



Seattle
Public
Utilities



King County

Infiltration Test & Certification

This test will help determine, 1) If soil conditions are suitable for a rain garden and 2) The size of garden.
If you have questions while executing this test, contact your contractor with questions.

Site Address: _____
(Use one certification form per rain garden.)

On-Site location (For multiple rain gardens, i.e., SW or NE): _____

Test Preparation:

- **Call before you dig!** Dial 811 for free utility pipeline location.
- Dig a hole **24 inches deep** and **at least 10 inches across**.
- Add a stake with a ruler attached and set the bottom of the ruler at the bottom of the hole. Duct tape works to attach the ruler.
- **Fill and drain the hole 2 times** to saturate the soil.
- **Each fill should be performed within 2 hours of the previous fill.**
You are mimicking the saturated condition of the soil during the rainy season.



Cautionary Note:

Any one of the following conditions **disqualify** site for a rain garden:

- * *hit hard pan soil*
- * *hole fills with water*
- * *test hole does not drain at least .25" per hour*

Infiltration Test & Certification Form: (check all boxes)

A. Upon digging hole, did you hit hard pan? (hard pan is like concrete)

Yes No

B. Upon digging hole, did the hole fill with water?

Yes No

If you answered "No" to A. and B., continue test.

1. Fill the hole (**1st fill**) to the **12-inch mark**. Done Not Done

2. Let the hole drain completely. Done Not Done

3. Fill the hole again (**2nd fill**) to the **12-inch mark**. Done Not Done

Let the hole drain completely and **record** duration of time hole drains: Amount of time to drain: ___hrs. ___mins.

5a. Fill the hole again (**3rd fill**) to the **12-inch mark**. Done Not Done

5b. Record number of inches water has fallen in 1 hour: _____ inches



Be as accurate as possible!

5c. Record number of inches water has fallen from hour 1 to hour 2: _____ inches
If hole is already empty, refill hole (4th fill) and skip to step 5e. (use the 15 minutes table).

5d. Record next entries on appropriate table. Determine which table and interval to use, by following these guidelines. **Select appropriate interval with a check:**

>3" per hour fall, check at 15 minute intervals = Table 1

3" to 1" per hour fall, check at 30 minute intervals = Table 2

<1" per hour fall, continue to check at hourly intervals = Table 3

5e. Now measure the fall of water 3 more times on selected table below:
If hole empties prior to given time interval, refill and continue recording.

TABLE 1 (15 MINUTES)		
Time (15 min duration)	Ruler Reading (Inches)	Hole Refilled 12" (Yes or No)

TABLE 2 (30 MINUTES)		
Time (30 min duration)	Ruler Reading (Inches)	Hole Refilled 12" (Yes or No)

TABLE 3 (1 HOUR)		
Time (60 min duration)	Ruler Reading (Inches)	Hole Refilled 12" (Yes or No)

6. Contractor calculation of infiltration rate: _____ inches per hour

- ≥ 0.25 in/hr: use 0.25 RG size in table & replace soil with 'Bioretention' soil mix
- ≥ 0.5 in/hr: use 0.5 RG size in table & replace soil with 'Bioretention' soil mix
- ≥ 1.0 in/hr: use 1.0 RG size in table and replace soil with 'Bioretention' soil mix
- > 1.0 use 1.0 in/hr RG size in table (You may not make your rain garden size smaller)

Signatures are required and must be included with your rebate materials, to be eligible for a RainWise Rebate.

I certify that I have followed the procedures outlined in this document to determine my rain garden sizing. I have chosen to size my rain garden in accordance with these results. I understand that rain gardens are sized for moderate rain events and that regardless of infiltration ability of my soil that my rain garden must have a clear and safe overflow path according to RainWise program details.

Certification Test Performed by:

Homeowner or Contractor Print Name _____
 Signature _____ Date _____

Infiltration Rate Calculated by:

Contractor Print Name _____
 Signature _____ Date _____