

## APPENDIX D.3 SIMPLIFIED APPROACH SUBMITTAL GUIDE

The Simplified Approach Form is designed to be used for private stormwater management facilities with development proposals having less than 10,000 square feet of overall impervious area. Each individual tax lot is required to manage the stormwater it generates on the same lot to the maximum extent practicable and within accordance of the *Stormwater Management Manual*. Site conditions may require additional geotechnical or geological evaluation, which may require the Bureau of Environmental Services (BES) to prohibit the use of this simplified approach and require the applicant to utilize the Presumptive or Performance approach.

If total impervious area for the submitted development proposal is equal to or greater than 10,000 square feet or includes public or private street improvements, the Presumptive or Performance approach must be used, and a Stormwater Management Report will be required. For more information, refer to the current *Stormwater Management Manual* Sections 2.2.2 and 2.2.3, respectively.

If the proposal is unable to meet the requirements of the *Stormwater Management Manual*, the applicant must submit a Special Circumstances request; refer to the *Stormwater Management Manual* Section 1.7 for more information.

### Submittal Form Instructions

1. **Project, Designer, and Applicant Information** – If the site information, calculations, and final design data are provided by the owner or another third party, the owner must sign this acknowledging and accepting responsibility for the information provided on the form.
2. **Site Information**
  - a. Soil classification information can be found at the following website:  
<http://www.portlandmaps.com>

To locate the data pertaining to the development site, select the <Environmental> information for the property, then select the <Stormwater Management> tab and locate the soil classification data.

- b. Required Infiltration Testing Instructions - See **Appendix F.2 for Simplified Approach Infiltration Test** procedures.
  - If the test pit infiltration rate is greater than, or equal to, 2 inches per hour, then onsite infiltration is required. Applicants may choose either a surface infiltration facility with overflow to a drywell or soakage trench or a surface infiltration facility with an overflow to an approved discharge point. If the tested infiltration rate is below 2 inches per hour, then a flow-through or

partial infiltration facility is required with an overflow to an approved discharge point.

Projects that infiltrate roof runoff with private soakage trenches or drywells are not required to provide pollution reduction prior to infiltration. This exemption does not apply to projects that discharge stormwater offsite. Single-family residential (up to three units) roofs and footing drains are excluded from underground injection control (UIC) registration. Refer to Section 1.4 for specific pollution reduction requirements for UICs.

- Waiving testing requirements: The applicant must provide additional documentation to support any requests for waiving of the required infiltration test. BES may waive the requirement for sites where infiltration is not feasible due to onsite constraints (excessive slope, landslide hazard, etc.) or in areas where infiltration rates are demonstrably adequate as substantiated through previous testing.

### 3. Facility Sizing Worksheet Instructions

All facilities sized with the [Simplified Approach Form](#) are presumed to comply with the City's pollution and flow control requirements.

Infiltration and discharge requirements are site specific and approved with the use of the Simplified Approach Form.

- 1) Enter square footage (sf) of total impervious area being developed or redeveloped in **BOX 1**.
- 2) Calculate Impervious Area Reduction Techniques:
  - a. Complete Tree Credit Worksheet and enter total in 1(a)
  - b. Enter sf for impervious area reduction techniques in 2(a) or 2(b)
  - c. Enter sum of the impervious area reduction techniques into **BOX 2**.
  - d. Subtract BOX 2 from BOX 1, enter the sum for Total Impervious Area Requiring Stormwater Management, **BOX 3**.
- 3) Calculate Surface Facilities Proposed:
  - a. Select appropriate stormwater management facilities based on infiltration rate.
  - b. Enter the square footage of Impervious Area managed that will flow into each facility type.
  - c. Multiply the Impervious Area by the Sizing Factor, and enter the resulting sum in the Facility Surface Area to the right. The area for each facility type must match the areas shown on any site plans submitted with the project, and with the areas of facilities shown on the Operations &

Maintenance Form for Private Stormwater Management Facilities (See [Appendix D.6](#)).

- d. Check whether the planter, swale, or basins are flow-through facilities, and indicate how overflow will be directed for final discharge location (check all that apply on the project).
  - e. Enter the sum of the Total Surface Facility Impervious Area Managed into **BOX 4**.
- 4) Calculate Subsurface Facilities Proposed:
- a. Select appropriate subsurface facility depending on source of inflow from either an otherwise unmanaged Impervious Area, or as an overflow from a Surface Facility.
  - b. Enter the square footage of Impervious Area that will flow into each facility type. If source of inflow is as an overflow from a Surface Facility, enter a value of zero.
  - c. Enter the diameter, depth, length, and width as required to describe the size of the facility.
  - d. Enter sum of the Total Subsurface Facility Impervious Area in **BOX 5**.
- 5) Calculate Total Stormwater Facility Impervious Area:
- a. Add BOX 4 and BOX 5 to sum the total Impervious Area in **BOX 6**.
- 6) Calculate Total Unmanaged Impervious Area.
- a. Subtract BOX 6 from BOX 3 and enter sum in **BOX 7**.
  - b. BOX 7 should be zero.
  - c. If there is a positive number in BOX 7, there is new or redeveloped impervious area not being managed. Indicate that area not being managed on attached site plans and provide a narrative for why the area cannot be managed.

## Documentation Requirements

When the Simplified Approach is used to design stormwater facilities (see [Section 2.2](#)), the minimum submittal requirements are as follows.

1. **Scaled Site Plans** must include the following information (at a minimum):
  - Minimum scale of 1 inch to 10 feet
  - North arrow
  - Elevations and topography
  - Property lines
  - Lot area and setbacks
  - Footprints of structures to the roofline
  - Easements and driveways
  - Wells and septic systems
  - Utility lines
  - Width of right-of-way and curb height
  - Impervious areas
  - Type, location, and size of stormwater facility
  - Existing and proposed surface drainage
  - Proposed discharge point

See the Bureau of Development Services site plan checklist at [www.portlandonline.com/bds](http://www.portlandonline.com/bds)

2. **Cross-Section and Details** of the proposed facility must be included with the plan set. Where sites are topographically varied, it may be imperative to show elevations of inlets, outlets, and discharge points on the cross-section to show how gravity drainage will be met.
3. The **Simplified Approach Form** must be completely filled out. The form includes tables for the required infiltration testing and instructions on how to perform an open pit test. See [Appendix F.2](#) for further details about infiltration testing and options. The form also provides the simplified sizing for the facilities.
4. The **Operations and Maintenance Form** (see [Appendix D.6](#)) must be recorded with the appropriate county and submitted to the Bureau of Environmental Services (BES) Document Services at 1900 SW 4<sup>th</sup> Ave., Portland, OR 97201.
5. The **O&M Specification** (see [Section 3.3](#)) must be recorded with the O&M Form and submitted to BES.
6. **Landscape plans** are required (see [Section 2.3.2 and Appendix D.1](#)).