and the *Stormwater Management Manual*), such as swales, ponds, or planters to meet pollution reduction and flow control requirements prior to discharge. The type of separator and design requirements are prescribed in this section and [Section 1.14](#) of this manual and in Oregon State Plumbing Specialty Code. Source controls are required in areas designated for high-risk activities (i.e., fuel islands, hazardous materials storage/handling, wash pads, trash compactors, vehicular/equipment maintenance). High-risk areas are required to be hydrologically separated from the surrounding impervious area, and the approved discharge location is most often the sanitary system. Proposals installed per the requirements of this manual must be approved by BES and the BDS plumbing division. Elected controls must be approved by the BDS plumbing division.

Submittal Requirements

- The pollutant loading and spill potential of the area drained.
- The type and size of the receiving facility.
- The outlet location and type.
- The schedule of maintenance.
- Other BMPs the facility has implemented.
- Available stormwater monitoring data and oil/water separator data.

The following additional information may be required, depending on site conditions:

- Manufacturer testing information that supports the requirements in this section.
- Facility dimensions and setbacks from property lines and structures.
- Profile view of facility, including typical cross-section details with dimensions. These details shall match the manufacturer's specifications and details.

All piping associated with the facility, including pipe materials, sizes, slopes, and invert elevations at every bend or connection.



Oil/water separators are required in [Sections 1.10](#) and [1.14](#) of this manual. When an oil/water separator is required, then the following design criteria must be followed.

Areas Protected with a Cover or Located Inside a Structure:

Sanitary dischargers are allowed to use a baffled/ API oil/water separator or a coalescing plate separator that must be designed to achieve 100 parts per million (ppm) non-polar oil and grease in the effluent from the peak flow generated by the activity. Manufacturer testing information that supports the 100-ppm effluent standard at the calculated flow rate must be submitted with the plans. See the typical detail in [Section 1.16, SC-101](#).

- Standard flow from a 5/8-inch hose is estimated to be 10 gallons per minute (gpm).
- For specially designed washing units, check the vendor specifications for maximum flow rates.

Any pumping devices must be installed downstream of the separator to prevent oil emulsification.

Separator details must be shown on the building plans submitted at the time of the building permit application and must match manufacturer specifications and details, including the unit flow rate, effluent water quality, and maximum process flow rate.

Areas Exposed to Rainfall:

In addition to the above requirements, a coalescing oil/water separator (no baffles) in an area exposed to rainfall must be designed with a high-flow bypass to route flows greater than the operational rate around the unit, unless the operational rate exceeds the flow rate generated by a 10-year storm, as calculated with the Rational Method ($Q=C*I*A$, $I=2.86''/\text{hour}$ for 10-year storm). A separator discharging to the storm system must be designed to achieve 10 parts per million (ppm) total oil and grease in the storm effluent in the peak flow generated by the activity. Manufacturer testing information that supports the 10-ppm effluent standard at the calculated flow rate must be submitted with the plans. See the typical detail in [Section 1.16, SC-101](#).

Washing and fueling areas exposed to rainfall will be accepted by approval of a special circumstance only. See [Section 1.17](#) for the special circumstance submittal requirements. The City will charge the owner sanitary volume charges for the stormwater discharged to sanitary or combined sewer systems. The sanitary volume charges will be based on the impervious area and average rainfall minus the onsite stormwater management impervious area charge or by the installation of a discharge meter through the BES Submeter program. The discharge will be charged at sanitary sewer volume rates, per PCC Chapter 17.36.



1.4.4. Spill Control Manhole Design Requirements

Facility Description

Spill control manholes rely on passive mechanisms that take advantage of oil being lighter than water. Oil rises to the surface and can be periodically removed. They consist of a simple underground manhole with a tee outlet designed with dead volume storage to trap small spills. The spill control manhole is not designed for and cannot be used for oil treatment purposes. The spill control manhole is strictly used to capture and store contents from a spill. See [Section 1.16, SC-100](#), for typical spill control manhole details.

Spill control manholes are required for fueling areas, per [Section 1.8](#) of this manual. Spill control manholes will not be given credit for pollution reduction requirements.

Design Requirements

- Spill control manholes (see [Section 1.16, SC-100](#)) are usually 4 feet in diameter and 5 feet deep. The outlet is through a trap 18 inches below the inlet.
- The spill control manhole tee section must extend 18 inches below the outlet elevation, and 60 cubic feet of dead storage volume must be provided below the outlet elevation for storage of oil, grease, and solids. The manhole must be located on private property.
- Any pumping devices shall be installed downstream of the spill control manhole to prevent oil emulsification.
- Engineered calculations are required, using the Rational Method ($Q=C \times I \times A$).

Submittal Requirements

- The pollutant loading and spill potential of the area drained.
- The type and size of the receiving facility.
- The outlet location and type.
- The schedule of maintenance.
- Other BMPs the facility has implemented. See section 1.4.8 of this manual for O&M requirements, including BMPs.

The following additional information may be required, depending on site conditions:

- Facility dimensions and setbacks from property lines and structures.
- Profile view of facility, including typical cross-section details with dimensions. These details shall match manufacturer's specifications and details.



- All piping associated with the facility, including pipe materials, sizes, slopes, and invert elevations at every bend or connection.

1.4.5. Laboratory Testing Requirements

Laboratory reports are required for dewatering discharges, development on or near contaminated sites, or water reclaim and reuse systems, as specifically outlined in [Sections 1.5, 1.12](#) and [1.15](#).

Laboratory analysis reports are required to identify the characteristics and levels of pollutants or contamination in the soils, stormwater, or groundwater.

The analytical data is required to be submitted with the development plans, and is required as part of the BES Source Control review. The data will be used to determine appropriate pretreatment, volume control, and discharge location requirements. The sampling plan must be comprehensive and representative of the media being evaluated. The analytical data must provide information on the contaminants of concern (COCs). Sometimes a current Environmental Site Assessment Phase II contains the needed analytical data or can provide guidance on where additional sampling is needed.

The laboratory analytical results will be assessed and compared against PCC, water quality standards, local limits, or additional or other applicable standards for the media type, or receiving system.

Depending on the receiving system and media, a DEQ or City permit may be required if pollutants or contaminants are found or if a discharge that there is a reasonable potential the discharge may become polluted in the future. This may delay issuance of related building permits because BES Source Control will not sign off on permits that are still being evaluated for pollutants or contaminants in the stormwater, groundwater, or soils.

Laboratory analysis reports must include the following information:

- The method of laboratory testing, the detection level and analytical method for detection, and the depth of any contaminants found in the soils must be identified;
- Minimum test parameters for baseline contaminants must include metals (arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium, silver, and zinc), TPH (total petroleum hydrocarbons), and BTEX (benzene, toluene, ethylbenzene and xylene);
- Test parameters for known contaminants of concern;
- Test parameters may be required to include other contaminants identified through historical data, research, and environmental assessments (as required under [Section 1.12](#));
- The elevation of the seasonal water table and identify the depth of any perched water tables (aquifers) must be identified.



1.4.6. Signage Design Requirements

Informational signage is required for some site uses and activities that have the potential to contaminate stormwater. [Sections 1.7, 1.8, and 1.9](#) require signage. Signage addresses good housekeeping rules and provides emergency response measures in case of an accidental spill.

Any applicable spill response supplies need to be clearly marked and located where the signage is posted and near the high-risk activity area. More than one spill response kit may be necessary to accommodate larger activity areas. The City expects spill response supplies, such as absorbent material and protective clothing, to be available at all potential spill areas. Employees should be familiar with the site's operations and maintenance plan and/or proper spill cleanup procedures.

All signage must conform to the requirements described below. Signage requirements for specific activities are noted in applicable sections, and spill signage examples are provided in [Section 1.16, SC-103](#).

- Signs must be located where they are plainly visible from all activity areas. More than one sign may be needed to accommodate larger activity areas.
- Signs must be water-resistant.
- Signs must provide safety precautions.
- Signs must provide immediate spill response procedures – for example: “Turn the valve located at ...” and “Use absorbent materials.”
- Signs must have emergency contact(s) and telephone number(s) – for example: “Call 911” and “City of Portland (BES) Spill Response Number 503-823-7180.”

1.4.7. Other Requirements

Conformance with this chapter's requirements does not relieve the applicant of other applicable local, state, or federal regulatory or permit requirements. This chapter is intended to complement any additional requirements and is not expected to conflict with, exclude, or replace those requirements. In case of a conflict, the most stringent local, state, or federal regulations generally apply. Any conflict will be resolved by a City review representative in consultation with appropriate agencies. Some of the more common additional requirements that may apply are summarized below.

Stormwater and Wastewater Discharge Permit Requirements

Some facilities may be required to obtain a State of Oregon NPDES industrial stormwater permit, City of Portland discharge permit, or enter into a discharge authorization with the City of Portland before discharging to the City's separated storm sewer system or to waters of the state. Applicants may also be required to obtain an industrial wastewater permit for discharges to the sanitary sewer system.



Facilities subject to these requirements are generally commercial or industrial. Typical discharges include process wastewater, cooling water, groundwater, or other discharges generated by some of the sources in this chapter that drain to a City sewer system (storm, sanitary, or combined).

Industrial Discharge and Development Permit Review Process:

An evaluation will be performed during the building permit review process to determine if an industrial discharge permit is required. If a discharge permit is required, the permit application process will be independent of the building permit review/issuance process, except for the DEQ 1200-C NPDES general construction permit. The 1200-C permit must be issued prior to BES Pollution Prevention Plan Review's approval of the development permit(s). In addition, the BES Pollution Prevention Plan Review plan reviewer of the building permit application(s) may require revisions to accommodate industrial permitting compliance requirements (e.g., sampling points, pretreatment facilities). If industrial permitting is not applicable at the time of building permit submittal, changes in regulations or site activities could trigger industrial permitting requirements in the future.

For questions regarding these requirements, contact BES Pollution Prevention Plan Review at 503-823-7122.

Private Underground Injection Control (UIC)

If discharge to a private UIC (drywells, sumps, and piped soakage trenches) is desired, the federal Safe Drinking Water Act requires a state issued UIC Authorization by Rule or a Water Pollution Control Facility permit for facilities that have subsurface discharges of stormwater or wastewater. These permits must be obtained from DEQ before any subsurface injection system is constructed. Site uses that are classified as high risk under this chapter are generally not allowed to use UICs for stormwater discharge. The use of UICs for stormwater discharge is prohibited for:

- [Section 1.7](#): Material Transfer Areas/Loading Docks
- [Section 1.8](#): Fuel Dispensing Facilities and Surrounding Traffic Areas
- [Section 1.10](#): Equipment and/or Vehicle Washing Facilities

See [Chapter 1, Section 1.3.3](#) of the *Stormwater Management Manual* for information on infiltration prohibitions in certain areas of the City and additional UIC requirements.

Wellhead Protection Program

The storage, use, and transportation of hazardous/toxic materials in designated wellhead areas is regulated under the Water Bureau's *Columbia South Shore Well Field Wellhead Protection Area Reference Manual*. The manual can be found on the Water Bureau's website at <http://www.portlandoregon.gov/water/29880>.



Other Local, State, and Federal Regulations

The requirements presented in this chapter do not exclude or replace the requirements of other applicable codes or regulations, such as the hazardous substances storage requirements of articles 79 and 80 of the Oregon State Fire Code, the spill prevention control and containment (SPCC) regulations of 40 CFR 112 (EPA), the Resource Conservation and Recovery Act (RCRA), or any other applicable local, state, or federal regulations or permit requirements.

1.4.8. Operations & Maintenance Requirements

1.4.8.1 O&M Submittal Requirements

PCC requires the submittal of an O&M Plan for all required source control facilities. The BES must review and approve the plan. Failure to properly operate or maintain a source control facility according to the O&M Plan may result in a civil penalty, as specified in 17.38.045: Enforcement.

The O&M Specifications described in this section can serve as the required O&M Plan. See those sections for more information.

In addition to the O&M Specifications or site-specific O&M Plan, an O&M Form is required for all projects. The applicant must complete and submit a signed form, and the signature must be notarized. The O&M Form and a site plan must be recorded and filed with the county where the property is located. When completed accurately, this form meets the recording requirements in Multnomah, Clackamas, and Washington counties.

O&M Form Instructions

Site Legal Description

- The Site Legal Description shall include all of the tax lots (parcels) managed by the onsite source control facility. The information must be accurate and correctly filled out on the O&M Form prior to submittal to the County for recording.
- To find a property's legal description, visit <http://www.portlandmaps.com> and browse to the property using the exact address. To locate the Site Legal Description at PortlandMaps.com, select the "Assessor" link on the top menu and locate the boxes labeled "Tax Roll" and "Instrument Number" on the page. If the Tax Roll description has "TL" in it, include the Instrument Number where indicated on the O&M Form. This information is intended as guidance; it may not be adequate to be accepted for filing by Multnomah County.

Site Plan

- A site plan showing all source control facility locations in relation to labeled streets, buildings, or other permanent features on the site is a required part of the O&M submittal. Please include schematic utilities (including existing-to-remain and



proposed water, sanitary, and storm sewers), property lines, key site dimensions, and a north arrow. Illustrate the flow in the order which stormwater passes through each facility for each unique drainage basin. Include notes and arrows illustrating sources of runoff, the direction of flow through all facilities, and the location and type of discharge point.

- Provide a site plan sketch on the O&M Form, Page 2, Step 2, or attach a site plan showing each of the items listed above.
- Maintaining the source control facility shown on the site plan is a required condition of building permit approval for the identified property. The property owner is required to operate and maintain the facility in accordance with the O&M Plan on file with the City of Portland. The requirement is binding on all current and future owners of the property. Failure to comply with the O&M Plan can trigger an enforcement action, including penalties.

If the stormwater system design needs to be modified during the course of a project, and prior to Substantial Completion, please contact BES at 503-823-7740 for guidance on how best to modify and update the O&M forms to reflect the system as built. If the O&M Form requires revision, either because the O&M Form on file with the City is inaccurate or because the owner requests and receives City approval to revise it, the owner must record a new O&M Form with the County. Call the Maintenance Inspection Program at (503) 823-5320 for guidance.

Maintenance Inspection Log

A maintenance inspection log is required to be maintained, and available, for inspection at the request of City Maintenance Inspection Program personnel.

Completed O&M Plans must be filed with BES. Submit completed O&M Plans, including the O&M Form, to:

City of Portland, BES
1900 SW Fourth Ave., Suite 5000
Portland, OR 97201

County Recorder's Office Information

Multnomah County Recorder
Room 158
501 SE Hawthorne St.
Portland, OR 97214
<http://www.co.multnomah.or.us/at/services.html>
Phone: 503-988-3034

Clackamas County Recording Division
104 11th St.
Oregon City, OR 97045
<http://www.co.clackamas.or.us/recording/legible.htm>
Phone: 503-655-8661

Washington County Recording Office



155 N. First Ave.
Suite 130, MS-9
Hillsboro, OR 97124
<http://www.co.washington.or.us/deptmts/at/recording/record.htm>
Phone: 503-846-8751



1.4.8.2 Oil Water Separator O&M Specifications

<u>Maintenance Indicator</u>	<u>Corrective Action</u>
<u>Structural Components, including inlets, outlets, pipes, coalescing plates, and vaults.</u>	
<ul style="list-style-type: none"> ➤ <u>Clogged catch basins, inlets, or pipes</u> ➤ <u>Diminished capacity of coalescing plates or vault</u> ➤ <u>Saturated absorbent pads or socks</u> ➤ <u>Missing elbow or T</u> ➤ <u>Cracked pipe or vault</u> 	<ul style="list-style-type: none"> ➤ <u>Remove sediment, oil and debris from catch basins when 1/3 full and from gutters, inlets, outlets, and pipes to maintain at least 50% conveyance capacity at all times.</u> ➤ <u>Vector vault when sediment is 4 inches deep or when oil is 2 inches deep or covers 50% of the coalescing plates.</u> ➤ <u>Close effluent shutoff valve before cleaning. Clean coalescing plates upstream or in the facility. Use low pressure, cool temperature, and biodegradable chemicals (if necessary).</u> ➤ <u>Change absorbent pads or socks when 50% of surface is coated in oil and sediment.</u> ➤ <u>Install elbow or T on outlet.</u> ➤ <u>Repair with grout or City-approved material or replace when cracks are 1-inch wide or more.</u>
<u>Vegetation, including surface cover and nearby plantings.</u>	
<ul style="list-style-type: none"> ➤ <u>Large shrubs and trees</u> 	<ul style="list-style-type: none"> ➤ <u>Prevent large root systems from damaging subsurface structural components.</u>

Annual Maintenance Schedule

Summer: Remove sediment, oil, and debris from the conveyance system. Make any necessary structural repairs.

Fall: Test shut-off valve. Clean vault and/or coalescing plates. Change absorbent pads or socks.

Winter: Monitor.

Spring: Test shut-off valve. Clean vault and/or coalescing plates. Change absorbent pads or socks.



Maintenance Records

All facility operators are required to keep an annual inspection and maintenance log. Record the date, description, and contractor for all structural repairs, landscape maintenance, and facility cleanout activities.

Access

Maintain ingress/egress to design standards.

Pollution Prevention

All sites should implement BMPs to prevent contaminating stormwater. Contact Spill Protection and Citizen Response at (503) 823-7180 for immediate assistance responding to spills. Record the date, time, weather and site conditions if the activities contaminate stormwater.

Vectors (Mosquitoes and Rodents)

Stormwater facilities shall not harbor mosquito larvae or rats that pose a threat to public health or that undermine the facility structure. Monitor standing water for small wiggling sticks perpendicular to the water's surface. Note holes and burrows in and around facilities. Call Multnomah County Vector Control at (503) 988-3464 for immediate assistance to eradicate vectors. Record the date, time, weather and site conditions when vector activity was observed.



1.4.8.3 Spill Control Manhole O&M Specifications

<u>Maintenance Indicator</u>	<u>Corrective Action</u>
<u>Structural Components, including inlets, outlets, pipes, coalescing plates, and vaults.</u>	
<ul style="list-style-type: none"> ➤ <u>Clogged catch basins, inlets, or pipes</u> ➤ <u>Diminished capacity of coalescing plates or vault</u> ➤ <u>Saturated absorbent pads or socks</u> ➤ <u>Missing elbow or T</u> ➤ <u>Cracked pipe or vault</u> 	<ul style="list-style-type: none"> ➤ <u>Remove sediment, oil and debris from catch basins when 1/3 full and from gutters, inlets, outlets, and pipes to maintain at least 50% conveyance capacity at all times.</u> ➤ <u>Vector vault when sediment is 4 inches deep or when oil is 2 inches deep or covers 50% of the coalescing plates.</u> ➤ <u>Close effluent shutoff valve before cleaning. Clean coalescing plates upstream or in the facility. Use low pressure, cool temperature, and biodegradable chemicals (if necessary).</u> ➤ <u>Change absorbent pads or socks when 50% of surface is coated in oil and sediment.</u> ➤ <u>Install elbow or T on outlet.</u> ➤ <u>Repair with grout or City-approved material or replace when cracks are 1-inch wide or more.</u>
<u>Vegetation, including surface cover and nearby plantings.</u>	
<ul style="list-style-type: none"> ➤ <u>Large shrubs and trees</u> 	<ul style="list-style-type: none"> ➤ <u>Prevent large root systems from damaging subsurface structural components.</u>

Annual Maintenance Schedule

Summer: Remove sediment, oil, and debris from the conveyance system. Make any necessary structural repairs.

Fall: Test shut-off valve. Clean vault and/or coalescing plates. Change absorbent pads or socks.

Winter: Monitor.

Spring: Test shut-off valve. Clean vault and/or coalescing plates. Change absorbent pads or socks.



Maintenance Records

All facility operators are required to keep an annual inspection and maintenance log. Record the date, description, and contractor for all structural repairs, landscape maintenance, and facility cleanout activities.

Access

Maintain ingress/egress to design standards.

Pollution Prevention

All sites should implement BMPs to prevent contaminating stormwater. Contact Spill Protection and Citizen Response at (503) 823-7180 for immediate assistance responding to spills. Record the date, time, weather and site conditions if the activities contaminate stormwater.

Vectors (Mosquitoes and Rodents)

Stormwater facilities shall not harbor mosquito larvae or rats that pose a threat to public health or that undermine the facility structure. Monitor standing water for small wiggling sticks perpendicular to the water's surface. Note holes and burrows in and around facilities. Call Multnomah County Vector Control at (503) 988-3464 for immediate assistance to eradicate vectors. Record the date, time, weather and site conditions when vector activity was observed.



Section 1.5. Site Dewatering and Discharges

1.5.1. Overview

Ground water may be pumped and put to beneficial use under statutes regulating the use of waters of the State. For purposes of development, however, ground water is increasingly pumped to waste (discharge of groundwater as a waste). BES has substantial concerns with long-term pumping of groundwater for dewatering and long-term groundwater remediation. Pumping groundwater has the following potential consequences:

- Subsidence (soil settlement that may compromise City infrastructure or adjacent structures).
- Lack of watershed recharge.
- Exacerbating migration of hazardous substances (pollutant/contaminant) onsite or on adjacent properties.
- Exceeding the design capacity of the sewer system. The existing City sewer system was designed to accept only stormwater and/or sanitary flows, depending on the receiving system. It was not designed to accommodate groundwater discharges and therefore has limited capacity.

In addition, BES has been implementing programs to remove stormwater from the combined sewer system in order to reduce combined sewer overflow (CSO) events and treatment costs at the wastewater treatment plant. BES also has established the stormwater hierarchy in this manual to dispose of stormwater onsite in order to ensure the availability of conveyance system capacity for future urban growth and anticipated increased densities and to mimic pre-development hydrologic conditions to meet the goals of the *Portland Watershed Plan*. Pumping groundwater and discharging to a City conveyance system counters the policy decisions that BES has promulgated in the past and foresees for the future.

For these reasons, sites that are proposing or are required to install temporary or long-term groundwater dewatering systems, including dewatering wells, perimeter drains or piping around, under, or near a structure, are required to meet the criteria in this section.

1.5.2. Applicability

This section applies to temporary or long-term dewatering pumping and discharge to waste of ground water (discharge of groundwater as a waste), typically associated with development or remedial action activities. This includes, commercial building permit applications for new construction, additions, or improvements that will perform below grade excavation or discharge groundwater; or perform work during the winter months (Oct - May) and discharge construction-related stormwater (channelized/collected or



pumped) to a City sewer system; or have a long-term discharge. These discharges must comply with this section and must submit the [Source Control Dewatering Application](#) located in [Appendix A.1](#). In addition, there are requirements in this section for structures located in flood areas.

Private discharges to a City UIC system are prohibited. Other alternatives must be selected, which include onsite discharge, sanitary sewer discharge, or hauling the water offsite to an approved discharge location.

If the property is known or suspected to have contamination or is adjacent to a property with known or suspected contamination, refer to [Section 1.12](#) for additional requirements.

Not Applicable

This section does not apply to stormwater-only sheet flow discharges that are covered under a NPDES 1200-C state permit or PCC Title 10 and the City *Erosion Control Manual*.

USING THE SITE DEWATERING & DISCHARGES SECTION:

1. Discharges associated with flood waters are required to design their mechanical systems to meet the requirements as described in [Section 1.5.3](#) below. The other subsections are not applicable to flood waters but are applicable to the temporary or long-term groundwater discharges that may be part of the project design.
2. Discharges that are temporary only (as defined in [Definitions](#)) must comply with [Sections 1.5.4, 1.5.6, 1.5.7](#) and [1.5.8](#).
3. Discharges that are long-term (as defined in [Definitions](#)) must comply with [Sections 1.5.5, 1.5.6, 1.5.7](#), and [1.5.8](#).

1.5.3. Requirements for Structures Designed to Flood

Structures designed to flood during a flood event (also called wet flood proofing) are typically designed to allow flood water to enter the structure (i.e., snorkel system). For this type of design, the sewer ejector sumps must be shut down when water is allowed to accumulate in the structure. Typically, the snorkel (or similar device) is equipped with a sensor that trips the power and turns the sewer ejector sumps off. Once the flood waters subside, the pumps must be manually turned on.

The discharge is subject to the City's discharge authorization program requirements. A batch discharge authorization and discharge approval granted by the City is required prior to discharging this water to a City system.

Signs must be posted next to the sumps' control panel, outlining the discharge procedure for the accumulated water. The sumps must be designed to limit the pumping rate to 50 gallons per minute or another site-specific, approved flow rate.



1.5.4. Discharge Assessment for Temporary Discharges into City Systems

The following standards apply to proposed temporary discharges. Temporary discharges include both stormwater and groundwater as defined in the applicability section above.

1. The applicant for a Batch Discharge must demonstrate that they have reduced the proposed discharge to the greatest extent practical.
2. The City will not accept private discharges to its Underground Injection Control facilities (UICs).
3. The City will not accept discharges that are prohibited by Titles 17.34 and 17.39 do not meet Water Quality Standards or do not meet other rules or limitations.
4. In general, the City will accept temporary discharges into its systems only if the system has sufficient capacity to handle the discharges. In areas where the existing City conveyance system has limited capacity for the proposed temporary dewatering discharge, the City may deny the request or require the discharger to substantially reduce the discharge to a de minimis standard or require additional detention, limited discharge rates, or impose day/time restricted discharge requirements.

1.5.5. Discharge Assessment for Long-Term Discharges

The following standards apply to proposed long-term discharges. Long-term discharges usually only include groundwater discharges.

1. The City will not accept private discharges to its Underground Injection Control facilities (UICs).
2. The City will not accept discharges that are prohibited by Titles 17.34 and 17.39 do not meet Water Quality Standards or do not meet other rules or limitations.
3. In areas where there is limited capacity to accept additional flows and in areas that are required to detain stormwater under the *Stormwater Management Manual*, groundwater discharges will also be held to the same or more stringent detention requirements as those found in parts of the *Stormwater Management Manual*.
4. In general, the City will allow long-term groundwater pumping and discharge to waste only after the applicant has demonstrated the development will fully implement, in priority order described here, measures designed to substantially reduce flows to a de minimis standard. Measures that must be implemented in priority order include:
 - a. The proposed discharger has first reduced, to the greatest extent practical, the rate and volume of required pumping and discharge. This can include building design and construction measures that substantially reduce infiltration of water into buildings, such as dry waterproofing with membrane liners and waterstops at all the points of connections or other technologies that will



substantially dry waterproof without the need for piping or drainage. The reductions must, at a minimum, remove seepage that is greater than a cumulative four (4) inches of water over a continuous 24 hour period. The calculation will be based on the total square footage of each floor the water seepage/weeping will be occurring on.

- b. The proposed discharger must establish management policies designed to allow effective use of structures and properties in the presence of some groundwater infiltration. For instance, BES may disapprove pumping and discharges when the groundwater pumping is to prevent or reduce cosmetic or aesthetic effects of groundwater infiltration, rather than to protect structures or to allow reasonable use of structures.
- c. When pumping and discharge to waste is permitted, to the greatest extent practicable discharge shall be on-site through, for instance, vegetated swales and other infiltration facilities. The responsible party must consult with the DEQ to determine what private discharge methods are appropriate. BES will also coordinate with the DEQ. Failure of DEQ or other regulatory bodies to grant specific permits for such discharges does not automatically justify discharges into City systems. Failure of DEQ or other regulatory bodies to grant permits for such discharges does not automatically constitute adequate justification for discharge into the City system.

(Note: On contaminated sites, to ensure migration of contaminants from the soil do not contaminate groundwater, or to ensure the increased hydrologic loadings do not further exacerbate or migrate groundwater contamination, infiltration facilities may be required to be lined with an impervious liner, which, creates a lined facility. These sites are assessed on a case-by case basis by the DEQ and the BES. Required lining will depend on the level and type of contamination and the contaminants mobility in groundwater and stormwater. In addition, injection facilities may not be allowed due to the possibility of further exacerbating and mobilizing soil and groundwater contaminants. For contaminated sites, please also reference [Section 1.12](#))

- d. If on site discharge is not practical for all the pumped groundwater, the discharger shall, to the greatest extent practical, use a private conveyance system and dispose of the discharge directly to a surface water body. The responsible party must consult with the DEQ to determine if proposed discharge methods are appropriate. BES will also coordinate with the DEQ. Failure of DEQ or other regulatory bodies to grant specific permits for such discharges does not automatically justify discharges into City systems.
5. The City will accept groundwater discharges into its own sewer systems only if the proposed discharge has been reduced to the greatest extent practical and there is adequate capacity in the intended City receiving system to convey the discharges.



Groundwater discharges to a City sanitary sewer or combined sewer system is prohibited if there is a storm only sewer or other alternative available. Capacity will be evaluated by City modeling staff and others. Depending on the receiving system, capacity calculations will consider future development that will need capacity for the 10-year stormwater event or future sanitary domestic and industrial needs. Groundwater discharges will not take precedence over future developments capacity needs for stormwater or domestic/industrial discharges. Capacity is defined in the *Sewer and Drainage Facilities Design Manual* and in the [Definitions](#) section of this manual. If the existing City conveyance system has limited or no available capacity for a long-term dewatering discharge, the City may accept ground water discharges only after sewer or drainage conveyance systems are constructed or extended through the public works permitting process.

1.5.6. Choosing the Proper City System for Discharge

After the applicable requirements in [Sections 1.5.4](#) and/or [1.5.5](#), located directly above, have been met and if discharge to a City system is still needed, the proposed dewatering discharges will be evaluated and assessed by using the regulatory review described below. Based on the regulatory review, BES will determine whether it will accept discharges into its system and which conveyance system may accept the proposed discharge.

Regulatory Review:

Laboratory analysis reports are required to be submitted and are used to identify the characteristics and levels of possible pollutants or contaminants in the soils, stormwater, and groundwater at a site. See [Section 1.4.5](#) for minimum laboratory testing and analyte requirements. The analytical data is required to be submitted with the development plans, and will be used to determine appropriate pretreatment, volume control, and discharge location requirements. The sampling plan must be comprehensive and representative of the flow/discharge being evaluated. The analytical data must provide information on the contaminants of concern (COCs). Sometimes a current Environmental Site Assessment Phase II contains the needed analytical data or can provide guidance on where additional sampling is needed.

The laboratory analytical results will be assessed and compared against PCC, water quality standards, local limits, or additional or other applicable standards for the receiving system. Based on the assessment of the data, the City will determine the best system to accept the discharge and choose the appropriate system below using the criteria specified throughout the Dewatering and Discharges Section.

The discharge will be directed to the City storm only system:

In general, uncontaminated discharges will typically be directed to an available storm only sewer system and after all requirements in the applicable Sections above are met. If discharging to a drainageway as defined in PCC Chapter 17.38, the requirements in that Chapter also apply and must be met before approval of discharge can be granted.



Depending on the receiving system, a City or State permit may be required. If a City or State permit is not issued at this time, a City and/or State permit may be required in the future as discharge characteristics, circumstances or rules change.

The discharge will be directed to the City sanitary or combined system:

Discharge to the City sanitary sewer is allowed only if the discharge is considered to be contaminated and cannot discharge to the storm sewer. If the discharge is not contaminated, it is not allowed to discharge into the sanitary or combined sewer (if alternatives exist) unless a Special Circumstance has been granted through the Source Control Special Circumstances Advanced Technical and Engineering Review process in [Section 1.17](#).

Contaminated discharges or regulated flows into the sanitary sewer system may need to be regulated under a City pretreatment permit. If a pretreatment permit is not required, a batch discharge is required for temporary discharges and a long-term authorization is required for long-term discharges. See [Section 1.5.7](#) for batch discharge and long-term discharge requirements.

A pretreatment permit may be required in the future as discharge characteristics, circumstances or rules change.

1.5.7. Compliance and Submittal Requirements

The sampling point below is required to monitor continued compliance with the City's requirements. The O&M and property deed recording of the Notice of Conditions are also compliance related requirements; in addition, these items along with the forms must be addressed and submitted at the time of building plan review.

1. **Sampling points.** A sampling point for both temporary and long-term discharges is required in order to obtain samples of the discharge and ensure compliance with all applicable regulations and discharge limitations. The sampling point must be in an area that receives the representative flow and is not commingled with other flows. The City reviewer will coordinate the sampling structure location with the applicant. An acceptable sample location includes a sampling manhole, 6-inch clean-out, or sample box/vault.
2. **Submittal Package.** [Section 1.5.9](#) outlines the materials and information that must be submitted as part of the building and/or connection permit package submittal. Some of the requirements include: analytical data, identification of source controls, treatment devices, sampling points, and the discharge location. Rates, volumes, and a discharge timeline must also be submitted in order for the City to assess capacity in the receiving system. All connections to a public system require a BES connection permit and are subject to connection requirements. In addition, the following discharge specific requirements apply.

Additional requirements that apply to specific discharges:



TEMPORARY DISCHARGES

Authorization Forms: When a temporary discharge of groundwater or construction-related stormwater (channelized/collected or pumped) is proposed to a City conveyance system, AND [Section 1.5.4](#) above has been met, a City Batch Discharge Authorization must be issued by the BES Environmental Compliance Division. The Source Control Batch Discharge Application located in [Appendix A.2](#) must be completed and submitted with the building or connection permit application.

The batch authorization procedures are outlined and implemented by the appropriate work group within the BES Environmental Compliance Division.

LONG-TERM DISCHARGES

Authorization Forms: When a long-term discharge is proposed to a City system, AND [Section 1.5.5](#) above has been met, the Source Control Long-Term Dewatering Application located in [Appendix A.3](#) must be completed and submitted with the building or connection permit application. The Source Control Long-Term Dewatering Application procedures are outlined by the appropriate work group within the BES Source Control Division.

O&M Plan: Infiltration is required for long-term discharges. The responsible party must submit a recorded O&M Form and O&M Plan for the groundwater infiltration facility and meet the same requirements as stormwater infiltration facilities, which are outlined in [Chapter 3](#) of the *Stormwater Management Manual*. For infiltration facility design requirements, see [Chapter 2](#) of the *Stormwater Management Manual*.

Recording Notice of Conditions against the property deed: Long-term dewatering dischargers must record a notice of conditions of the discharge against the property. The conditions notice will inform property owners of the groundwater discharge, the City's authorization of the discharge, and provide the City's notification mailing address to inform the City when the characteristics of the discharge change, or when there is a new owner of the property. See [Appendix A.6](#) for a sample Notice of Conditions form. This Notice must be submitted during the plan review process.

1.5.8. Associated Charges

1. **Submeter program and volume fees.** Temporary and long-term groundwater discharges are subject to the submeter program, and procedures identified within that program. Stormwater discharges associated with construction may also incur volume fees. The installation of a charge submeter must be placed on the final discharge (after the final treatment, if applicable) to the City sewer system in order to assess volume charge fees. Depending on the receiving conveyance system, volume fees may not apply. The fees and requirements are located in City Code Chapter 17.36. If the submeter is located inside a building, a remote reader must be placed outside the building on private property, in a location easily accessible to City personnel. The



Source Control Submeter Program Application is required to be submitted at the time of plan review and is located in [Appendix A.4](#).

2. **Sewer Development Charge (SDC).** Payment of the SDC fee at the time of issuance of the building permit, or if no building permit, before the issuance of the BES connection permit for long-term dewatering connections. The approved groundwater discharge will be assessed the receiving systems applicable SDC which will be based on the requirements in PCC Chapter 17.36 and associated rules.



1.5.9. Dewatering Submittal Guide

Before applying for City permits, it is recommended the applicant contact the Department of Environmental Quality (DEQ) Land and Water Quality Divisions before plan submittal and obtain the DEQ's approval or denial of a private system management proposal. Depending on the disposal location for the discharge, the DEQ requires National Pollutant Discharge Elimination System (NPDES) permits and Water Pollution Control Facility (WPCF) permits.

Testing and water analysis are usually required as outlined in Section 1.5 of this manual. Obtaining the results of the analysis is highly recommended prior to submitting building permit applications. Submitting the analytical data prior to permit submittal will help the review team strive to meet the timeline goals of the project.

The City reviews for capacity in the City conveyance system for all discharges. Estimated discharge rates are required to be submitted with the building permit application. It is recommended the estimated discharge rates be submitted in a timely manner to help the review team strive to meet the timeline goals of the project.

When temporary or permanent dewatering is proposed, the minimum submittal requirements are as follows:

1. **Scaled Site Plans** – minimum scale is 1 inch to 10 feet, and at a minimum includes:
 - Property lines
 - North arrow
 - Footprints of structures, if any
 - Surface drainage
 - Location and details of groundwater or stormwater treatment system, if applicable
 - Estimated groundwater flow rate of discharge during all phases of development, if groundwater will be encountered
 - Dewatering plan if collecting/channelizing or impounding stormwater or encountering groundwater
 - DEQ 1200-C general construction NPDES permit number
 - Erosion Control Plan sheets that match the DEQ 1200-C submitted erosion control sheets
 - Proposed discharge location
 - Submeter – must meet submeter specifications
 - Sampling location and structure details



- Utility plans, includes both private and public, existing and proposed storm and sanitary conveyance systems

Also, see Bureau of Development Services Site Plan checklist:
www.portlandoregon.gov/bds.

The site plan information should be located on the erosion/civil sheets of the plan set.

2. The **Source Control Dewatering Application** must be completely filled out and signed. It must be submitted with the appropriate accompanying application(s) (**Source Control Batch Discharge Application**, **Source Control Submeter Program Application**, or **Source Control Long-Term Dewatering Application**) as identified on the Dewatering form.
3. **Dewatering Plan:** If dewatering the site of stormwater or groundwater, the Submittal of the Erosion Control Plan and Dewatering Plan required by the DEQ 1200-C general construction permit is required to accompany the submittal package. If the development is not required to obtain a DEQ 1200-C permit, the submittal of a dewatering plan is required to accompany the submittal package.
4. **Analytical data**, if applicable, for groundwater or stormwater. Analytical data is required if the site is contaminated. Please submit the Environmental Phase II, if available. The analytical data must include the chain-of-custody and detection limits.
5. When using a private onsite management facility for groundwater flows, the **O&M Form and O&M Plan** (**Chapter 3** of the *Stormwater Management Manual*) must be recorded with the appropriate county and submitted. This applies to permanent groundwater dischargers that have vegetated facilities or other permanent dewatering water quality treatment devices.



Section 1.6. Solid Waste Storage Areas, Containers, And Trash Compactors

1.6.1. Applicability

A solid waste storage area is an indoor or outdoor place where solid waste containers are collectively stored. Solid wastes include both food and non-food waste or recycling. Solid waste containers include compactors, dumpsters, compost bins, grease bins, recycling areas, and garbage cans.

Applicable

- All commercial and industrial development with facilities that store solid wastes, both food and non-food.
- Indoor and outdoor solid waste storage areas.
- Multi-family residential sites if a shared trash collection area is proposed.
- Activity areas used to collect and store refuse or recyclable materials, such as can or bottle return stations and debris collection areas.

NEW BUILDINGS (INCLUDING SHELL-ONLY PERMITS) OR ACTIVITY AREA CONSTRUCTION

New constructed buildings and storage areas will house or accept many different activities over the structure's life; therefore, all new construction must meet all of the requirements of this section and cannot follow the tenant improvement track below, unless accepted through the Source Control Special Circumstances review process outlined in [Section 1.17](#).

TENANT IMPROVEMENTS

Because of different tenant activities, solid waste characteristics change; therefore, all tenant improvements must have the facility's solid waste categorized as low or high risk by BES Plan Review, using the following definitions.

- **High-risk** solid wastes are putrescible, toxic, greasy or oily; or attract vectors, such as flies and rodents; or have an odor or high moisture content. Some examples of uses that generate high-risk solid waste include, but are not limited to, restaurant, deli, bakery, grocery store, hotel, hospital, and metal fabrication.
- **Low-risk** solid wastes are non-putrescible (or very low) or nontoxic and free of excessive liquids. Some examples of uses that generate low-risk solid wastes include, but are not limited to, realtor office, dental office, shoe store, or movie store.



If the stored waste generated by the tenant is categorized as high-risk, all of the structural changes outlined in this section apply. This is required even if no plumbing changes are proposed as part of the overall improvements.

If the stored waste generated by the tenant is categorized as low-risk, all of the structural changes outlined in this section apply if the solid waste storage area is new, is being moving from its existing location, or is being changed or altered.

Not Applicable

Single-family homes.

Debris collection areas used only for the storage of wood pallets or cardboard. Facilities that are processing/recycling wood pallets or cardboard, and that is their business, are not exempt and will need to follow the requirements.

A trash area detail is provided in [Section 1.16, SC-102](#). This detail is for reference only. Note that the BES regulation does not require walls and screening.

1.6.2. Requirements

The table below summarizes the design requirements that apply to the areas described above and are required for an approval of solid waste storage and handling activity areas in the City of Portland. The following text provides additional information about each requirement.

ACTIVITY/USE	REQUIREMENTS		
	Cover	Pavement	Drainage
Multi-family (with shared trash areas)	X	X	X*
Commercial	X	X	X
Industrial	X	X	X
Compactors (regardless of use)		X	
Can and bottle return stations	X	X	X
* If gravity service to the sanitary sewer lines cannot be obtained, a special request can be made to direct the drainage from the hydraulically isolated activity area to the development’s stormwater pollution reduction facility. This applies only to multi-family uses. For more information, refer to the Source Control Special Circumstances Review section below.			

COVER

A permanent canopy, roof, or awning must be provided to cover the solid waste storage activity area. It must be constructed to cover the activity area so rainfall cannot come in contact with the waste materials being stored.

The cover must be sized relative to the perimeter of the hydraulically isolated activity area it is to cover.



Runoff must be directed from the cover to a stormwater discharge point that meets all applicable code requirements.

PAVEMENT

The area beneath the cover must be a hydraulically isolated area (no stormwater run-on or liquids running off this area) and paved with asphalt or concrete. The paved area must be sized adequately to cover the activity area intended for refuse storage or the trash compactor(s) and associated equipment.

DRAINAGE

The area beneath the cover must be a hydraulically isolated area, which means the area must be designed to prevent uncontaminated stormwater run-on from entering the sanitary drain or entering the storage area and carrying pollutants away in runoff. This can be accomplished by grading or berms.

Drainage must be provided for the hydraulically isolated area and directed to a sanitary sewer.

Runoff occurring outside the hydraulically isolated area must be directed to a stormwater discharge point that 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.

Non-gravity option: 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 must be provided at the time of building permit application:

- Verification or evidence that gravity service cannot be obtained.
- Details of an electronic sump pump system equipped with a float switch.

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 Bureau of Development Services (BDS) Commercial Plumbing Division will review all sump pump or sewage ejector installations for compliance with the Uniform Plumbing Code and Oregon State Plumbing Specialty Code.

SOURCE CONTROL SPECIAL CIRCUMSTANCES REVIEW

Multi-family developments with shared trash areas may be allowed an alternative to the sanitary 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 and a completed [Source Control Special Circumstances Form](#) located in [Appendix A.5](#) must be submitted. All other requirements previously outlined for multi-family uses apply.



Section 1.7. Material Transfer Areas And Loading Docks

1.7.1. Applicability

Applicable

The requirements in this section apply to all developments proposing the installation of new material transfer areas or structural alterations to existing material transfer areas (e.g., access ramp regrading, leveler installations) with the following characteristics.

- The area is designed (size, width, etc.) to accommodate a truck or trailer being backed up to or into it, and
- The area is expected to be used specifically to receive or distribute materials to and from trucks or trailers.

Two standard types of material transfer areas associated with buildings are:

- Loading/unloading facilities with docks
- Large bay doors without docks

The requirements apply to all material transfer areas, including loading/unloading docks, bay doors, and any other building access point(s).

Not Applicable

The requirements do not apply to areas that are used strictly for mid-sized to small-sized passenger vehicles and that are restricted by lease agreements or other regulatory requirements to storing, transporting, or using materials that are classified as domestic use. Examples of domestic uses include primary educational facilities (elementary, middle, or high school), buildings used for temporary storage (a lease agreement must be provided), and churches. Contact BES' Environmental Compliance Division at 503-823-7122 for help in determining if requirements apply.

1.7.2. Requirements

PAVEMENT

A paved material transfer area of asphalt or concrete must be placed underneath and around the loading and unloading activity area and must meet all applicable building code requirements. This will reduce the potential for soil contamination and associated impacts on groundwater.



DRAINAGE

Loading Docks: The first 3 feet of the paved area, measured from the building or dock face, must 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 must be directed to an approved City sanitary sewer or authorized pretreatment facility. Drainage from the hydraulically isolated area is not allowed to discharge to a stormwater management facility or storm system. Surrounding runoff and drainage from the access ramp must be directed away from the hydraulically isolated area to a stormwater discharge point that meets all applicable requirements of this manual.

Bay Doors and Other Interior Transfer Areas: Bay doors and other interior transfer areas must be designed so that stormwater runoff does not enter the building. This can be accomplished by grading or drains.

Because interior material transfer areas are not expected to accumulate precipitation, installation of floor drains is not required or recommended. It is preferable to handle these areas with a dry mop or absorbent material. If interior floor drains are installed, they must be plumbed to an approved City sanitary sewer or authorized sanitary pretreatment facility.

Non-gravity Drainage Option: 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 must be provided at the time of building permit application:

- Verification or evidence that gravity service cannot be obtained.
- Details of an electronic sump pump system equipped with a float switch.

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 BDS Commercial Plumbing Division will review all sump pump or sewage ejector installations for compliance with the Uniform Plumbing Code and Oregon State Plumbing Specialty Code.

BES may waive the requirement for drainage from the hydraulically isolated area of the loading dock to be directed to an approved City sanitary sewer or authorized sanitary pretreatment facility if it determines there is no gravity sanitary service available and an appropriately sized, underground temporary storage structure (such as a catch basin with no outlet or dead-end sump) is provided. For the exception and alternative to be considered, a completed [Source Control Special Circumstances Form](#), located in [Appendix A.5](#), must be submitted, with information showing that gravity service cannot be obtained.

SHUT-OFF VALVES

Shut-off valves are required to protect the City sewer system or onsite infiltration facilities from spills of chemicals and other constituents that may provide a danger of widespread contamination, system damage, or risk to public health.



A shut-off valve may be required for the sanitary drainage facilities of the material transfer area. BES will make this determination, based on the type of material being transferred and the proposed system receiving the discharge.

Shut-off valves are required for any of the following situations:

- Site activity areas that are exposed to corrosives or oxidizers (such as battery acid) that can harm conveyance system components.
- Substances (such as oil and grease) that do not settle or that remains in one location and are capable of being dissolved in or floating on top of water. These substances can spread rapidly into downstream systems, causing widespread impacts and difficult cleanup situations.
- Substances that are known to infiltrate through soils and contaminate groundwater.

Valves located in material transfer areas are typically left open to facilitate drainage during normal conditions and immediately closed in the event of a spill.

The valves must be closed prior to transfer activities of harmful substances and reopened only after the transfer is complete. The shut-off valves must be located on private property and downstream of the exposed area's collection system.

All valves must be installed and maintained in accordance with manufacturer specifications. For more information about shut-off valves and associated valve boxes, contact the BDS Commercial Plumbing Department at 503-823-7302.

SIGNAGE

Signage must be provided at the storage area and at shut-off valves if hazardous materials or other materials of concern are stored (as determined by BES). Signage must be located so it is plainly visible from all storage activity areas and located next to the shut-off valve. More than one sign may be needed to accommodate large storage areas. Additional information is provided in [Section 1.4.6](#), and signage examples are located in [Section 1.16, SC-103](#).

ADDITIONAL REQUIREMENTS

Wellhead Protection Areas: Transport and handling of hazardous materials in designated wellhead protection areas are subject to additional requirements, as identified in the Water Bureau's *Columbia South Shore Well Field Wellhead Protection Area Reference Manual*.



Section 1.8. Fuel Dispensing Facilities And Surrounding Traffic Areas

1.8.1. Applicability

Applicable

The requirements in this section apply to all development where vehicles, equipment, or tanks are refueled on the premises, whether a large-sized gas station, a single-pump maintenance yard, or a small-sized fuel tank. These requirements also apply to truck loading and off-loading areas located at bulk fuel terminals.

A fuel dispensing facility is defined for this section as the area where fuel is transferred from bulk storage tanks to vehicles, equipment, and/or mobile containers (including fuel islands, above- or below-ground fuel tanks, fuel pumps, and the surrounding pad).

If any improvements are made to the fueling activity area and/or pad, such as regrading or surface replacement, retrofits are required to comply with all fueling activity source controls identified in this chapter.

Not Applicable

Propane and oxygen tanks are exempt from these requirements.

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

- A new canopy installation over an existing fuel pad that is not being upgraded.
- An underground tank replacement for compliance with state regulations.
- Replacement of a fuel pump on an existing fuel pad that is not being upgraded.

Temporary fueling areas associated with construction activities are exempt from these requirements. These activities require implementation of the associated best management practices (BMPs) outlined in the City's *Erosion Control Manual* (in the section titled "Development Activity Control BMPs"). The *Erosion Control Manual* can be found online at <http://www.portlandonline.com/shared/cfm/image.cfm?id=94539>.

1.8.2. Requirements

COVER

The fuel dispensing area must be covered with a permanent canopy, roof, or awning so precipitation cannot come in contact with the fueling activity area. Rainfall must be directed from the cover to a stormwater discharge point that meets all applicable code requirements.



- Covers **10 feet high or less** must have a minimum overhang of 3 feet on each side. The overhang must be measured relative to the perimeter of the hydraulically isolated fueling activity area it is to cover.
- Covers **higher than 10 feet** must have a minimum overhang of 5 feet on each side. The overhang must be measured relative to the perimeter of the hydraulically isolated fueling activity area it is to cover.

The requirement to cover the fuel dispensing area can be appealed if the fuel dispensing area is generally used to service oversized equipment (e.g., cranes) that cannot maneuver under a roof or canopy. A Source Control Special Circumstances Review is required. See [Section 1.17](#) for the Source Control Special Circumstances Review process.

PAVEMENT

A paved fueling pad of asphalt or concrete must be placed under and around the fueling activity area and must meet all applicable building code requirements. Sizing of the paved area must be adequate to cover the activity area, including placement and number of the vehicles or pieces of equipment to be fueled by each pump. Fuel pumps or fuel islands must be located a minimum of 7 feet from the edge of the fueling pad.

DRAINAGE

- The paved area beneath the cover must be hydraulically isolated 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 must be directed to an approved City sanitary sewer or authorized sanitary pretreatment facility.
- A spill control manhole must be installed on the sanitary discharge line of the fueling pad (before the domestic waste line tie-in). The tee section must extend 18 inches below the outlet elevation, and 60 cubic feet of dead storage volume must be provided below the outlet elevation for storage of oil, grease, and solids. The manhole must be located on private property. The spill control manhole is not designed for or to be used for oil treatment purposes. The spill control manhole is strictly used to capture and store contents from a spill.

For typical spill control manhole details, see [Section 1.16, SC-100](#), of this manual. An oil/water separator may be used instead of the spill control manhole. The oil/water separator must be sized appropriately and meet the requirements for oil/water separators in [Section 1.4.3](#) of this manual.

SHUT-OFF VALVES

- A shut-off valve is required on the sanitary discharge line of the fueling pad, downstream of the spill control manhole. Valves installed on sanitary sewer systems must be installed before the domestic waste line tie-in. These valves must be kept closed, and opened only to allow incidental drainage activities that do not pose a



threat or risk to the discharge point system. The valve must be closed immediately after drainage activities are completed.

Shut-off valves must be located on private property and downstream of the exposed area's collection system. All valves must be installed and maintained as per manufacturers' recommendations. For more information about shut-off valves and associated valve boxes, contact the City's Commercial Plumbing Department at 503-823-7302.

- Surrounding runoff must be directed away from the hydraulically isolated fueling pad to a stormwater discharge point that meets all stormwater management requirements of this manual and other applicable code requirements.

Traffic pathways that surround fueling pads are considered high-use/high-risk areas and will require a valve on the storm drainage system. Valves installed on storm drainage systems must be installed downstream of all applicable private stormwater quality facilities to accommodate spill containment. These valves must be left open to facilitate stormwater flows during normal conditions, and immediately closed in the event of a spill.

SIGNAGE

Signage must be provided at the fuel dispensing area and must be plainly visible from all fueling activity areas. Signage must also be provided at the shut-off valve areas directing personnel to turn the valve in the event of a spill. Additional information is provided in [Section 1.4.6](#), and signage examples are located in [Section 1.16, SC-103](#).

ADDITIONAL REQUIREMENTS

- Installation, alteration, or removal of above-ground fuel tanks larger than 55 gallons, and any related equipment, is subject to additional permitting requirements by the Portland Fire Marshall's Office. For technical questions and permitting, call the Fire Marshall's Office permit center at 503-823-3712, or visit the permit center at 1300 SE Gideon, Portland, Oregon 97202.
- If applicable, the requirements in [Section 1.9](#) (Above-Ground Storage of Liquid Materials, Including Tank Farms) must be met in addition to other relevant sections of this manual.
- 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 (EPA). For technical questions and permitting, call DEQ's Northwest Region main office at 503-229-5263 and ask for the Underground Storage Tank Permitting Department.



Section 1.9. Above-Ground Storage Of Liquid Materials, Including Tank Farms

1.9.1. Applicability

Applicable

The requirements in this section apply to all development where there is any exterior permanent or temporary storage of liquid chemicals, food products, waste oils, solvents, process wastewaters, or petroleum products in above-ground containers, in quantities of 50 gallons or more.

Not Applicable

Underground storage tanks or installations that require a water pollution control facility (WPCF) permit are exempt from these requirements, but must comply with DEQ's WPCF permit process.

Quantity thresholds of products that are exempt from these spill containment measures include:

- Janitorial and cleaning supplies of less than 100 pounds net weight or 15 gallons net volume. These supplies must be packaged for consumer use in containers of 5 gallons or less or having a net weight of less than 30 pounds per container.
Cleaners or solvents used for cleaning machinery or motor vehicle and machine parts are NOT exempt.
- Office and stationery supplies of less than 100 pounds net weight. These supplies must be packaged for consumer use in containers of less than 5 gallons in size or 30 pounds in weight.

Double-walled containers are exempt from the 110% or 10% of total volume containment requirements in subsection 1, below. All other requirements apply.

Temporary storage areas associated with construction activities are exempt from these requirements. These activities require implementation of the associated best management practices (BMPs) outlined in the City's *Erosion Control Manual* (in the section titled "Development Activity Control BMPs"). The *Erosion Control Manual* can be found online at <http://www.portlandonline.com/shared/cfm/image.cfm?id=94539>.

1.9.2. Requirements

CONTAINMENT

Liquid materials must 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 receiving system.



- A containment device and/or structure for accidental spills must 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.
- PCC Chapter 17.39 states that water coming in contact with coupling areas is defined as process wastewater. Therefore, there must be a separate containment area for all valves, pumps, and coupling areas, with sub-bermed areas either in front of or inside the main containment areas. These sub-bermed areas must have rain shields and be directed to a City sanitary sewer system for disposal. If no City sanitary sewer is available, drainage must be directed to a temporary holding facility for proper discharge and may require a WPCF permit from DEQ's Water Quality Division.

COVER

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

- Covers **10 feet high or less** must have a minimum overhang of 3 feet on each side. The overhang must be measured relative to the perimeter of the hydraulically isolated activity area.
- Covers **higher than 10 feet** must have a minimum overhang of 5 feet on each side. The overhang must be measured relative to the perimeter of the hydraulically isolated activity area.

PAVEMENT

The storage area must be paved with asphalt or concrete and must meet all applicable building code requirements. The floors must be sealed (e.g. with epoxy) to prevent spills from contaminating the groundwater. The floor materials and sealant must be compatible with the material being stored. Sizing of the paved areas must be adequate to cover the area intended for storage.

DRAINAGE

All paved storage areas must be hydraulically isolated through grading, berms, or drains to prevent uncontaminated stormwater run-on to a storage area.

Covered storage areas: 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 must be directed to an approved City sanitary sewer or authorized pretreatment facility.
- A shut-off valve will be required for the covered storage area if the applicant elects to install drainage facilities to an approved City sanitary sewer.



Uncovered storage areas with containment, such as tank farms (also called bulk fuel terminals):

- Water will accumulate in uncovered storage areas during and after rain. Before the accumulated water is drained and to determine proper discharge location, the water must be collected, inspected for oil sheen and/or a low or high pH. If it is contaminated, depending on the level of contaminants, discharge to the sanitary sewer may be required or treatment may be necessary prior to storm discharge.
- A shut-off valve must be installed on the drainage line for the storage area. This will allow the excess stormwater to be collected and inspected. If free of contaminants, the stormwater can be drained out of the activity area and directed to the storm drainage facilities. If contaminated, the stormwater must be pumped from the containment area and hauled offsite for disposal at a permitted treatment storage and disposal (TSD) facility, discharged to the City sanitary sewer, or discharged to an authorized sanitary pretreatment facility.
- Except when excess stormwater is being discharged, the valve must always be kept closed so any spills within the activity area can be effectively contained.

Short-term and intermittent discharges (less than 6-months in duration) to the sanitary sewer are considered to be batch discharges and require approval and possible pretreatment prior to discharge. Pretreatment requirements are set as part of the discharge approval process and are based on the types and quantities of the material to be discharged.

A discharge evaluation must be performed before discharge and connection to a sanitary sewer. Testing may be required to establish characteristics of the wastewater or contaminated stormwater and to verify that local discharge limits are not exceeded. For batch discharge applications, call BES Environmental Compliance Division at 503-823-5320.

SHUT-OFF VALVES

Shut-off valves are required to protect City sewer systems or onsite infiltration facilities from spill risks from chemicals and other constituents that pose a danger of widespread contamination, system damages, or risk to public health.

Shut-off valves are required for the following situations:

- The stormwater draining from the immediate area around the above-ground storage tank (AST) must be equipped with a valve on the storm drainage system. In the event of a spill, the valve must be closed to adequately isolate the area and contain the spill. Valves installed on storm drainage systems must be installed downstream of all applicable private stormwater quality facilities to accommodate spill containment. These valves must be left open to facilitate stormwater flows during normal conditions, and immediately closed in the event of a spill.
- Valves are required for site or activity areas that are exposed to corrosives or oxidizers (such as, but not limited to, battery acid) that can harm conveyance system components.



- Valves are required for substances (such as, but not limited to, oil and grease) that do not settle or remain in one location and are capable of being dissolved in or floating on water. These substances can spread rapidly into downstream conveyance and discharge systems, causing widespread impacts and difficult cleanup situations.
- Valves are required for substances that are known to react with or leach through the asphalt or pavement and/or infiltrate through soils into the groundwater.

SIGNAGE

Signage must be provided at the liquid storage area and must be plainly visible from all surrounding activity areas. Signage must also be provided at the shut-off valve areas directing personnel to turn the valve in the event of a spill. More information is provided in [Section 1.4.6](#), and signage examples are located in [Section 1.16](#), [SC-103](#).

ADDITIONAL REQUIREMENTS

- Storage of hazardous materials located in designated wellhead protection areas is subject to additional requirements, as identified in the Water Bureau's *Columbia South Shore Well Field Wellhead Protection Area Reference Manual*. The manual can be found on the Water Bureau website at <http://www.portlandoregon.gov/water/29880>.
- Storage of reactive, ignitable, or flammable liquids must 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. Contact the Portland Fire Bureau (503-823-7366) and/or BES Environmental Compliance Division (503-823-7122) for further information and requirements.



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Section 1.10. Equipment And Vehicle Washing Facilities

1.10.1. Applicability

Applicable

The requirements in this section apply to all development with a designated equipment and/or vehicle washing or steam cleaning area. This includes smaller activity areas, such as wheel-washing stations.

Not Applicable

Single-family and duplex residential sites are exempt.

Temporary washing areas associated with construction activities are exempt. These activities require implementation of the associated best management practices (BMPs) outlined in the City's *Erosion Control Manual* (in the section titled "Development Activity Control BMPs). The *Erosion Control Manual* can be found online at <http://www.portlandonline.com/shared/cfm/image.cfm?id=94539>.

1.10.2. Requirements

COVER

The washing area must be covered with a permanent canopy or roof so precipitation cannot come in contact with the washing activity area. Precipitation must be directed from the cover to a stormwater discharge point that meets all applicable code requirements.

- Covers **10 feet high or less** must have a minimum overhang of 3 feet on each side. The overhang must be measured relative to the perimeter of the hydraulically isolated washing activity area it is to cover.
- Covers **higher than 10 feet** must have a minimum overhang of 5 feet on each side. The overhang must be measured relative to the perimeter of the hydraulically isolated washing activity area it is to cover.

Cover Exception: If a washing activity area is generally used to service oversized equipment that cannot maneuver under a roof or canopy (cranes, sail boats, etc.), an exception to the roof or canopy requirement will be granted. A **Source Control Special Circumstances Form**, located in **Appendix A.5**, must be submitted as part of the building permit application to evaluate exception qualifications.

PAVEMENT

A paved wash pad of asphalt or concrete must be placed under and around the washing activity area and must meet all applicable building code requirements. Sizing of the paved



area must adequately cover the activity area, including the placement of the vehicle or piece of equipment to be cleaned.

DRAINAGE

The paved area beneath the cover must 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 must be directed through an oil/water separator and must meet the oil/water separator design requirements in [Section 1.4.3](#). The discharge from the oil/water separator must drain to an approved City sanitary sewer or authorized sanitary pretreatment facility.
- Wash water is not allowed to enter a storm drainage system. Surrounding runoff must be directed away from the hydraulically isolated washing pad to a stormwater discharge point that meets all applicable requirements of this manual.

On-site wash recycling systems must meet the above requirements, unless one of the exceptions below applies:

- Wash recycling systems may be used for oil control instead of using an oil/water separator as long as they can meet effluent discharge limits for the City's sanitary sewer system. A detail of the wash recycling system and vendor specifications identifying effluent efficiencies must be submitted as part of the building plans at the time of the building permit application.
- If an evaporation unit is installed as part of a wash recycling system, an exception to the sanitary sewer connection will be granted. Note: The cover requirement cannot be waived for evaporation units because of the sizing and capacity limitations of the individual units. A [Source Control Special Circumstances Form](#), located in [Appendix A.5](#), must be submitted as part of the building permit application to evaluate exception qualifications.



Section 1.11. Exterior Storage And/Or Processing Of Bulk Materials

1.11.1. Applicability

Applicable

The requirements of this section apply to developments that stockpile materials or store them in outdoor containers, or process the materials outdoors and those materials may erode and/or contribute pollutants to stormwater runoff.

The materials are separated into three categories, based on risk assessments for each material stored: high-risk, low-risk, and exempt. These include, but are not limited to, the general types of materials listed in the table below. Materials not on this list will be evaluated on a case-by-case basis.

Outdoor areas where materials are processed (rather than just stored) are generally considered to be high risk. Outdoor processing, shredding, grinding, and sorting exposes the materials to stormwater and contributes pollutants to stormwater, including, but not limited to, dissolved metals, total metals, total suspended solids, dissolved solids, oil and grease, biochemical oxygen demand (BOD), and bacteria (such as E. coli). Therefore, when any material is processed, shredded, ground, or sorted outdoors and will contribute pollutants to stormwater as described above, the area is considered high risk and must follow the high-risk requirements.

HIGH-RISK MATERIALS	LOW-RISK MATERIALS	EXEMPT MATERIALS
<ul style="list-style-type: none"> ▪ Materials to be recycled, with potential effluent or the potential to contribute pollutants to stormwater runoff ▪ Corrosive materials (e.g., lead-acid batteries) ▪ Scrap or salvage goods with potential effluent ▪ Storage and processing of food items ▪ Chalk/gypsum products ▪ Feedstock/grain 	<ul style="list-style-type: none"> ▪ Materials to be recycled, without potential effluent or the potential to contribute pollutants to stormwater runoff ▪ Scrap or salvage goods ▪ Metal ▪ Sawdust/bark chips ▪ Sand/dirt/soil (including contaminated soil piles) ▪ Material byproducts without potential effluent ▪ Unwashed gravel/rock 	<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 (new, clean, or free of residual product) ▪ Inert products



HIGH-RISK MATERIALS	LOW-RISK MATERIALS	EXEMPT MATERIALS
<ul style="list-style-type: none"> ▪ Material byproducts with potential effluent ▪ Fertilizer ▪ Pesticides ▪ Lime/lye/soda ash ▪ Animal/human wastes 	<ul style="list-style-type: none"> ▪ Compost ▪ Asphalt 	

Not Applicable

Storage and processing areas that are exempt from the requirements of this section have materials that meet any of the following criteria:

- Have no measurable solubility or mobility in water and no hazardous, toxic, or flammable properties.
- Exist in a gaseous form at ambient temperature.
- Contained in a manner that prevents contact with stormwater (excluding pesticides and fertilizers) – e.g., covered inside a building.
- Temporary storage areas associated with construction activities. These activities require implementation of the associated best management practices (BMPs) outlined in the City’s *Erosion Control Manual* (in the section titled “Development Activity Control BMPs”). The *Erosion Control Manual* can be found online at <http://www.portlandonline.com/shared/cfm/image.cfm?id=94539>.

1.11.2. Requirements

COVER

Low-risk materials must be covered and secured with a temporary plastic film or sheeting at a minimum.

High-risk materials must be permanently covered with a canopy or roof to prevent stormwater contact and minimize the quantity of rainfall entering the storage area.

Runoff must be directed from the cover to a stormwater discharge point that meets all applicable code requirements.

- Covers **10 feet high or less** must have a minimum overhang of 3 feet on each side. The overhang must be measured relative to the perimeter of the hydraulically isolated activity area.



- Covers **higher than 10 feet** must have a minimum overhang of 5 feet on each side. The overhang must be measured relative to the perimeter of the hydraulically isolated activity area.

PAVEMENT

Low-risk material storage areas are not required to be paved.

High-risk material storage areas must be paved beneath the structural cover. Sizing of the paved area must adequately cover the activity area intended for storage.

DRAINAGE

Low-risk material storage areas are typically allowed in areas served by standard stormwater management systems. However, all stored erodible materials and stored materials that can contribute contaminants to stormwater runoff must be protected from rainfall.

For these materials, a structural containment barrier must be placed on at least three sides of every stockpile. The barrier must 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 must clearly identify the method of containment on the building plans.

For **high-risk** material storage areas, the paved area beneath the structural cover must 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.

If materials are erodible or can contribute contaminants to stormwater runoff, the containment requirements described for low-risk areas, above, must be followed.

Low and high risk: 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 must be directed to an approved City sanitary sewer or authorized sanitary pretreatment facility. A shut-off valve must be installed if the materials have a potential effluent. BES will make this determination based on the type of material stored.

If the stored material will erode or has a potential effluent to the storm system, a sampling manhole or other suitable stormwater monitoring access point is required to monitor stormwater runoff. The monitoring location must be representative of the facility activities and located downstream of all treatment devices.



SIGNAGE

Signage must be provided at the storage area if hazardous materials or other materials of concern are stored. Signage must be located so it is plainly visible from all storage activity areas. More than one sign may be needed to accommodate large storage areas. More information is provided in [Section 1.4.6](#), and signage examples are located in [Section 1.16, SC-103](#).

ADDITIONAL REQUIREMENTS

Storage of pesticides and fertilizers may need to comply with specific regulations outlined by DEQ. For answers to technical questions, call DEQ's Northwest Region main office at 503-229-5263.

Storage of hazardous materials in designated wellhead protection areas is subject to additional requirements, as identified in the Water Bureau's *Columbia South Shore Well Field Wellhead Protection Area Reference Manual*. The manual can be found on the Water Bureau website at <http://www.portlandoregon.gov/water/29880>.



Section 1.12. Soil, Stormwater, And Groundwater Management For Development On Land With Suspected Or Known Contamination Or Adjacent To Contaminated Sites

1.12.1. Overview

Special handling and management of soils, collected groundwater, and surface drainage may be necessary under federal, state, and local regulations. Sites with known or suspected contamination require a more detailed review process, and this may delay issuance of related building permits.

In addition, areas associated with construction activities are required to implement the best management practices (BMPs) outlined in the City's *Erosion Control Manual* (in the section titled "Development Activity Control BMPs"). The *Erosion Control Manual* can be found online at <http://www.portlandonline.com/shared/cfm/image.cfm?id=94539>.

Applicants are advised to contact the BES Pollution Prevention Plan Review team early in the plan design process (before plan submittal) if they are aware or suspect that the site has contaminants or is adjacent to a contaminated site. It is also recommended the applicant contact the DEQ Land and Water Quality divisions before plan submittal and obtain DEQ approval before applying for City permits.

To research property-specific contaminant information, refer to DEQ's facility profiler database, which can be found at <http://deq12.deq.state.or.us/fp20/>. If records indicate that a No Further Action (NFA) or Record of Decision (ROD) exists for the site, the applicant 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 DEQ's Land Quality Division. All DEQ regulatory divisions or departments referenced in this section can be reached by calling the DEQ's Northwest Region Office at 503-229-5263.

If a site is not included in the DEQ's tracking database, it does not mean that contamination may not be present.

To avoid confusion with the term "water quality pollutant" that is used throughout this manual, this section refers to pollutants as contaminants and/or contamination, unless otherwise specified.

1.12.2. Applicability

The requirements in this section apply to the following:



- Any development project that disturbs property known or suspected to contain contaminants in the soil, stormwater, or groundwater or that may exacerbate contamination by moving the contaminants onsite or offsite. This includes developments that are surrounded by or adjacent to properties suspected or found to have trace contaminants.
- Any project seeking to make a new connection to a public storm system (connections to City UIC facilities are prohibited) from a property that is known or suspected to contain contaminants in the soil or groundwater or performing work that may exacerbate contamination onsite or on an adjacent site. PCC, rules, and policy apply and must be met when a new connection is proposed.
- If contaminants have the potential to become entrained and transported through construction activities or through the post-construction design elements of the development, all requirements in this section and [Section 1.5](#) must be followed. Examples of the activities and design elements include, but are not limited to:
 - Development on land that is at risk, known, or suspected to contain contaminants in the soil or groundwater.
 - Excavation and/or stockpiling of contaminated soils (soil management).
 - Discharge or reuse facilities related to groundwater, foundation or footing drains, interior floor drains in basements or sub-grade structures, construction dewatering, long-term dewatering, and stormwater treatment and conveyance systems. The requirements for groundwater discharges and temporary stormwater discharges are in [Section 1.5](#).
 - Activities in an area of concern, including, but not limited to: City property, Portland Harbor Superfund area, area adjacent to or surrounded by contaminated sites, wildlife habitat area, areas where new development and redevelopment must meet state, federal, or local source control requirements to prevent contamination or recontamination of that specific area of concern.

1.12.3. Review

Contaminants, media, and site conditions are unique to each parcel of land. Sites at risk for contamination must therefore be reviewed on a case-by-case basis.

Stormwater and groundwater discharges from sites suspected of contamination, whether proposed as a temporary construction connection or flow or as a permanent connection to any public system, will require discharge authorization from BES. After reviewing the proposal and a characterization of the contaminants from the site, the BES Environmental Compliance Division may make one or more of the following decisions. For groundwater discharges, also refer to [Section 1.5](#).

- Deny the request to use the City conveyance system.



- Approve the discharge in accordance with PCC, rules, and policy, with possible restrictions such as those described in this section or as necessary, given the nature of the discharge.
- Require the applicant to obtain an NPDES permit from DEQ for the anticipated discharge prior to connection and require a sample point that is representative of the discharge as it enters the City conveyance system.
- Require the applicant to obtain a City-issued permit or authorization and require a sample point that is representative of the discharge as it enters the City conveyance system.
- Require the applicant to become part of BES' Industrial Pretreatment Program.
- Allow an unrestricted connection to the City storm sewer and require a sample point that is representative of the discharge as it enters the City system.

1.12.4. Requirements

The following are the requirements for the different contaminated media that exist on known or potentially contaminated properties. The City will review and assess all data as required below, and depending on the levels of contaminants and the type of the contaminated media, there may be different requirements on how stormwater, groundwater or soil is managed. In some cases, development permits may be held up until the DEQ and/or City approves of the discharge or development.

If a site is not included in the DEQ's tracking database as described in the Applicability section above, it does not mean that contamination may not be present. If a site has a history of commercial or industrial use, a copy of the Phase I and/or Phase II Environmental Site Assessment for the site will be required for review by BES. If a Phase I or II Environmental Site Assessment was not completed, additional sampling is required, as outlined in City policies and this chapter.

SOIL MANAGEMENT

- Stockpiles of contaminated soils must be covered with temporary plastic film or sheeting to prevent stormwater from coming into contact with them. Site controls must be employed that protect drag-out into a City street from the development and, if a clean-up action site (contaminated), from the day-to-day operations.
- Stockpile perimeters must 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.
- Areas under stockpiles of contaminated soils are not required to be paved. However, an impervious layer must be placed beneath the stockpile to protect uncontaminated



areas from potential leachate. Examples of impervious layers include, but are not limited to, asphalt, concrete, or a geomembrane.

LABORATORY ANALYSIS REPORTS

Laboratory testing and associated analysis reports are required on sites that are suspected or have known contamination on site in order to identify the characteristics and levels of contamination in the soils, stormwater, and groundwater. The City in collaboration with the DEQ will coordinate the review of the data. The review will assess the different media pathways and determine the appropriate requirements for stormwater, groundwater, or soil management. The minimum testing requirements and information required is outlined in the beginning of [Section 1.4.5](#).

It is highly recommended that the analytical testing of the applicable media be performed prior to submitting building permit applications and the responsible party contact the DEQ very early in the design phase to provide them the chance to review the proposal. Based upon the review of the data with the DEQ, the determination may be made that the proposal cannot move forward as submitted. Therefore, communication early in the process may help catch design flaws, or perhaps move the proposal along quicker and help meet the project's desired timeline.

STORMWATER AND GROUNDWATER DISCHARGE MANAGEMENT

Stormwater and groundwater management on contaminated sites require additional review by BES Source Control. The requirements are listed below for both media types.

Temporary and Long-Term Dewatering: All temporary and long-term dewatering discharges resulting from groundwater or temporary construction-related stormwater (as defined in [Section 1.5, Applicability](#)) discharges will be evaluated for contaminants before a discharge location can be approved. See [Section 1.5](#) for dewatering requirements. On contaminated sites, dewatering may require additional oversight by the DEQ and associated permits or authorizations by that agency. The City will coordinate with the DEQ on the review process.

Post-Construction Stormwater Management: [Chapter 1](#) of the *Stormwater Management Manual* requires vegetated infiltration facilities as the first Category of stormwater discharge. For contaminated sites, stormwater management options may be limited because of contamination onsite or on an adjacent site.

If the site or adjacent site has groundwater or soil contamination, the City will coordinate with the assigned DEQ project clean-up manager and in the case there is no assigned project clean-up manager, the City will coordinate with the DEQ manager of the Clean-up Division, Water Quality Division, or their designees.

In some cases, the stormwater management facility may be required to be lined with an impervious liner creating a lined facility, unless the contaminants of concerns do not mobilize with stormwater or additional leachability testing and hydrology modeling has been completed to show that infiltration will not mobilize contaminants offsite or to surface



waters. In the absence of good sound analytical data, the City will apply the most conservative decision, and require an imperviously lined facility.

Above-grade facilities are also an option, especially for tree landscaping requirements. Above-grade planters can be designed large enough for trees and other large plantings, or they can be designed small for portability. In some cases, additional contamination delineation must occur and; therefore, permanent facilities cannot be constructed. Thus, portable above-ground planters are an option in those cases.

POST-CONSTRUCTION WATER RECLAIM OR REUSE SYSTEMS

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 trigger environmental compliance regulations, depending on the nature of the contaminants and the extent of the remediation that has been completed.

Irrigation systems may encourage transportation of contaminants, and require authorization from DEQ's Land Quality Division prior to installation.

Authorizations for all reuse systems are typically required from BDS, BES, the Oregon Water Resources Department, and DEQ. On contaminated sites, the City will coordinate with the DEQ prior to approving a groundwater reuse system.

See [Section 1.15](#) for water reclaim and reuse system requirements.



Section 1.13. Covered And Uncovered Vehicle Parking Areas

1.13.1. Applicability

The requirements in this section apply to all development with a covered or uncovered vehicle parking area.

Applicable

- New or redeveloped parking structures.

Not Applicable

- Existing parking structures are not required to retrofit unless the structure is being redeveloped.
- Single-level covers (canopies, overhangs, and carports).
- Single-family and duplex residential sites.

1.13.2. Requirements

DRAINAGE

BELOW-GRADE OR COVERED PARKING FLOOR AREAS

Drainage facilities on the floors of a covered vehicle parking area are not required. If the applicant elects to install drainage facilities, the drainage must be directed to an approved City sanitary sewer, per all applicable PCC and policies.

Entrance trench drains located within the first few feet of the covered entrance to the parking area may discharge to the storm sewer. Trench drains located beyond the first few feet of the entrance or at the bottom of the entrance ramp must discharge to the sanitary sewer. This is evaluated on a case-by-case basis due to different ramp designs. In general, a trench drain located at 10 feet or less on a ramp that slopes and continues beyond 10 feet, can discharge to storm. On a ramp that levels out and no longer slopes beyond the 10 feet, the storm trench drain would need to be within the first 2 feet of the entrance to the ramp.

PARKING AREAS WITH TOP FLOOR OPEN TO RAINFALL

Stormwater runoff from the top floor must be directed to a stormwater discharge point that meets all water quality requirements of this manual and any other applicable code requirements.



ADJACENT, UNCOVERED PORTIONS OF THE SITE

The surrounding uncovered portions of the site must be designed so stormwater does not enter the covered parking areas. This can be accomplished through grading, berms, or drains.



Section 1.14. Motorized Vehicle and Equipment Areas

Pollution Reduction Requirements for Vehicle and Equipment Traffic Areas

Vehicle and equipment traffic areas with the following characteristics must incorporate a coalescing plate oil/water separator into the stormwater management design:

- commercial or industrial parking lots that store wrecked or impounded vehicles
- areas with a high likelihood of total oil and grease loadings – e.g., vehicle repair, vehicle sales, and vehicle fueling services

REQUIREMENTS:

1. The coalescing plate oil/water separator must be installed upstream of the stormwater management facilities, and the sizing must meet [Section 1.4.3](#) requirements. Examples of oil/water separators are located in [Section 1.16](#) (Typical Detail [SC-101](#)).
2. An O&M Form and O&M Plan, per [Section 1.4.8](#) of this manual must be submitted for the oil/water separator.
3. Vehicle and equipment traffic areas that trigger these requirements must be paved with an impervious material; pervious/porous pavements are not allowed. Gasoline can react with asphalt pavement and compromise its integrity. Areas that have a high risk of gasoline spills or exposures must therefore be paved with concrete.
4. If discharging to a public or private UIC, the federal SDWA requires a state-issued UIC authorization by rule or a WPCF permit for facilities that have subsurface discharges of stormwater or wastewater. These authorizations and permits must be obtained from DEQ before any subsurface injection system is constructed. DEQ may classify the vehicle and equipment traffic areas described in this section as high risk and may not allow the use of UICs for stormwater disposal. Discharge of any stormwater mixed with runoff from motor vehicle waste from repair or maintenance activities or fluids from industrial or commercial areas where hazardous substances, toxic materials, or petroleum products are stored, used, or handled is prohibited. Contact DEQ and review [Section 1.3.3](#) of the *Stormwater Management Manual* for information about infiltration prohibitions in certain areas of the City and additional UIC requirements. Private discharges to a City UIC are prohibited.
5. Alternatives to these requirements can be requested by filling out the [Source Control Special Circumstances Form](#) located in [Appendix A.5](#).

ADDITIONAL REQUIREMENTS

The storage, use, and transportation of hazardous materials located in designated wellhead protection areas is subject to additional requirements, as identified in the Water Bureau's



Columbia South Shore Well Field Wellhead Protection Area Reference Manual. The manual can be found on the Water Bureau website at <http://www.portlandoregon.gov/water/29880>.



Section 1.15. Water Reclaim And Reuse Systems

1.15.1. Applicability

This section applies to commercial and industrial properties only.

Water reclamation or reuse systems provide innovative ways to use natural resources and save money. Reclaim and reuse systems that will discharge to the City's sanitary sewer are subject to sanitary sewer user fees.

Utilizing groundwater or stormwater as a resource from sites at risk of contamination may require additional source controls and trigger environmental compliance regulations, depending on the nature of the contaminants and the extent of the remediation that has been completed. See [Section 1.12](#) for information on contaminated sites.

1.15.2. General Requirements

Reuse systems that use stormwater or groundwater for non-potable water use in plumbing fixtures and industrial equipment (e.g., toilets, cooling towers or boilers) are required to meet the following requirements:

- A discharge meter must be installed on the outlet of the reuse system for sewer billing purposes. Discharge meter specifications and requirements can be found in PCC Chapter 17.36 and City policy.
- Industrial equipment bleed-offs or drain valves must have discharges routed to the sanitary waste line of the facility. Discharges must meet local discharge limits, as stated in PCC Chapter 17.34, and administrative rules.
- A permanent monitoring point is required to ensure compliance with local discharge regulations or permits. A sampling manhole, 6-inch clean-out, or flow-through vault must be installed on the discharge line of the subsurface drainage system prior to commingling with any other discharges.
- A permit or authorization for a reuse system is required from BDS and BES. The Water Resources Department (WRD) and DEQ may also require permits or authorizations for the reuse of groundwater; contact them directly for information.

Reusing Surface Drainage (Rainwater Harvesting)

Reuse systems that use only stormwater are not expected to discharge pollutants/contaminants and should not pose a threat to City infrastructure. However, non-potable uses for reclaimed/reuse water in plumbing fixtures and industrial equipment (e.g., toilets, cooling towers or boilers) must meet the requirements listed under [Section 1.15.2](#), above.



Reusing Subsurface Drainage

Discharges may contain contaminants, and analytical data will be required and evaluated for the specific pollutants/contaminants of concern before discharge methods will be approved. Analytical submittal requirements are identified in [Section 1.4.5](#) and must be submitted as part of the permit review process.

Overflows from the reuse system, prior to use, may contain contaminants; therefore, the overflow discharge must also comply with the requirements of [Section 1.15.2](#).

In addition to the [Section 1.15.2](#) requirements, non-potable uses for reclaimed/reuse water in plumbing fixtures and industrial equipment (e.g., toilets, cooling towers or boilers) will require the following:

- If commercial or industrial facilities use groundwater for non-potable uses or irrigation, authorization or a permit is required from the Oregon Water Resources Department (WRD) prior to use. Minimum requirements that warrant a permit for industrial and commercial groundwater wells include, but are not limited to, irrigation of areas that are greater than ½ acre and use more than 5,000 gallons per day of water. Unique groundwater reuse systems (anything other than a standard supply well installation) will be reviewed by WRD on a case-by-case basis to determine permitting requirements (if applicable).

For assistance in obtaining authorization for the use of groundwater, contact WRD's Multnomah County Water Master at 503-722-1410. For more information on water rights and groundwater regulations, see the WRD website at <http://www.oregon.gov/OWRD>.



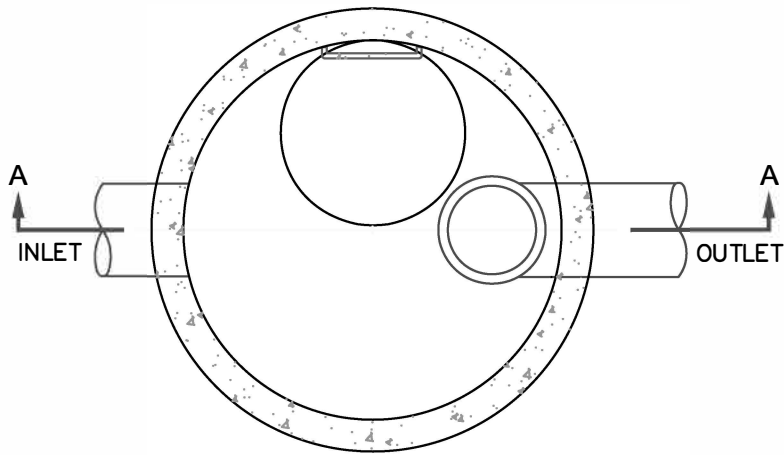
Section 1.16. Source Control Manual Typical Details

1.16.1. Source Control Spill Control Manhole (SC-100)

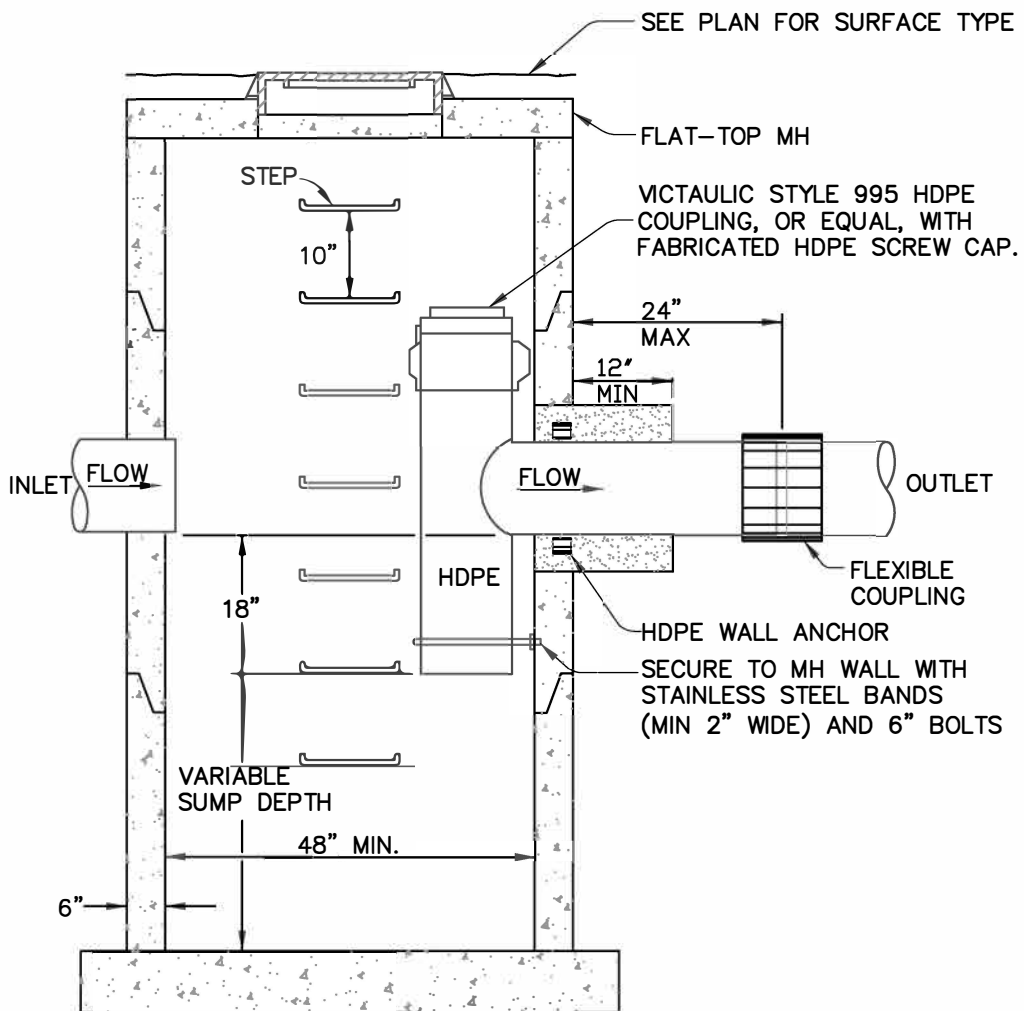
1.16.2. Source Control Oil & Water Separator (SC-101)

1.16.3. Source Control Trash Enclosure (SC-102)

1.16.4. Source Control Spill Control Sign Examples (SC-103)



PLAN



- DRAWING NOT TO SCALE -

SOURCE CONTROL MANUAL SUPPLEMENTAL DETAILS

- Supplemental Details -
Spill Control Manhole
 Source Control

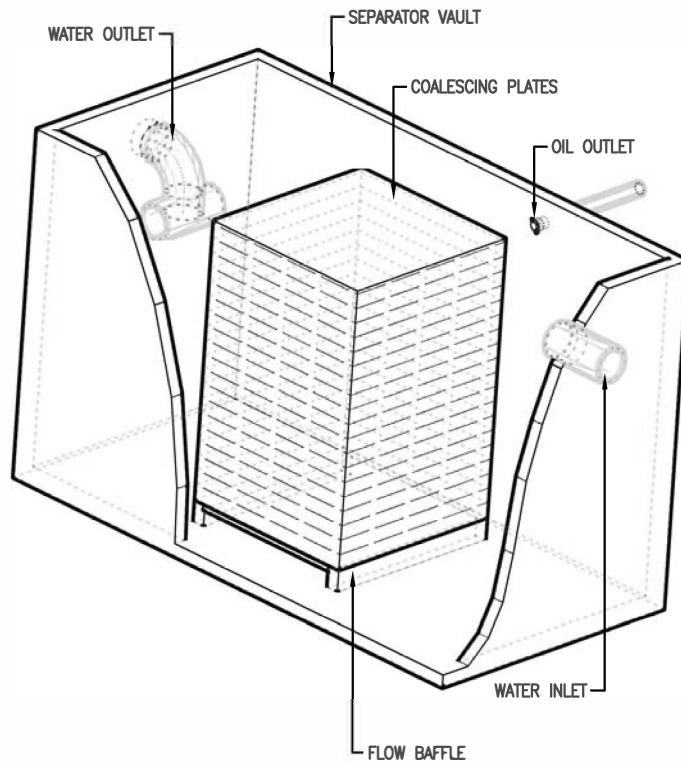
NUMBER

SC-100

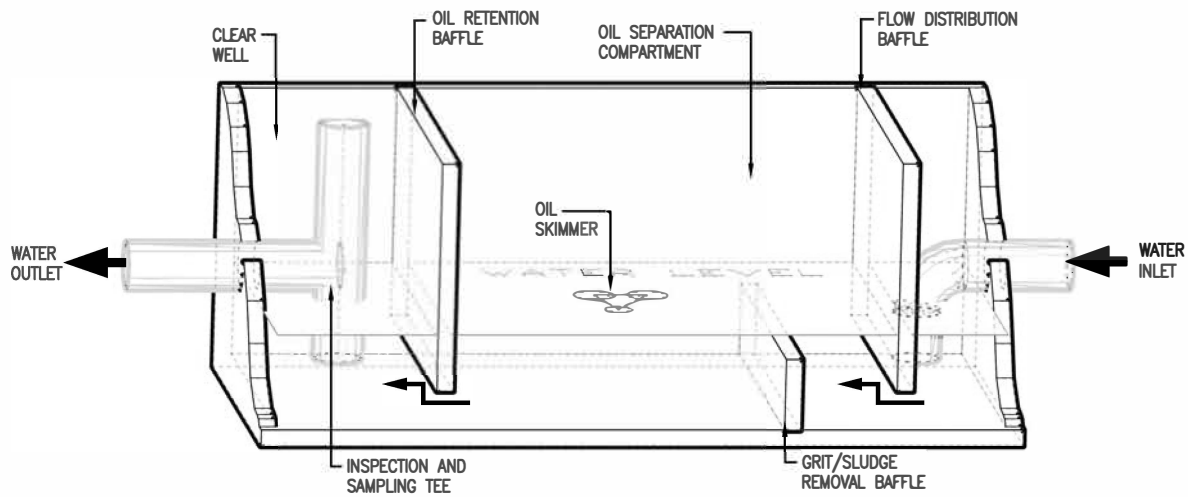


Bureau of Environmental Services





COALESCING PLATE (CP) SEPARATOR



AMERICAN PETROLEUM TYPE (API) SEPARATOR

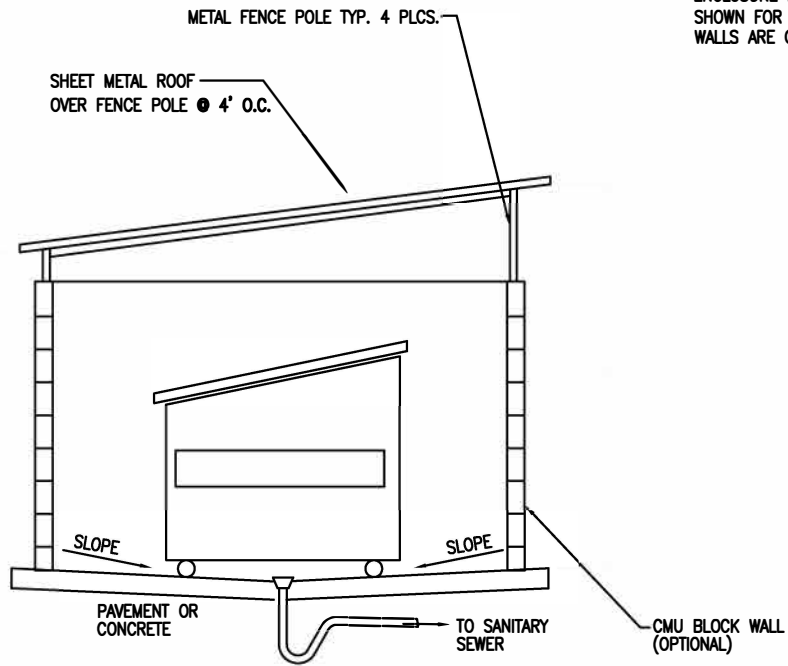
SOURCE CONTROL MANUAL SUPPLEMENTAL DETAILS

- Supplemental Details -
Oil-Water Separators
 Source Control

NUMBER

SC-101





NOTE: ROOFING MATERIALS AND
ENCLOSURE DIMENSIONS ARE
SHOWN FOR REFERENCE ONLY.
WALLS ARE OPTIONAL.

- DRAWING NOT TO SCALE -

SOURCE CONTROL MANUAL SUPPLEMENTAL DETAILS

- Supplemental Details -
Trash Enclosure
Source Control

NUMBER

SC-102



Bureau of Environmental Services



Pollution Control

IN THE EVENT OF A SPILL

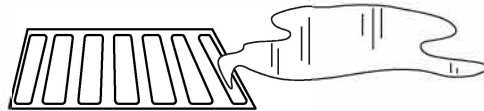
USE Safety Precautions

- Wear protective gear
- Keep vehicles and people out of spill
- Contain materials with the spill kit
 - 1) Seal off drains
 - 2) Berm to contain the spill
 - 3) Clean up with absorbent materials

① Turn off valve located at _____
 (your location, ie: NE corner of parking lot)

② CALL: Supervisor @ 503 XXX-XXXX
 and Environmental Services
 Emergency Spill Response
 @ 503 823-7180

SAMPLE



Pollution Control

IN THE EVENT OF A SPILL

① Turn off valve located at _____
 (your location, ie: NE corner of parking lot)

② CALL: Supervisor @ 503 XXX-XXXX
 and Environmental Services
 Emergency Spill Response
 @ 503 823-7180

USE Safety Precautions

- Wear protective gear
- Keep vehicles and people out of spill
- Contain materials with the spill kit
 - 1) Seal off drains
 - 2) Berm to contain the spill
 - 3) Clean up with absorbent materials

SAMPLE

- DRAWING NOT TO SCALE -

SOURCE CONTROL MANUAL SUPPLEMENTAL DETAILS

- Supplemental Details -

Spill Control Sign Examples

Source Control

NUMBER

SC-103



Bureau of Environmental Services





Section 1.17. Source Control Special Circumstances

1.17.1. Source Control Special Circumstances Process

Special circumstances on a proposed site may make it impracticable to meet the source control requirements to the standards specified in this chapter. BES manages a Source Control Special Circumstances process to review requests to meet source control management requirements in alternative ways.

There are two types of Source Control Special Circumstances reviews: technical review and advanced technical and engineering review. The type of Source Control Special Circumstances review is determined by the criteria and process presented in this section.

Technical Review

If the proposed (alternative) source control meets the intent but not the letter of the requirements, or if some (not all) of the requirements may not be met because of zoning, property constraints, or other regulations, the applicant may request approval through a technical review process. This applies only to the following sections of Chapter 1:

[1.6: Solid Waste Storage Areas, Containers, and Trash Compactors](#)

[1.7: Material Transfer Areas/Loading Docks](#)

[1.8: Fuel Dispensing Facilities and Surrounding Traffic Areas](#)

[1.10: Equipment and/or Vehicle Washing Facilities](#)

[1.13: Covered and Uncovered Vehicle Parking Areas](#)

The applicant must demonstrate that the proposed system meets or exceeds the protection provided by the source control requirements.

The technical reviewer cannot evaluate a request for more than one exception from the same section in Chapter 1 (e.g., a request to eliminate both the sanitary drain and cover in a washing area) or a complete exception from the requirements. Those requests require an advanced technical and engineering review (see below).

Technical staff will evaluate technical reviews under the direction of the Pollution Prevention Manager or designee. The applicant can initiate a technical review by completing the [**Source Control Special Circumstances Form**](#) located in [**Appendix A.5**](#) and submitting site plans and additional materials that support the request. There is no fee for a technical review. Applicants are not allowed to attend the technical review meeting.

Advanced Technical and Engineering Review

If the proposed (alternative) source control meets the intent but not the letter of the requirements or does not qualify for the technical review outlined above, the applicant may



request approval through an advanced technical and engineering review process. This applies only to the following sections of the manual:

[1.5: Site Dewatering and Discharges](#)

[1.9: Above-Ground Storage of Liquid Materials, Including Tank Farms](#)

[1.11: Exterior Storage and Processing of Bulk Materials](#)

[1.12: Soil, Stormwater, and Groundwater Management for Development on Land with Suspected or Known Contamination or Adjacent to Contaminated Sites](#)

[1.14: Pollution Reduction Requirements for Vehicle and Equipment Traffic Areas](#)

[1.15: Water Reclaim and Reuse Systems](#)

The applicant must demonstrate that the proposed system meets or exceeds the source control requirements.

A Source Control Special Circumstances Review Committee of City staff and the project's Bureau of Environmental Services (BES) Environmental Manager will evaluate advanced technical and engineering reviews. The applicant can initiate an advanced technical and engineering review by completing the [Source Control Special Circumstances Form](#) located in [Appendix A.5](#) and submitting the application fee, site plans and additional materials, based on the request. The applicant may elect to attend the advanced technical and engineering review meeting.

1.17.2. Source Control Special Circumstances Submittal

How to Prepare an Application for a Technical Review/Advanced Technical and Engineering Review

A complete application consists of:

- A completed [Source Control Special Circumstances Form](#);
- One complete set of plans;
- Source Control Special Circumstances fee (if applicable);
- Supplemental information specific to the project circumstances.

It is critical that information in the application be clear, concise, accurate, and completely written. Each application must stand on its own merit and will be reviewed based on the specific conditions of the project under consideration.

Form: The form consists of the following sections:

1. **Facility Information.** Provide the facility's name and phone number, location, type of business, and contact person or owner.



2. **Applicant Information.** Provide the applicant's name, address, phone number, and email address and the building permit number.
3. **Review Type and Special Circumstance.** Specify the type of review (as outlined previously) and the request being made, along with the features of the project that make it a special circumstance.
4. **Accompanying Items.** Provide the required accompanying items.

Plans: One complete set of plans (in addition to any plans submitted for permit processing) must accompany the application. Plans should provide sufficient information to detail the areas considered to be a special circumstance, as well as any areas that may be affected by or that may affect those circumstances.

Fee: A fee is required only for advanced technical and engineering review and must be submitted with the application. See the Sewer and Drainage Rates and Charges on the BES website at <http://www.portlandoregon.gov/bes/31019> for the current application fee.

Supplemental information (optional): Supplemental information (engineering analyses, test data, etc.) that will help clarify the request or make it easier to understand is a welcome accompaniment to the submittal.

How to File a Source Control Special Circumstances Application

The complete application must be received by 4:00 pm on Friday to be considered the following Wednesday. Applications will be screened for completeness. Submittal of an inaccurate or incomplete application may cause a delay in considering the request.

Technical review applications can be emailed to the appropriate source control plan reviewer or mailed or delivered to:

Bureau of Environmental Services
Attention: Source Control Special Circumstances
1900 SW 4th Ave, Suite 5000
Portland, OR 97201

Advanced technical and engineering review applications should be mailed or delivered to:

Bureau of Environmental Services
Attention: Source Control Special Circumstances
6543 N Burlington Ave
Portland, OR 97203

For questions about the Source Control Special Circumstances application, call 503-823-7122.

Decisions

Source Control Special Circumstances reviews will be completed within 10 business days of receipt of the submittal. The Source Control Special Circumstances Review Committee will consist of City staff assigned by the project's Environmental Manager. An appointed staff member will review the submittal before calling a committee meeting to present a brief



overview. Decisions are reached by consensus. The decisions will be recorded and mailed to the appellant within 5 business days of the decision.

Note: In the Columbia South Shore Well Field Wellhead Protection Area, some source control measures in Chapter 1 of this manual are protective measures that cross over to the Water Bureau's *Columbia South Shore Well Field Wellhead Protection Area Reference Manual*. Therefore, if an alternative or exception is allowed from the BES source control requirements, other or additional protective measures from the Water Bureau manual may apply. The manual can be found on the Water Bureau website at <http://www.portlandoregon.gov/water/29880>.



Chapter 2: Administrative Reviews & Appeals

A person may request reconsideration of a BES decision through an administrative review as described in this Section. Administrative review and appeal of an enforcement action is also governed by BES Enforcement Program Administrative Rules, ENB-4.15. After the requestor has exhausted all BES administrative review, the requestor may file for an appeal of a decision with the Code Hearings Officer (CHO) per Portland City Code Title 22. A person may only appeal a decision that is subject to administrative review by BES.

A person to whom a notice was addressed will have 20 business days from the date the notice was issued to submit a written request for administrative review of a decision described in the notice. The requestor must provide all information known to the requestor that supports an assertion made in the written request for administrative review. The requestor must provide such information via graphic, written, or recorded communication, or in person at the administrative review meeting. BES will hold an administrative review meeting within 15 business days of receipt of the written request for administrative review unless BES determines in its reasonable discretion that a delay is justified. The requestor may provide detailed information in writing in lieu of attending the administrative review meeting.

A BES decision made under these rules is subject to administrative review except that BES will not grant administrative review for the following:

1. The content of bureau policy or technical parameters such as designs for oil/water separators, storms, coefficients, and other technical criteria; and
2. A Facial Challenge – as that term is defined in these rules – to a requirement in these rules or associated City Code, or to any technical standard.

BES will use authorizing City Code, the provisions of these rules and ENB-4.15, City records, and the testimony and documentation provided by the requestor to make a final determination on the issue that is the subject of the administrative review. BES will issue to the requestor a written final determination within 15 business days of the administrative review meeting unless BES determines that extenuating circumstances justify a reasonably longer period of evaluation. The written final determination will provide information about the process for filing an appeal to the CHO.



Section 2.1 Appeal

A person who exhausted administrative review and is not satisfied with the bureau's final determination may appeal the bureau decision to the Code Hearings Officer under the provisions of PCC Chapter 22.10.



Appendices



Appendix A. Source Control Manual Forms

- A.1. Source Control Dewatering Form
- A.2. Source Control Batch Discharge Application
- A.3. Source Control Long-Term Dewatering Application
- A.4. Source Control Submeter Program Application
- A.5. Source Control Special Circumstances Form
- A.6. Notice of Conditions Form
- A.7. Source Control Operations and Maintenance Form



SOURCE CONTROL DEWATERING FORM

All building permit applications for new construction, additions, or improvement that will perform below-grade excavation or discharge groundwater, or perform ground-disturbing activities during the winter months (Oct-May) must complete and submit this form with the documents requested within this form.

(for official use only)

Date Received: _____

Received By: _____

Approved Date: _____

Approved Receiving System: _____

Date of Request: _____ **Building Permit Application Number:** _____

SITE AND CONTACT INFORMATION

Property Site Address: _____

Name of Responsible Party: _____

Responsible Party Phone *(area code required)*: _____

Responsible Party Mailing Address: _____

City/State/Zip: _____

Name of Contractor: _____

Contractor Phone: _____ Contractor Email Address: _____

DISCHARGE INFORMATION

- | | YES | NO |
|--|--------------------------|--------------------------|
| 1 Will there be temporary dewatering and discharges of groundwater?
(Includes mixed groundwater and stormwater)

If YES , applicant must complete a submeter application and batch discharge application. Submit those applications with this form. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 Will there be permanent dewatering and discharges of groundwater?

If YES , applicant must complete a submeter application and long-term dewatering application, submit a recorded O&M Plan, if applicable, and include with this form. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 Will there be stormwater-only dewatering discharges during construction?
(applicable only if questions 1 and 2 are answered NO)

If YES , fill out the batch discharge application and include it with this form.
If NO , sign this form and submit with building plans. | <input type="checkbox"/> | <input type="checkbox"/> |

Project Discharge Rate: *(If the rate will change based on the depth of the excavation, list those depths with the projected rates.):*

Maximum Discharge Rate (gpm): _____

Duration of Discharge (dates from and to): From _____ To _____

If site conditions change and a discharge offsite is needed, you must call (503) 823-5320 or (503) 823-7180.

SOURCE CONTROL

DEWATERING FORM

Intended Receiving System for the Discharge? (check the following relevant box)

- City Storm City Sanitary City Combined Private Storm
 Private Infiltration Private UIC (Drywell) – City UIC prohibited

Other : _____

If proposing discharge to a private system, please ensure that the Department of Environmental Quality (DEQ) has been notified.

BES may require correspondence from DEQ stating they have been informed of the proposed discharge.

STATEMENT

By signing this form I acknowledge I am the responsible party for the above address and acknowledge that discharges off this site to a City conveyance system are regulated under City Code Chapters 17.39, 17.38, 17.36 and 17.34. By answering no to all three discharge questions, I certify there will be no channelized or pumped stormwater associated with construction activities or groundwater entering a City conveyance system on a permanent or temporary basis. I am also aware that sewer volume charges or system development charges may apply per chapter 17.36 for this discharge. If it is found there is an offsite discharge of either groundwater or stormwater as defined in this statement and the discharge has not been authorized, I am aware that penalties can be assessed per City Code Chapters 17.39 and 17.34. If site conditions change, and a discharge to a City system is needed, I will contact the City by calling 503-823-7122 or 503-823-7180 to obtain authorization to discharge.

Signature: _____

Printed Name: _____

Date Signed: _____



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SOURCE CONTROL

BATCH DISCHARGE APPLICATION

This form is required for requests to discharge temporary groundwater or channelized / impounded or pumped stormwater associated with construction activities into a city conveyance system.

(for official use only)

Batch Discharge Number:

_____ - _____

Fee Required: Yes No

Fee Paid: Yes Check No. _____ No

Date of Request: _____ Building Permit Application Number: _____

REQUEST BY

Contact Name: _____

Company Name: _____

Company Address: _____

City/State/Zip : _____

Telephone: _____ Mobile Phone: _____

Email Address: _____

DISCHARGE GENERATOR

Facility Name: _____

Facility Address: _____

City/State/Zip: _____

Facility Contact: _____ Phone: _____

Description of Wastewater (if applicable, attach analytical data report): _____

Proposed Date(s) of Discharge: _____

Discharge Volume: _____ gallons per day Requested Rate of Discharge: _____ gallons per minute

Building Permit/ City Project Number: _____

City of Portland Project Manager (if applicable) : _____

Proposed Point of Disposal (attach diagram): _____

Signature: _____ Date: _____

Printed Name: _____



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Source Control Manual

SOURCE CONTROL LONG-TERM DEWATERING APPLICATION

This form is required for requests to permanently discharge groundwater into a city conveyance system.

(for official use only)

Permit or Authorization Number:

Fee Required: [] Yes [] No

Fee Paid: [] Yes Check No. [] No

Date of Request: Building Permit Application Number:

REQUEST BY

Contact Name: Company Name: Company Address: City/State/Zip: Telephone: Mobile Phone: Email Address:

DISCHARGE GENERATOR

Facility Name: Facility Address: City/State/Zip: Facility Contact: Phone:

Description of Discharge (if applicable, attach analytical data report):

Discharge Volume: gallons per day Requested Rate of Discharge: gallons per minute

Building Permit/ City Project Number:

City of Portland Project Manager (if applicable):

Proposed Point of Disposal (attach diagram):

Signature: Date:

Printed Name:



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SUBMETER APPLICATION

CONSTRUCTION AND GROUNDWATER DISCHARGE

(for official use only)

Date Application Received (Month/Day/Year) : _____

Receiving Sewer Type: Sanitary/Combined Storm

Meter Type: Odometer Digital

Reviewed By: _____ Date: _____

Date of Request: _____ Building Permit Application Number: _____

PROJECT INFORMATION

Project Name: _____

Project Address: _____ City/State/Zip : _____

Contact Name: _____

Company Address: _____ City/State/Zip: _____

Mailing Address: _____ City/State/Zip: _____

Telephone: _____ Fax: _____

Anticipated Construction Start Date: _____ End Date: _____

Will ongoing dewatering activities occur onsite once construction is complete?

Yes (Complete Section 1 and 2 Below)

No (Complete Section 1 Only)

BILLING INFORMATION

Have you opened a sewer account with Portland Utilities?

Yes Account No: _____

No Contact City (503-823-7856) to set up an account.

Section 1—Contact Information During Construction

Contact Person: _____

Company Name: _____

Billing Address: _____

City/State/Zip: _____

Telephone: _____ Fax: _____

Section 2—Contact Information Post-Construction

Contact Person: _____

Company Name: _____

Billing Address: _____

City/State/Zip: _____

Telephone: _____ Fax: _____

METER INFORMATION

City Code 17.36.050 – ALL meters shall register in cubic feet

Meter Serial Number	Meter Dials	Stationary Zeros	Install Read
No. 1 : _____	1: _____	1: _____	1: _____
No. 2 : _____	2: _____	2: _____	2: _____

Signature: _____ Date: _____

Printed Name: _____



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Source Control Manual

SOURCE CONTROL SPECIAL CIRCUMSTANCES

This form is required if you are requesting alternatives to standard structural source controls, or exceptions per Chapter 1 of the City's Source Control Manual, and other special requests you would like reviewed by the Pollution Prevention Services Group.

Special Circumstances will require an additional review process and may delay issuance of related building permits. If this request cannot be satisfied by the Source Control Special Circumstances review process, the Administrative Review process, as described in Chapter 2 of the Source Control Manual, may be implemented by the applicant.

Date of Request: Building Permit Application Number:

I FACILITY INFORMATION

Facility Name (if applicable): Phone: Facility Address or Location: City/State/Zip: Type of Business/Facility: Facility Contact or Owner:

2 APPLICANT INFORMATION

Applicant Name: Applicant Phone: Applicant Email: Applicant Mailing Address: City/State/Zip: Building Permit No. (if applicable):

3 REVIEW TYPE (select one)

- Technical Review (Chapter 1, sections 1.6, 1.7, 1.8, 1.10, and 1.13)
Advanced Technical and Engineering Review (Chapter 1, sections 1.5, 1.9, 1.11, 1.12, 1.14, and 1.15)

Special Circumstances (check appropriate box and provide a description)

Request for an alternative source control method. Alternative description: Request for review of EXCEPTION qualifications. Exception description: Other. Description:

SAMPLE LONG-TERM DEWATERING
NOTICE OF CONDITIONS

After Recording Return Copy to:

This Space Reserved For Recorder's Use:

PORTLAND BUREAU OF ENVIRONMENTAL SERVICES (BES)
ENVIRONMENTAL COMPLIANCE DIVISION
1900 SW Fourth Avenue, Suite 5000
Portland, OR 97201

NOTICE OF DEVELOPMENT PERMIT APPROVAL CONDITIONS

This notice pertains to the lot or parcel described as [insert legal description] located at [Site Address]. Approval of the development permit for this parcel is based in part on compliance with Portland City Code Title 17.38. Section 17.38.035 requires that long-term dewatering flows obtain authorization and that the authorization establish volume, flow rate, and pollutant load limits for the site's specific long-term discharge. To maintain continued compliance with the authorization, the parcel or lot owners and future parcel/lot owners are required to notify the Bureau of Environmental Services (BES) of ownership changes and any discharge characteristic changes e.g. volume or flow rates and pollutant loadings. The written notification must be sent to BES, Environmental Compliance Division, 6543 N Burlington, Ave, Portland, OR 97203. Parcel or lot owners and future parcel/lot owners are advised to verify the constraints on their property in the applicable land use and building permit decisions and conditions of approval, and with BES land use review staff.

DATED this _____ day of _____, 2016.

Name

Title

State of OREGON

County of Multnomah

This instrument was acknowledged before me on _____, 2016 by

_____.

Notary Public – State of Oregon



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SOURCE CONTROL OPERATIONS & MAINTENANCE FORM

This O&M Form supercedes document number _____

(for official county use only)

Operations & Maintenance Practices

City of Portland code requires the submittal of an Operations and Maintenance (O&M) Form and O&M Plan for all required source control facilities.

Operation and maintenance practices are required in accordance with Portland City Code, Chapter 17.38. Requirements are based on the current version of the *City of Portland Source Control Manual* on the date of permit submittal.

Please attach to this O&M Form the appropriate O&M Specifications from Section 1.4.8 of the *Source Control Manual*.

PROJECT NAME _____

PERMIT INFORMATION

Permit # _____

Permit Submittal Date _____

SITE INFORMATION *(include all parcels)*

R# (6 Digits) _____

Site Address _____

City / State / Zip _____

Preparation Date: _____

OWNER INFORMATION (ALL LEGAL OWNERS)

Name (1) _____

Name (2) _____

Address *(Mailing)* _____

City / State / Zip _____

O&M PREPARER INFORMATION

Name _____

Address *(Mailing)* _____

City / State / Zip _____

Phone *(area code required)* _____

Email _____

Site Legal Description:

Responsible Party for Maintenance *(check one)*

Homeowners Association Property Owner

Property Management Company Tenant

Other (describe) _____
(not Contractor or Consultant)

Contact Information for Responsible Party

Contact Name _____

Contact Organization _____

Phone *(area code required)* _____

Email: _____

(for official BES use only)

SOURCE CONTROL OPERATIONS & MAINTENANCE FORM

SITE PLAN

Provide a site plan sketch in the area provided below, or attach a scaled site plan to this submittal that includes all of the information required as shown in Chapter 1.4.8, Operations & Maintenance, Submittal Requirements, Site Plan.

STEP 1 – COMPLETE THE FOLLOWING TABLE

Source Control Type	Source Control Size (sf)	Drainage is from Roof or Lot?	Impervious Area Treated (sf)	Discharge Point
Totals				

Maintaining the source control device or devices listed above and shown on the following (or attached) site plan is a required condition of building permit approval for the identified property. Property owners are required to operate and maintain the source control device in accordance with the O&M plan on file with the City of Portland. Failure to comply with the O&M plan can trigger an enforcement action, including penalties. The O&M plan may be modified by written consent of current owners and written approval of the Bureau of Environmental Services.

STEP 2 – REQUIRED SITE PLAN

(insert or draw here, or attach separate sheet)

I Have Attached a Site Plan

SOURCE CONTROL OPERATIONS & MAINTENANCE FORM

SIGNATURE AND ACKNOWLEDGEMENT

By signing below, the owner accepts and agrees to the terms and conditions contained in this O&M Form and in any document executed by filer and recorded with it. The owner further acknowledges that this documentation has been prepared on their behalf and that they are responsible for the quality and completeness of the O&M Plan. Any failure to comply with the terms of the O&M Plan may result in enforcement action by BES.

The owner also accepts that the City requires property owners to submit and record, with the County, complete and accurate O&Ms enforceable under City Code Chapter 17.38 and that substantial changes to the O&M require City approval prior to County recording. A revised O&M must state that it supersedes a previous O&M (with cited county document number; See Page 1).

THIS PAGE MUST BE SIGNED IN THE PRESENCE OF A NOTARY.

Property Owner or Authorized Representative (1) Signature

Property Owner or Authorized Representative (2) Signature

NOTARY SIGNATURE AND STAMP

INDIVIDUAL Acknowledgement

This acknowledgement is intended for property owned by individuals or trusts.

STATE of OREGON county of: _____

This instrument was acknowledged
before me on: *(date)* _____

By: *(owner 1)* _____

By: *(owner 2)* _____

Notary Signature _____

My Commission Expires _____

Notary Seal:

OR CORPORATE Acknowledgement

This acknowledgement is intended for corporation, government agencies, school districts, or other formal entities

STATE of OREGON county of: _____

This instrument was acknowledged
before me on: *(date)* _____

By: *(representative)* _____

As: *(Title)* _____

Of: *(Corporation)* _____

Notary Signature _____

My Commission Expires _____

Notary Seal:



The City of Portland complies with all non-discrimination laws including Title VI (Civil Rights) and Title II (ADA). To request a translation, accommodation or additional information, please call 503-823-7740, or use City TTY 503-823-6868, or Oregon Relay Service: 711.