



Fact Sheet #5

2009 DRAINAGE DESIGN AND EROSION CONTROL MANUAL FOR THURSTON COUNTY

How Is the 2009 Drainage Manual Different from Ecology's 2005 Stormwater Management Manual for Western Washington?

Introduction

The latest update to the Washington State Department of Ecology's *Stormwater Management Manual for Western Washington* was completed in 2005 (Ecology Drainage Manual). To be in compliance with its Phase II NPDES stormwater permit, Thurston County is required to adopt and implement an updated Drainage Manual that is at least as restrictive/equivalent to the 2005 Ecology Drainage Manual. This requirement technically only applies within the NPDES Phase II boundary, which is generally the portions of unincorporated Thurston County that are more urbanized, however, Thurston County's Drainage Manual will apply throughout the county. Additionally the NPDES Phase II permit requires that "existing local requirements to apply stormwater controls at smaller sites, or at lower thresholds than required shall be retained." This "no-backsliding" clause requires that more stringent provisions of the 1994 Drainage Manual are included in the 2009 update.

This fact sheet describes the ways in which the Thurston County 2009 Drainage Manual goes beyond the requirements of the NPDES permit and/or the 2005 Ecology Drainage Manual and how it has accommodated the "no backsliding" provision of the NPDES permit.

Overview

The major areas in which the 2009 Thurston County Drainage Manual differs from the requirements of the 2005 Ecology Drainage Manual include:

- Generally project thresholds for when minimum requirements apply are the same under the new Thurston County Drainage Manual as they are in the 2005 Ecology Manual.
- Requires retrofit of existing impervious surfaces on a redevelopment project if certain impervious area and cost thresholds are met. The Ecology Drainage Manual only requires that the new or replaced impervious surface be managed to current standards if the cost of the improvement is greater than 50% of assessed value. Thurston County requires that a retrofit of the entire site (including existing impervious surfaces) to current Drainage Manual standards if there is greater than 5,000 sf of new impervious surface and greater than 25% increase in impervious surface or the cost of improvements exceed 25% of the assessed value of the existing improvements and the cost of the improvements is greater than \$690,000 in 2008 dollars.

- Requires at least an abbreviated drainage plan for virtually all projects including those with less than 2,000 square feet of new impervious surface or less than 7,000 square feet of land disturbing activities. The Ecology Drainage Manual would only require that Construction Stormwater Pollution Prevention measures be applied consistent with Minimum Requirement #2 but no stormwater site planning or submittals would be required.
- Requires matching of pre-development to post-development average annual infiltration if a project site has an average pre-development infiltration rate of greater than 0.5 inches/hour.
- Includes detailed design information and criteria for design of conveyance systems (pipes, swales, ditches, etc.).
- Includes two additional minimum requirements, one for off-site analysis and mitigation and one for financial assurance.
- Provides a BMP selection process that emphasizes Low Impact Development as a first priority and also provides detailed BMPs for Low Impact Development techniques.
- Provides for submittal of an Abbreviated Drainage Plan, Engineered Abbreviated Drainage Plan and a Short Form Stormwater Pollution Prevention Plan (SWPPP) for smaller projects, primarily residential in nature where the project size, location of the property and type of soils meet certain thresholds. Minimum Requirements have to be met as required by the project type and size, but can be met through a more simplified process which, in the case of an Abbreviated Drainage Plan does not require a licensed civil engineer to prepare.
- Expands on the requirements for characterization of the soils beneath a proposed infiltration facility depending on depth to groundwater and soil types. This includes requirements for additional soil testing and a groundwater mounding analysis if certain conditions are met such as depth to groundwater (<15 feet) or Type C/D (till soils).
- Provides requirements for setbacks from infiltration, detention and other stormwater facilities to buildings, drainfields, septic tanks, property lines, drinking water wells, steep slopes, and other site features. Includes a provision to allow a reduction in required setbacks if a geotechnical engineer evaluates the condition and recommends a lesser setback, subject to Thurston County approval.

For More Information:

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