

# Worksheet B4

## Rain Gardens (BMP T5.14A)



Rain Gardens can only be utilized for roofs if full dispersion and downspout full infiltration are infeasible. Rain Gardens can only be used for hard surfaces if full dispersion is infeasible. Applicants must submit this completed worksheet and an accompanying site plan if selecting this technology. To complete this worksheet, applicant must:

1. Review infeasibility criteria below to determine if this BMP is feasible
2. Check that applicable design criteria below is met
3. Select Applicable Details
4. Submit a Site Plan



### { Step 1: Review Infeasibility Criteria }

If any of the following infeasibility criteria are met, this technology is considered infeasible. Applicant must list the specific infeasibility criteria below on the Stormwater Site Plan (Worksheet A1) and move on to the next BMP technology.

### Infeasibility Criteria

**Note: The infeasibility criteria below does not require written justification from a licensed professional**

Cannot feasibly locate outside of an area designated as an erosion hazard or landslide hazard.

Cannot feasibly locate bioretention facilities on slopes less than 8%.

### Infeasibility Criteria (Cont.)

Cannot feasibly located further than 50 feet from the top of slopes that are greater than 20% and over 10 feet of vertical relief.

Surface soils are contaminated and contaminated areas cannot feasibly be removed.

Site is a Federal Superfund site or a state cleanup site under the Model Toxics Control Act (MTCA) (uncommon)

Cannot feasibly located at least 100 feet from a closed or active landfill.

Cannot feasibly located further than 100 feet from a drinking water well, or a spring used for drinking water supply.

Cannot feasibly be located at least 10 feet away from a septic system.

**Note: The Infeasibility criteria below requires written documentation from an appropriate licensed professional (e.g. engineer, geologist, hydrogeologist)**

Cannot feasibly be located at least 10 feet away from an underground storage tank storing hazardous materials.

Minimum vertical separation of 1 foot to the seasonal high water table, bedrock, or other impervious layer would below bioretention or rain gardens is not achievable.

Field testing indicates potential bioretention/rain garden sites have a measured (a.k.a., initial) native soil saturated hydraulic conductivity less than 0.30 inches per hour.



### { Step 2: Review Applicable Design Criteria }

Complete the following checklist (list "N/A" where design criteria does not apply).

Design Criteria for Rain Gardens and Bioretention		
Applicant	Reviewer	Criteria
		Project does not trigger any of the infeasibility requirements above
		Surface area of bioretention is 5% of the total hard surface area draining to it
		Surface area of bioretention is 2% of the total pervious surface area draining to it (if applicable)
		Flow enters via sheet flow on vegetated surface or a splash block or rock pad at the end of a downspout
		Minimum bottom width of 2 feet
		Maximum side slopes of 3:1
		Maximum ponding depth is 12" (6" recommended)
		Overflow is provided through an overflow pipe connected to the public storm system
		Overflow is sheet flow onto pervious areas that will not adversely impact downgradient properties



### **{ Step 3: Select Applicable Details }**

(City of Puyallup is working on Standard details for Rain Garden Components, applicants will be directed to the rain garden handbook for additional information.)



### **{ Step 4: Submit a Site Plan }**

Submit a site plan that contains all of the following information:

- Scale and North arrow
- Location, dimensions, and total area of proposed bioretention
- Area of surface draining to bioretention
- Location and type of inflow
- Location of overflow drains, if applicable
- Applicable details from Step 3 above
- Dimension to nearby property lines, structures, steep slope, lake, wetland, or other impervious surface where applicable