COMMUNITY DEVELOPMENT
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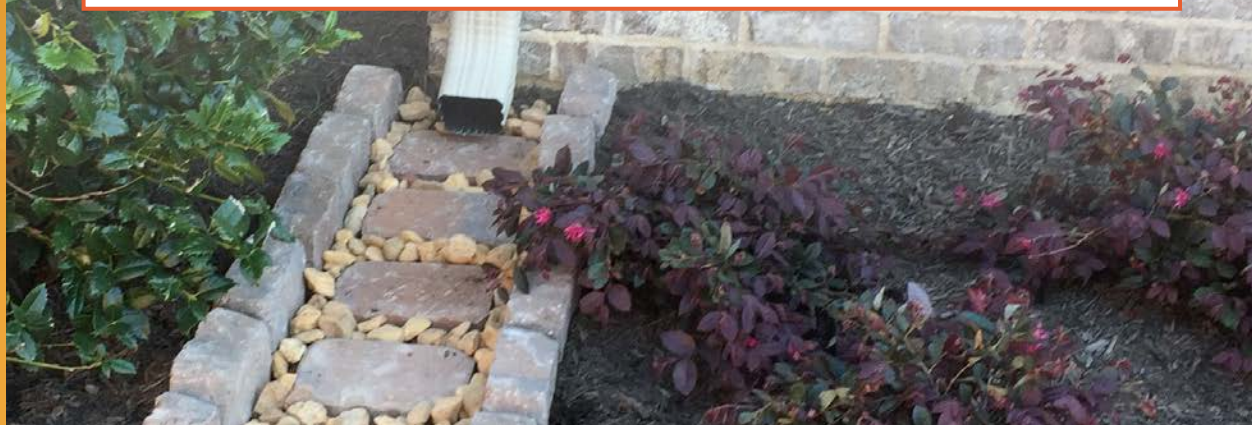
Infeasibility Checklist for Roofs

Use the Infeasibility Checklist for Roofs to determine feasibility of On-Site Stormwater Management for projects using the Construction Stormwater Application for Small Projects or projects using List #1 in the Washougal Engineering Standards for Public Works Construction to meet Minimum Requirement #5. *Note: this form should not be used for projects using List #2 to meet Minimum Requirement #5.*

Instructions:

1. Use this list to select a BMP (or BMPs, if there is more than one roof) to manage runoff from roofs.
2. Evaluate each BMP in the order given below.
3. Answer questions using site-specific information.
4. If you answer "No" to a question, continue on to the next question.
5. If you answer "No" to all questions in the table:
    a. The BMP **is feasible,** and you are required to use it to manage runoff from roofs.
    b. Go to the "Determination" row in the table and mark the "No" column to indicate that the BMP is not infeasible.
    c. Go to Step 7.
6. If you answer "Yes" to a question:
    a. The BMP **is not feasible and/or not required**, and you are not required to use it.
    b. Skip down to the "Determination" row in the table and mark the "Yes" column to indicate that the BMP is infeasible.
    c. Go to the next table to evaluate the next BMP in the list.
7. Submit this form with your stormwater permit application or plans.



INFEASIBILITY CHECKLIST
for Roofs

DOWNSPOUT FULL INFILTRATION

	YES	NO
The following criteria require information from the Soils Report prepared by a qualified professional.		
1. Did the Soils Report demonstrate that soils in location of the roof downspout infiltration system do not fall within USDA textural classes of coarse to medium sands, loam, or cobbles and gravels?		
2. Is there less than 3 feet of permeable soil from the proposed finished ground elevation at the drywell or trench location to the seasonal high groundwater table?		
3. Is there less than 1 foot of soil from the proposed bottom elevation of the roof downspout infiltration trench or drywell to the groundwater elevation?		
The following criteria may be determined by the Applicant and/or Authorized Representative.		
4. Is the only available location for the system on a slope of 25% (4:1) or greater?		
5. Is the only available location for the system in a landslide hazard area?		
6. Can the system not reasonably be designed to meet all of the following setbacks: • At least ten feet from any structure, property line, or critical area (except slopes over 40%); • At least 50 feet from the top of any slope over 40%; • At least 10 feet and downgradient of an on-site septic system. • At least 100 feet from a closed or active landfill.		
7. Do any of the Competing Needs prevent or restrict use of Downspout Full Infiltration? (see page 3) *If Yes, describe and justify the Competing Need(s) on a separate piece of paper and attach to this form.*		
DETERMINATION: Is Roof Downspout Full Infiltration infeasible? *If Yes, continue to the next table to evaluate a Rain Garden.* *If No, stop here and use Roof Downspout Full Infiltration to manage runoff from roofs.*		

RAIN GARDENS

	YES	NO
If the project site discharges directly or indirectly to the Columbia River through an entirely manmade conveyance system (ditch, pipe, outfall protection), then the Applicant is not required to consider a Rain Garden. Does the site meet this criterion?		
Was Rain Garden found to be infeasible **for roofs** for this project?		
The following criteria may be determined by the Applicant and/or Authorized Representative.		
1. Is the only available location for the Rain Garden in a landslide hazard or erosion hazard area?		
2. Is the only available location on a slope of 8% or steeper?		

	YES	NO
3. Is the only available location within 50 feet from the top of a slope greater than 20% and taller than 10 feet?		
4. Is the only available location within 100 feet of a closed or active landfill?		
5. Is the only available location within 100 feet of a water well or spring used for drinking water?		
6. Is the only available location within 10 feet of a small on-site sewage disposal drain field, including reserve areas, and greywater reuse systems or within setbacks for large on-site sewage disposal systems established in Washington Administrative Code Chapter 246-272B?		
7. Is the only available location within 10 feet of an underground storage tank and its connecting underground pipes that 1) together have a capacity of 1,100 gallons or less and 2) 10% or more of the total storage volume is underground, and 3) that stores petroleum products, chemicals, or liquid hazardous wastes?		
8. Is the only available location within 100 feet of an underground storage tank and its connecting underground pipes that together have a capacity of greater than 1,100 gallons?		
9. Is the only available location within 10 feet from any structure, property line, or critical area (except slopes over 20%)?		
10. Do any of the Competing Needs prevent or restrict use of a Rain Garden? (see last section) *If Yes, describe and justify the Competing Need(s) on a separate piece of paper and attach to this form.*		
The following criteria require information from the Soils Report prepared by a qualified professional.		
11. Did the Infiltration / Percolation Evaluation field testing indicate that the infiltration rate at the available location for a Rain Garden is less than 0.3 in/hr?		
12. Did the Infiltration / Percolation Evaluation field testing indicate that there is less than one foot of vertical separation from the bottom of the Rain Garden to the seasonal high water table, bedrock, or other impervious layer?		
13. Did the Infiltration / Percolation Evaluation field testing indicate that there is less than one foot of permeable soil from the proposed finished grade to the seasonal high water table, bedrock, or other impervious layer?		
The following criteria require a written recommendation from an engineer, geologist, or hydrogeologist based on an evaluation of the site.		
14. Does a professional geotechnical evaluation recommend infiltration not be used due to concerns about erosion, slope failure or flooding?		
15. Does the site have groundwater that drains into an erosion hazard or landslide hazard area?		
16. Does the only available location for the Rain Garden threaten the safety or reliability of existing underground utilities, existing underground storage tanks, existing structures and basements, or existing roads or parking lots?		
17. Is the only available location one that does not allow for a safe overflow pathway to the municipal separate storm sewer system or to a private storm sewer system?		
18. Is the site a redevelopment[1] that lacks usable space?		
19. Would infiltrating water threaten shoreline structures such as bulkheads?		

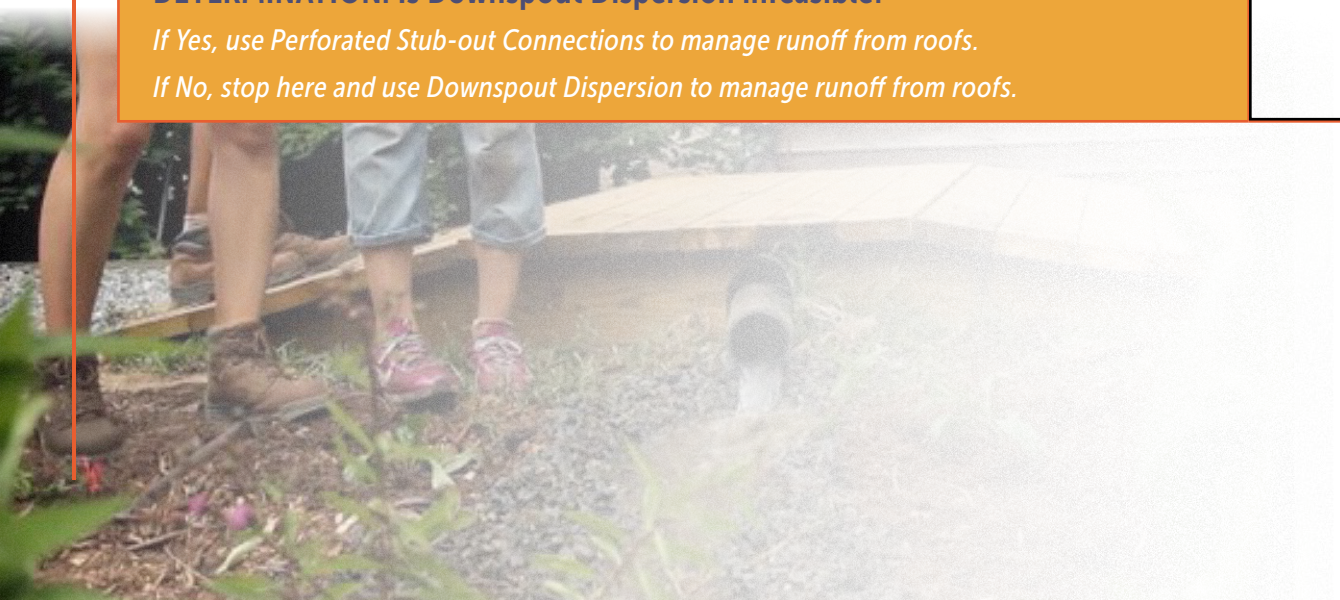
Continued on following page.

[1] *A redevelopment site is already 35% developed prior to the current construction project.*

	YES	NO
20. Is the property known to have soil or groundwater contamination (typically federal Superfund sites or state cleanup sites under the Model Toxics Control Act (MTCA)) and does a professional evaluation or published information indicate any of the following: • The available location is within 100 feet of an area known to have deep soil contamination; or • Groundwater modeling indicates infiltration will likely increase or change the direction of the migration of pollutants in the groundwater; or • Surface soils have been found to be contaminated; or • Infiltration is prohibited by an approved cleanup plan under the state Model Toxics Control Act or federal Superfund Law or an environmental covenant under Revised Code of Washington Chapter 64.70?		
The following criterion requires a written finding from the City Public Works Department.		
21. Has the Public Works Department determined that Rain Garden is not compatible with surrounding drainage systems?		
DETERMINATION: Is a Rain Garden infeasible? *If Yes, continue to the next table to evaluate Downspout Dispersion.* *If No, stop here and use a Rain Garden to manage runoff from roofs.*		

DOWNSPOUT DISPERSION

	YES	NO
1. Does the only available location for the dispersion device (splash block or trench) have a vegetated flow path of less than 25 feet from any property line, structure, stream, wetland, or impervious surface?		
2. Does the only available location for the dispersion device (splash block or trench) have a vegetated flow path of less than 50 feet from the top of a slope over 15%?		
3. Does the only available location discharge within 100 feet up slope of a septic system drain field?		
4. Do any of the Competing Needs prevent or restrict use of Downspout Dispersion? (see last section) *If Yes, describe and justify the Competing Need(s) on a separate piece of paper and attach to this form.*		
DETERMINATION: Is Downspout Dispersion infeasible? *If Yes, use Perforated Stub-out Connections to manage runoff from roofs.* *If No, stop here and use Downspout Dispersion to manage runoff from roofs.*		



COMPETING NEEDS

Requirements to use On-Site Stormwater Management (Minimum Requirement #5) may be superseded or reduced when they are in conflict with:

- Requirements of the following federal or state laws, rules, and standards: Historic Preservation Laws and Archaeology Laws as listed at *https://dahp.wa.gov/project-review/preservation-laws*, Federal Superfund or Washington State Model Toxics Control Act, Federal Aviation Administration requirements for airports, Americans with Disabilities Act.
- Public health and safety standards.
- Transportation regulations to maintain the option for future expansion or multi-modal use of public rights-of-way.
- Requirements of the City's Critical Aquifer Recharge Area code in WMC 16.04.050.

To cite Competing Needs as a reason to preclude or reduce the use of On-Site Stormwater Management, the Applicant must describe the conflict and justify the reduction in a written narrative attached to this form.