STORMWATER OPTIONS & GUIDANCE

What is Stormwater? Stormwater is rainwater that runs off hard surfaces like roofs and driveways and needs to be infiltrated into the soil on-site1 before it causes flooding and erosion, which can lead to polluted water and potential landslides. Erosion can weaken bluffs and slopes, and damage fish habitat like streams, rivers and Puget Sound.

How do I infiltrate the stormwater? There are several easy options to choose from for most residential building projects. Larger projects usually require engineering. Retaining native vegetation and reducing hard surfaces as much as possible will reduce stormwater runoff and help you comply with the stormwater code requirements.2

What is required for my building permit? Keep stormwater in mind when planning your site. The Stormwater Calculation Worksheet is required for all building projects and stormwater treatment must be identified on your site plan (see reverse for an example). During construction, and after, projects must prevent stormwater from leaving the site (refer to ‘2.5.2 Minimum Requirement #2: Construction Stormwater Pollution Prevention (SWPP)’).

What are my options?

<table>
<thead>
<tr>
<th>Stormwater Option</th>
<th>Site Conditions</th>
<th>Best Management Practice (BMP)* Guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Full Dispersion or 65/10</td>
<td>If the lot is large and has enough retained native vegetation, the stormwater can be dispersed into the exiting vegetation on-site. This option is called “65/10” or “Full Dispersion” because 65% of the native vegetation is retained and not more than 10% of the development site is converted to hard (impervious) surface.</td>
<td>BMP T5.30 Full Dispersion</td>
</tr>
<tr>
<td>2 Downspout Infiltration</td>
<td>If the lot can’t meet full dispersion, then infiltration may be achieved using a drywell or infiltration trench.</td>
<td>BMP T5.10A Downspout Infiltration</td>
</tr>
<tr>
<td>3 Rain Garden/ Bioretention</td>
<td>Rain gardens and swales (recessed vegetated stormwater infiltration/treatment areas) must be considered when required (&gt;5,000 square feet of hard surface). They are one low impact development (LID) option that incorporates native vegetation and a landscape approach to protect and beautify the property.</td>
<td>Rain Garden Handbook for Western Washington</td>
</tr>
<tr>
<td>4 Gutter, Downspout &amp; Splashblock</td>
<td>The easiest, most common option is to use gutters, downsputs and splashblocks that meet code requirements. This approach provides less aesthetic and habitat value for the property.</td>
<td>BMP T5.10B Downspout Dispersion &amp; Design Criteria for Splashblocks</td>
</tr>
</tbody>
</table>

*These BMPs are from the 2012 Stormwater Management Manual for Western Washington.

Other things to consider:
- All infiltration systems must be a minimum of 10 feet from any structure, meet all critical area buffers and setbacks and be a minimum of 10 feet downgradient of septic drainfields.
- Depending on soils, critical areas, other site constraints and the amount of stormwater your project generates, DCD may require engineering and/or professionally prepared plans.
- Try our Coaching Service if you have questions or concerns about stormwater on your site.

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1 There are exceptions to this such as a Geotechnical Report recommendation or where infiltration is not feasible because of poor draining soils.
2 Refer to JCC 18.30.070 and the Stormwater Management Manual for Western Washington for more detail.
Example of Site Plan with Stormwater flow control and drainage elements

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<table>
<thead>
<tr>
<th>1-20'</th>
<th>NORTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>135 FEET</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL IMPERVIOUS SURFACE = 2776 sq. ft.
EXISTING CONTOURS ARE SHOWN

SLOPE OVER:10%

NATIVE VEGETATION WILL BE RETAINED

4: PIPE w/ 1 hole in cap and STABILIZED OUTLET

RAINFIELD ORANGE\ RAIN GARDEN DRAINS 1155 SQ. FT. HOUSE = 1.85 SQ. FT.

PRIVATE WELL

445 SQ. FT.

GARAGE

RAINFIELD 180 SQ. FT.
DRAINS 909 SQ. FT.

4: PIPE w/ 1 hole in cap

ROADSIDE DITCH
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