



Planning & Community  
Development

17500 Midvale Avenue North  
Shoreline, WA 98133-4905  
206-801-2500 [phone]  
206-801-2788 [fax]  
pcd@shorelinewa.gov  
www.shorelinewa.gov

# Surface Water Drainage Requirements

## Technical Guidance



Surface water drainage requirements for development projects based on a project's impact. The City identifies three categories of impact projects: Small, Medium, and Large. Use the table below to determine the type of impact project based on two thresholds: proposed hard surface and amount of disturbed area. A project is classified based on the highest impact level of either threshold.

| Thresholds                  | Small Impact Project | Medium Impact Project | Large Impact Project  |
|-----------------------------|----------------------|-----------------------|-----------------------|
| New + Replaced Hard Surface | Less than 2,000 SF   | 2,000 SF to 5,000 SF  | Greater than 5,000 SF |
| Total Area of Disturbance   | Less than 7,000 SF   | Greater than 7,000 SF | Greater than 7,000 SF |

A Small Impact Project triggers Minimum Requirement #2 of the 2014 Department of Ecology (DOE) *Stormwater Management Manual for Western Washington*. Minimum Requirement #2 is a Stormwater Pollution Prevention Plan (SWPPP), which is often referred to as an erosion and sediment control plan.

A Medium Impact Project triggers Minimum Requirements #1 through #5 of the 2014 Department of Ecology (DOE) *Stormwater Management Manual for Western Washington*. Minimum requirements #1 through #5 are:

1. Prepare stormwater site plans
2. Construct stormwater pollution prevention (erosion prevention)
3. Control pollutant sources
4. Preserve natural drainage systems and outfalls
5. Manage stormwater onsite

Projects that are not Small Impact or Medium Impact are Large Impact projects. These projects trigger Minimum Requirements #1-9 and require engineering design according to the 2014 Department of Ecology (DOE) *Stormwater Management Manual for Western Washington*.

### Hours of Operation:

Monday 8:00 am-5:00 pm  
Tuesday 8:00 am-5:00 pm  
Wednesday 1:00 pm-5:00 pm  
Thursday 8:00 am-5:00 pm  
Friday 8:00 am-5:00 pm

*Permit Processing Ends at 4:00 pm Daily*

|  | Small Impact Project                                  | Medium Impact Project  | Large Impact Project  |
|--|---|--|---|
| Minimum Requirements per DOE Stormwater Management Manual for Western Washington | Minimum Requirement #2                                | Minimum Requirements #1-5  | Minimum Requirements #1-9   |
| Soils Report   | Not Required  | A soils analysis is required. Grain-size analysis or PIT are acceptable to calculate infiltration rates. | Geotechnical report is required. Grain-size analysis or PIT are acceptable to calculate infiltration rates. If grain-size analysis is performed, geotechnical engineer is required to review drainage design. |
| Surface Water Report   | Not Required  | Required   | Required  |
| Site Development Plan  | Not Required  | Required   | Required  |
| Is a licensed engineer required to prepare the site development plan?            | Not Required  | Required if the site is within 100 feet of a critical area or its buffer                                 | Required  |
| Stormwater Pollution Prevention Plan (SWPPP)                                     | SWPPP Short Form for Small and Medium Impact Projects | SWPPP Short Form for Small and Medium Impact Projects  | Department of Ecology's SWPPP template  |
| Declaration of Covenant  | Not Required  | Required for any stormwater facilities   | Required for any stormwater facilities  |
| Copy of NPDES CSWGP Coverage Letter  | Not Required  | Required, if coverage is Necessary   | Required, if coverage is necessary  |

## ACRONYMS AND DEFINITIONS

|       |   |
|-------|---|
| BMP   | Best Management Practice                        |
| DOE   | Department of Ecology                           |
| LID   | Low Impact Development                          |
| SWPPP | Stormwater Pollution Prevention Plan            |
| V:H   | Vertical to Horizontal                          |
| NPDES | National Pollution Discharge Elimination System |
| CSWGP | Construction Stormwater General Permit          |

The following two terms apply to very similar site conditions. The important difference between the two terms is that one term (impervious) applies to surface water/drainage and the other term (hardscape) applies to lot coverage in the zoning code.

**Impervious** – is a surface water term. An impervious surface is a hard surface area which either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development. A hard surface area which causes water to run off the surface in greater quantities or at an increase rate of flow from the flow present under natural conditions prior to development. Common impervious surfaces include, but are not limited to, roof tops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled, macadam or other surfaces which similarly impede the natural infiltration of stormwater.

**Hardscape** – is a zoning-related term. The Development Code defines Hardscape as: Any structure or other covering on or above the ground that includes materials commonly used in building construction such as wood, asphalt and concrete, and also includes, but is not limited to, all

structures, decks and patios, paving including gravel, pervious or impervious concrete and asphalt. The most common residential zone, R-6, restricts hardscape on lots to 50% of the lot.

## **Why Drainage Requirements?**

Increased runoff can cause erosion, increase scour in streams and drainage channels, and contribute to slope failures. Increased runoff collects pollutants and carries them to streams, lakes, wetlands, and Puget Sound.

Nearly all improvements on a site increase the storm water runoff by decreasing the amount of rainwater and snow melt that can soak into the ground. Such improvements include:

1. Removing trees and other vegetation
2. Grading
3. Installing roofs, pavements, and similar hard surfaces
4. Installing lawn and topsoil
5. Driving over the ground
6. Placing plastic in landscaping areas

More information regarding drainage requirements can be found in Division 3 and Appendix C of the 2019 Engineering Development Manual and in the 2014 Stormwater Management Manual for Western Washington.

## **What is Low Impact Development?**

On May 1<sup>st</sup>, 2009, the City of Shoreline implemented new surface water code that requires Low Impact Development (LID) for projects that disturb soils or add, replace, or create impervious surfaces. An impervious surface is a surface that can not be penetrated easily. Examples are pavement, patios, roofs, and plastic-covered soils.

LID emphasizes conservation and integration of on-site natural features during development. Careful consideration of existing features on and near a site and incorporation of LID best management practices can significantly lower stormwater requirements for a project.

LID is required as part of Minimum Requirement #5 for Medium and Large Impact Projects.

## **Does my project need a permit?**

If your project triggers Minimum Requirement #2 Stormwater Pollution Prevention Plan (SWPPP), then you need a permit. The City reviews and approves *Small Impact Drainage Plans* through a building permit or through a separate site development permit.

## **What is a Stormwater Pollution Prevention Plan (SWPPP)?**

A Stormwater Pollution Prevention Plan (SWPPP) includes both plans and a narrative. All development, regardless of size, is required to prevent erosion and sedimentation.

The City allows Small and Medium Projects to use a SWPPP Short Form Template instead of the Department of Ecology (DOE) SWPPP template. The SWPPP Shore Form is attached here, and the DOE SWPPP Template is available online at: <https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits/Construction-stormwater-permit/eCoverage-packet>

## **What is a Declaration of Covenant?**

A declaration of covenant is required for all permanent surface water Best Management Practices (BMPs) on all projects. A declaration of covenant is a legal document that grants the City permission to access the property to inspect BMPs. The covenant includes several exhibits, which detail the BMPs and address operation and maintenance requirements. The facility owner is responsible for operating and maintain all MBPs.

A completed draft covenant will be submitted with the permit application for review and approval. The covenant will need to be recorded with the King County Recorder's Office, after the City inspectors have verified that the BMPs have been constructed per the plans.

### **What is the NPDES CSWGP and when do I need to apply for coverage?**

The NPDES CSWGP is the National Pollution Discharge Elimination System Construction Stormwater General Permit. The Washington State Department of Ecology (DOE) administers the permit for Washington State. More information is available online from the DOE:

<https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Sotrmwater-general-permits/Construction-stormwater-permit>

Most projects will not require CSWGP coverage. Projects that disturb at least one acre or are reasonably expected to cause a violation of water quality standards typically require CSWGP coverage. It is the applicant's responsibility to apply for coverage prior to receiving any permits from the City. A copy of the coverage letter from Ecology is required prior to permit coverage.