



# SIMPLIFIED APPROACH FORM

## PROJECT INFORMATION WORKSHEET

### PROJECT INFORMATION

Permit Number: \_\_\_\_\_ Phone: \_\_\_\_\_

Name: \_\_\_\_\_ Email: \_\_\_\_\_

Site Address/R Number(s): \_\_\_\_\_

Development Description: \_\_\_\_\_

Total New or Redeveloped Impervious Area: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### SITE CHARACTERISTICS

S.1. Do slopes exceed 20% anywhere within the project area?  Yes  No

S.2. Are there springs, seeps, or a high groundwater table anywhere within the project area?  Yes  No

**If answer to S.1 or S.2 is yes**, than lined or partial infiltration facility with an overflow to an approvable discharge point is required.

S.3. Is there a required geotechnical report?  Yes  No

S.4. Required infiltration testing complete?  Yes  No

If using prior test results at same site, provide Land Use case/permit number: \_\_\_\_\_

### Required Infiltration Testing

Date of Test: \_\_\_\_\_

Depth of Excavation (ft): \_\_\_\_\_

	TEST 1	TEST 2	TEST 3
A. Time (of day)			
B. Duration (hours) (1 hour minimum)			
C. Initial Water Depth (inches)			
D. Final Water Depth (inches)			
E. Infiltration Rate* (inches/hour)			

\*Infiltration Rate = Initial Depth (in) – Final Depth (in) / Duration of Test (hours)

### SIMPLIFIED INFILTRATION TESTING PROCEDURE

The Simplified Approach provides a method that a nonprofessional can use for design of simple stormwater systems on small projects. A geotechnical report or different infiltration test may be required at the discretion of the assigned BES plan reviewer. See Section 2.3.6 for infiltration testing requirements.

#### Test instructions:

1. Conduct test in and/or near location of proposed infiltration facility.
2. Excavate a test hole a minimum of 16" in depth, or to the bottom of the proposed infiltration system, whichever is greater. If a hard pan layer is encountered that prevents further excavation, or if noticeable moisture/water is encountered in the soil, stop and measure this depth and note it on the SIM form. If further excavation is not possible, conduct the test at this depth.
3. Fill the hole with water to a depth of at least 6" from the bottom of the hole. Record the amount of time required for the water to draw down to the bottom of the test pit. Check the water level at regular intervals to ensure accurate data collection.
4. Repeat the process two more times for a total of 3 rounds of testing. Conduct the tests in succession to accurately portray the soil's ability to infiltrate at different levels of saturation. The 3rd test provides the best measure of the infiltration rate at saturated conditions.
5. Record infiltration test data in the table at left and certify the results.

### Test pit location (site plan sketch)

Key information to include: 1) Site or parcel, 2) Adjacent road(s) or cross street(s), 3) Test pit location with dimensions



### Certification of Infiltration Results (required)

I acknowledge the accuracy of these infiltration testing results.

Signature of tester (required)

Print Name

Date

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## PROPOSED STORMWATER FACILITIES

### Proposed Stormwater Facilities

Please note: Each individual taxlot is required to manage the stormwater runoff it generates from new construction or redevelopment on the same lot to the maximum extent feasible. The following table includes accepted simplified stormwater management facilities as described in Chapter 2 of the 2016 Stormwater Management Manual. Copies of the manual are available online at [www.portlandoregon.gov/bes/swmm](http://www.portlandoregon.gov/bes/swmm).

	STORMWATER FACILITY TYPE	TOTAL AREA MANAGED BY FACILITY TYPE (SF)	FACILITY SIZING FORMULA	FACILITY SIZE (SF)
<b>IMPERVIOUS AREA REDUCTION TECHNIQUE</b>	Tree Credit		Complete Tree Credit Worksheet and attach	n/a
	Ecoroof		1:1 ratio only	n/a
	Pervious Pavement		1:1 ratio only	n/a
<b>SURFACE INFILTRATION OR FILTRATION</b>	Downspout Extension		Area x 0.10	
	Rain Garden		Area x 0.10	
	Basin		Area x 0.09	
	Swale		Area x 0.09	
	Planter		Area x 0.06	
	Filter Strip (paved areas only)		Area x 0.20	
<b>SUBSURFACE DISPOSAL UIC</b>	Soakage Trench		Westside soakage trench no longer an option under the simplified approach. Only a single soakage trench sizing possible. <i>See below for sizing information.</i>	
	Drywell		Enter drywell type and quantity for facility size. <i>See below for sizing information.</i>	
<b>TOTAL IMPERVIOUS AREA MANAGED</b>			Total Impervious Area Managed must match Total New or Redeveloped Impervious Area. Site plans must identify stormwater facility location, drainage areas, overflows and escape routes.	

Subsurface facilities can receive overflow from impervious area reduction techniques or surface infiltration/filtration facilities or can be used independently to manage runoff. If stormwater is generated from anything other than roof area, stormwater facilities are subject to UIC requirements (see Chapter 1 for UIC requirements).

### Sizing Charts:

DRYWELL TYPE	AREA MANAGED
2'x2' mini drywell	Up to 500 sf
28"x5'	Up to 1,000 sf
4'x5'	Up to 3,000 sf
4'x10'	Up to 6,000 sf

SOAKAGE TRENCH	LENGTH PER 1,000 SF OF IA	WIDTH	DEPTH	SIZING
Soakage Trench	20'	2.5'	1.5'	AREA x 0.05