



# Fact Sheet #6

## 2009 DRAINAGE DESIGN AND EROSION CONTROL MANUAL FOR THURSTON COUNTY

### What are the 12 Minimum Requirements? When do they Apply?

#### Overview

Under the new 2009 Drainage Manual, if a project is not exempt from submittal requirements and depending on the type of project and the amount of land disturbing activity, impervious surface, and grading, the applicant will be required to meet one or more of twelve minimum requirements. The 12 minimum requirements, which are described in more detail in this fact sheet, are:

- #1: Preparation of Stormwater Site Plans**
- #2: Construction Stormwater Pollution Prevention**
- #3: Source Control of Pollution**
- #4: Preservation of Natural Drainage Systems and Outfalls**
- #5: On-site Stormwater Management**
- #6: Runoff Treatment**
- #7: Flow Control**
- #8: Wetlands Protection**
- #9: Basin/Watershed Planning**
- #10: Operation and Maintenance**
- #11: Financial Liability**
- #12: Off-Site Analysis and Mitigation**

#### Description of 12 Minimum Requirements

**Minimum Requirement #1: Preparation of Stormwater Site Plans:** Requires plans, reports and other documents be prepared and submitted to demonstrate compliance with the minimum requirements. Depending on the size and type of your project, submittals that will meet Minimum Requirement #1 include:

1. Abbreviated Drainage Plan: (No civil engineer required).
2. Engineered Abbreviated Drainage Plan: (Civil Engineer Required).
3. Full Drainage and Erosion Control Plan (Civil Engineer Required)
4. Short Form Construction Stormwater Pollution Prevention Plan (uses template).
5. Full Construction Stormwater Pollution Prevention Plan (TESC drawings & Narrative)

**Minimum Requirement #2: Construction Stormwater Pollution Prevention:** Requires temporary sediment and erosion controls and design of construction best management practices for all non-exempt projects to reduce stormwater pollutants in construction site runoff. A Construction Stormwater Pollution Prevention Plan (SWPPP) includes Temporary Erosion and Sediment Control (TESC) Drawings and a Narrative that addresses the following twelve elements:

1. Mark clearing limits
2. Establish construction access
3. Control flow rates
4. Install sediment controls
5. Stabilize Soils
6. Protect slopes
7. Protect drain inlets
8. Stabilize channels and outlets
9. Control pollutants
10. Control dewatering
11. Maintain BMPs
12. Manage the project

Volume II of the Drainage Manual provides detailed guidance on meeting Minimum Requirement #2. It includes the required content of a Construction Stormwater Pollution Prevention Plan (SWPPP) and provides detailed information on BMPs related to construction site stormwater management.

**Minimum Requirement #3: Source Control of Pollution:** Requires an applicant to prepare a source control plan for their project that describes best management practices to reduce or eliminate sources of pollutants prior to their entry into the stormwater system. Volume IV of the Drainage Manual provides detailed guidance on the development of a source control plan for those projects that meet the minimum thresholds for Minimum Requirement #3. The Source Control Plan will be prepared and submitted with other project documentation for review & acceptance by Thurston County.

**Minimum Requirement #4: Preservation of Natural Drainage Systems and Outfalls:** Requires that stormwater discharges from a project site occur at the natural location that existed prior to development to the maximum extent practicable.

**Minimum Requirement #5: On-site Stormwater Management:** Requires that projects employ “on-site” measures to the maximum extent feasible including infiltration, dispersion, and retention of stormwater; restoration of native vegetation; and use of compost amended soils to restore soils quality and depth in landscape areas and lawns. These on-site measures are based on “Low Impact Development” (LID) principles and are more effective in reducing disruptions to the site’s natural hydrologic characteristics and are preferable to more traditional stormwater management techniques.

**Minimum Requirement #6: Runoff Treatment:** Requires projects meeting thresholds to provide runoff treatment to reduce water quality impacts of stormwater runoff. Runoff treatment includes basic treatment, enhanced treatment, phosphorous control and oil control. Depending on the project characteristics one or all of the above treatment levels may be required. Generally, if there is more than 5,000 square feet of pollution generating impervious surfaces or greater than three-quarters of an acre of

pollution generating pervious surface (lawn, landscape, etc.) then runoff treatment is required. If your project is within a lake basin where the lake is impacted by phosphorous then phosphorous treatment is required. If your project is a multi-family residential, commercial, or industrial project that discharges to a fish bearing stream or its tributaries then enhanced treatment will be required. Enhanced treatment is for removal of metals from the stormwater. Oil control is required for certain types of businesses handling petroleum products and high use parking lots and roadways.

**Minimum Requirement #7: Flow Control:** Requires projects meeting thresholds to provide for controlled release of stormwater from the project such that stream bank erosion is prevented. Also requires projects to meet minimum levels of infiltration based on pre-development infiltration volumes.

A continuous simulation hydrologic model (Western Washington Hydrologic Model Version 3) is required to be used to demonstrate compliance with this Minimum Requirement.

Flow control facilities can include detention ponds, vaults, tanks; LID practices such as dispersion or rain gardens (bioretention); infiltration including infiltration ponds, trenches, and swales.

**Minimum Requirement #8: Wetlands Protection:** Requires that projects discharging storm runoff directly or indirectly to wetlands demonstrate that the wetland is not substantially affected by the discharge. A wetlands consultant would typically be required to assist in making this demonstration and hydrologic modeling would be required.

**Minimum Requirement #9: Basin/Watershed Planning:** Requires that projects meeting thresholds and within Basins that have an adopted Basin Plan meet the requirements of the Basin Plan. Basin Plan requirements can be more stringent for facility design, erosion control, source control treatment, and other requirements. There are currently several adopted Basin Plans in Thurston County and the applicable plan should be consulted for specific conditions related to projects occurring within that drainage basin.

**Minimum Requirement #10: Operation and Maintenance:** Requires preparation of a Maintenance Plan for proposed stormwater facilities and BMP's and identification of the party responsible for maintenance and operation of the stormwater facilities. Also includes requirements for maintenance agreements with Thurston County and Establishment of a Homeowners Association for subdivision.

**Minimum Requirement #11: Financial Liability:** Requires that a financial guarantee be provided for the project to ensure the stormwater facilities will be constructed in accordance with approved designs. Includes requirements that any financial assurance shall not be released by the county until at least 80% buildout for subdivisions and at least 2-years after project approval. Requires developer to maintain the legal ability to affect repairs and maintenance to the stormwater facilities for the duration of the financial assurance even after all lots are sold. Alternatively allows for a financial assurance to be transferred to another party such as the Homeowners Association or a new property owner.

**Minimum Requirement #12: Off-Site Analysis and Mitigation:** Requires the applicant to evaluate the off-site impacts of the project's stormwater discharges including the capacity of downstream conveyance and the impact of the discharge to downstream water quality, erosion and flooding among other things.

## **Which of the 12 Minimum Requirements Will Apply to My Project?**

If your project meets any of the following criteria, then your stormwater submittal will need to address all 12 of the minimum requirements described above:

1. Creates greater than 5,000 square feet of new impervious surfaces such as roof area, pavement, roadways, gravel surfaced areas, parking lots, sidewalks, etc.
2. Results in 3/4 of an acre or more of native vegetation being converted to lawn or landscape.\
3. Results in 2.5 acres or more of native vegetation being converted to pasture.

Your stormwater submittal will need to address Minimum Requirements #1 through #5 and #12 if the project is below the above thresholds but meets any of the following criteria:

1. Creates greater than 2,000 square feet of new impervious surface.
2. Results in 7,000 square feet or more of land disturbing activity.

If your project does not exceed any of the thresholds listed above and your project is not exempt from submittal requirements then you will need to at least meet minimum requirement #2, *Construction Stormwater Pollution Prevention*.

## **Projects Exempt from Submittal Requirements**

Some projects are exempt from stormwater submittal requirements and/or the 12 minimum requirements. These are described in more detail in the Drainage Manual and are summarized as follows:

- You do not require a permit for your project such as building a small shed when no building permit is required or grading less than 50 cubic yards outside of critical areas.
- Total impervious area (new plus existing) is less than 5% of the parcel area and there is no increase in discharge from the project site to waters of the U.S. or adjacent properties.
- The project is a logging project and has obtained a forest practices permit from the Washington State Department of Natural Resources and is not a conversion of land to another use (Class IV forest practice).
- Commercial Agriculture, except that construction of impervious surfaces are not generally exempt.
- Oil and Gas Field Activities or Operations
- Minor maintenance and repair of roadways and parking lots.

- Linear Utility Projects that do not create new impervious surface, except that they are subject to Minimum Requirement #2, Construction Stormwater Pollution Prevention.
- Public Drainage Facilities.
- Emergency projects.
- Public works and private road projects completely within the right-of-way that do not add impervious surface and previously dispersed flows are not concentrated.

**NOTE:** Your project may still require a permit from Thurston County even if it is exempt from the submittal requirements of the Drainage Manual. Contact Thurston County Development Services to determine whether other permits are required for your project.

**For More Information:**

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