Clark County Municipal Code
40.385 STORMWATER AND EROSION CONTROL (repealed 1-7-16) replaced by 40.386
40.385.010 Introduction

A. Purpose. The purpose of this chapter is to safeguard public health, safety and welfare by protecting the quality of surface and groundwaters for drinking water supply, recreation, fishing and other beneficial uses through the application of best management practices (BMPs) for stormwater management and erosion control.

B. Applicability.

1. The provisions of this chapter shall apply to all new development, redevelopment, and drainage projects consistent with the Stormwater Management Manual for Western Washington (SMMWW) as modified by this chapter, and the county's Stormwater Manual.

2. Applicability of this chapter may be modified by Sections 40.385.020(A)(8) and (9).

3. Meeting the requirements of this chapter is the joint and severable responsibility of both the owner(s) of the site on which land-disturbing activity occurs and the person(s) undertaking such activity. In addition, if the land-disturbing activity involves a county-issued permit, the applicant is also responsible for meeting the requirements of this chapter.

4. The responsible official is authorized to enforce the provisions of this chapter using the remedies and procedures in Title 32.

C. Exemptions.

1. Exemptions to the minimum requirements (listed in Section 40.385.010(D)) shall be granted for the following activities:

a. Forest practices regulated under Title 222 WAC, except Class IV general forest practices that are conversions from timber land to other uses.

b. Construction of agricultural buildings or other impervious surfaces for carrying out agricultural activities; provided, that no stormwater is released from the site directly or indirectly to the county's stormwater conveyance system.

c. Normal landscape maintenance activities and gardening.

d. Oil and gas field activities or operations including construction of drilling sites, waste management pits, and access roads, as well as construction of transportation and treatment infrastructure such as pipelines, natural gas treatment plants, natural gas pipeline compressor stations, and crude oil pumping stations. Operators are encouraged to implement BMPs to minimize erosion and to control sediment during and after construction activities to help ensure protection of surface water quality during storm events.

e. The following road maintenance practices:

(1) Pothole and square cut patching;

(2) Overlaying existing asphalt or concrete pavement without expanding the area of coverage;

(3) Shoulder grading;

(4) Regrading/reshaping drainage systems;

(5) Crack sealing;

(6) Resurfacing with in-kind material without expanding the road prism; and

(7) Vegetation management.

2. Exemptions to specific minimum requirements shall be granted for the following activities:

a. The construction of single-family homes, duplexes, and their accessory structures may be exempt from minimum requirements No. 6 through No. 10; provided, that the project site is included in a stormwater plan previously approved by the county.

b. Drainage projects that are not new development or redevelopment and do not create new underground injection control wells are exempt from minimum requirement No. 6, and the responsible official may waive all or parts of minimum requirement No. 1 if the project meets other applicable requirements of this chapter.

c. Underground utility projects that replace the ground surface with in-kind material or materials with similar runoff characteristics are only subject to minimum requirement No. 2.

d. New development and redevelopment meeting the criteria in Appendix I-E of the SMMWW are exempt from minimum requirement No. 7; provided, that:

(1) The discharge structure is designed to avoid erosion during all storms up to the one hundred (100) year storm; and

(2) If an existing discharge structure is used:

(a) The discharge structure must meet the requirements of Section 40.385.010(C)(2)(d)(1); and

(b) The discharge structure and conveyance system leading to the discharge must have adequate capacity to meet the requirements of this chapter.

e. In addition to the Columbia River, the Lewis River downstream of its confluence with Quartz Creek, and the East Fork of the Lewis River downstream of its confluence with Big Tree Creek, Appendix I-E of the SMMWW is appended to include Vancouver Lake and Lake River.

f. New development and redevelopment are exempt from wetland protection (minimum requirement No. 8); provided, that:

(1) The project does not change the rate, volume, duration, or location of discharges to and from the project site (e.g., where existing impervious surface is replaced with other impervious surface having similar runoff-generating characteristics, or where pipe/ditch modifications do not change existing discharge characteristics); or

(2) The project discharges to a slope wetland or riverine wetland where no depressional characteristics exist; or

(3) The project meets the land cover percentage requirements for full dispersion in accordance to SMMWW or the Stormwater Manual for flow control; or

(4) The county determines based on information in the preliminary stormwater plan, or information submitted for wetland review per Chapter 40.450, that the proposed project will not degrade wetland function.

3. New development and drainage projects undertaken by governmental agencies are exempt from Section 40.385.020(E)(5).

4. A proposed project is exempt from performing an off-site analysis if any of the following conditions apply:

a. The county determines based on the information in the final technical information report (TIR) that there is sufficient evidence to conclude that the project will not have a significant adverse impact on the downstream and/or upstream drainage system; or

b. The project:

(1) Adds less than two thousand (2,000) square feet of new impervious surface in the urban area or adds less than five percent (5%) of the site as new impervious surface in the rural area; and

(2) Adds less than thirty-five thousand (35,000) square feet of new pervious surface; and

(3) Does not construct or modify a drainage pipe/ditch that is twelve (12) inches or more in size/depth or that receives runoff from a drainage pipe/ditch that is twelve (12) inches or more in size/depth; and

(4) Does not contain or lie adjacent to a landslide, steep slope, or erosion hazard area; and

(5) The project is exempt from minimum requirement No. 8; or

c. The project does not change the rate, volume, duration, or location of discharges to and from the project site (e.g., where existing impervious surface is replaced with other impervious surface having similar runoff-generating characteristics, or where pipe/ditch modifications do not change existing discharge characteristics).

(Amended: Ord. 2009-12-01)
D. Definitions. For the purposes of this chapter, the following definitions shall apply. Additional definitions can be found in the SMMWW.

Basin plan
“Basin Plan” means a plan that assesses, evaluates, and proposes solutions to existing and potential future impacts to the beneficial uses of, and the physical, chemical, and biological properties of waters of the state within a basin.
Best management practices (BMPs)
“Best management practices (BMPs)” means schedules of activities, prohibitions of practices, maintenance procedures, managerial practices, or structural features that prevent or reduce adverse impacts to waters of Washington State.
Drainage project
“Drainage project” means the excavation or construction of pipes, culverts, channels, embankments or other flow-altering structures in any stream, stormwater facility or wetland in Clark County.
Impervious surface
“Impervious surface” means a hard surface that either prevents or retards the entry of water into the soil. Examples include, but are not limited to, structures, walkways, patios, driveways, carports, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, haul roads and soil surface areas compacted by construction operations, and oiled or macadam surfaces. Open, uncovered retention/detention facilities shall not be considered as impervious surfaces for the purposes of determining whether the thresholds for application of minimum requirements are exceeded. Open, uncovered retention/detention facilities shall be considered impervious surfaces for purposes of runoff modeling.
Land-disturbing activity
“Land-disturbing activity” means any activity that results in movement of earth, or a change in the existing soil cover (both vegetative and non-vegetative) and/or the existing soil topography. Land-disturbing activities include, but are not limited to, clearing, grading, filling, and excavation. Compaction that is associated with stabilization of structures and road construction shall also be considered a land-disturbing activity. Vegetation maintenance practices are not considered land-disturbing activity.
Low impact development
“Low impact development” means a stormwater management strategy that emphasizes conservation and use of existing natural site features integrated with distributed, small-scale stormwater controls to more closely mimic natural hydrologic patterns in residential, commercial, and industrial settings.
Maintenance
“Maintenance” means repair and upkeep activities conducted on currently serviceable structures, facilities, and equipment that involves no expansion or use beyond that previously existing and results in no significant adverse hydrologic impact. It includes those usual activities taken to prevent a decline, lapse, or cessation in the use of structures and systems. Those usual activities may include replacement of dysfunctional facilities, including cases where environmental permits require replacing an existing structure with a different type structure, as long as the functioning characteristics of the original structure are not changed.
Minimum requirements
“Minimum requirements” means the ten (10) sets of requirements that are part of the SMMWW, as follows:
• Minimum requirement No. 1: Preparation of stormwater site plans;
• Minimum requirement No. 2: Construction stormwater pollution prevention;
• Minimum requirement No. 3: Source control of pollution;
• Minimum requirement No. 4: Preservation of natural drainage systems and outfalls;
• Minimum requirement No. 5: On-site stormwater management;
• Minimum requirement No. 6: Runoff treatment;
• Minimum requirement No. 7: Flow control;

• Minimum requirement No. 8: Wetlands protection;
• Minimum requirement No. 9: Basin/watershed planning; and
• Minimum requirement No. 10: Operation and maintenance.

Native vegetation

"Native vegetation" means plant species, other than noxious weeds, that are indigenous to the coastal region of the Pacific Northwest and which reasonably could have been expected to naturally occur on the site.

New development

"New development" means:

• Land-disturbing activities, including Class IV general forest practices that are conversions from timber land to other uses;
• Construction or installation of a building or other structure;
• Creation of impervious surfaces; and
• Subdivisions, short subdivisions, and binding site plans, as defined and applied in Chapter 58.17 RCW.

Projects meeting the definition of redevelopment shall not be considered new development.

Pre-developed condition

"Pre-developed condition" means the land cover condition used to determine flow control requirements as required by Section 40.385.020(C)(2).

Project site

"Project site" means that portion of a property, properties, or right-of-way subject to land-disturbing activities, new impervious surfaces, or replaced impervious surfaces.

Redevelopment

"Redevelopment" means on a site that is already substantially developed (i.e., has thirty-five percent (35%) or more of existing impervious surface coverage):

• The creation or addition of impervious surfaces;
• The expansion of a building footprint or addition or replacement of a structure;
• Construction, installation or expansion of a building or other structure;
• Replacement of impervious surface that is not part of a routine maintenance activity; or
• Land-disturbing activities.

Replaced impervious surface

"Replaced impervious surface" means:

• For structures, the removal and replacement of any exterior impervious surfaces or foundation; or
• For other impervious surfaces, the removal down to bare soil or base course plus the replacement.

Responsible official

"Responsible official" means the Director of Clark County Public Works or their designee.

Road-related development

"Road-related development" means land-disturbing activity where the sole objective is the development or redevelopment of roads, sidewalks and bike lanes.

Site

"Site" means the area within the legal boundaries of a parcel or parcels of land that is (are) subject to new development or redevelopment. For road projects, the length of the project site and the right-of-way boundaries define the site.

Stormwater Facility Maintenance Manual

"Stormwater Facility Maintenance Manual" means the January 2009 stormwater facility maintenance manual maintained by Clark County Public Works.

Stormwater Management Manual for Western Washington

"Stormwater Management Manual for Western Washington" (SMMWW) means the stormwater manual adopted by the Department of Ecology in February 2005.

Stormwater Manual
"Stormwater Manual" means the June 2013 stormwater manual maintained by Clark County Environmental Services.
Substantial completion
"Substantial completion" means:
• Following inspection, stormwater facilities are operational and constructed to county standards;
• Streets are constructed and at least one (1) lift of asphalt is installed when paving is required; and
• The project is in full compliance with this chapter.
Underground injection control
"Underground injection control" means a manmade subsurface fluid distribution system designed to discharge fluids into the ground that consists of an assemblage of perforated pipes, drain tiles, or other similar mechanisms, or a dug hole whose depth is greater than the largest surface dimension.
(Amended: Ord. 2009-01-01; Ord. 2009-12-01; Ord. 2013-06-16; Ord. 2013-08-01)
40.385.020 Standards – Stormwater Control
A. General Standards.

1. The SMMWW as modified by the county's Stormwater Manual is adopted by reference, and the recommendations and requirements contained therein will be the minimum standards for this chapter except as modified in this chapter.

2. Where provisions of this chapter conflict with other Title 40 requirements, the more stringent shall apply.

3. Stormwater facilities shall be constructed in accordance with the Standard Specifications for Road, Bridge, and Municipal Construction 2008 as prepared by the Washington Department of Transportation.

4. All urban new development and redevelopment shall comply with the following:

a. Minimum requirement No. 2 and Section 40.385.030.

b. New development and redevelopment that creates or adds two thousand (2,000) square feet or more of new, replaced, or new-plus-replaced impervious surface or which has land-disturbing activity of seven thousand (7,000) square feet or more shall comply with minimum requirements No. 1 through No. 5 for the new and replaced impervious surfaces and the land disturbed.

c. New development and redevelopment that creates or adds five thousand (5,000) square feet or more of new impervious surface, converts three-quarters (0.75) of an acre or more of native vegetation to lawn or landscaped area, or converts two-and-a-half (2.5) acres or more of native vegetation to pasture shall comply with minimum requirements No. 1 through No. 10 for the new impervious and converted pervious surfaces.

d. An off-site analysis as described in the Stormwater Manual, unless exempted by Section 40.385.010(C)(4).

e. The county may allow the minimum requirements to be met for an equivalent (flow and pollution characteristics) area within the same site. For public road projects, the equivalent area does not have to be within the same project limits but must drain to the same receiving water. For frontage

improvements required within the public right-of-way, the equivalent area must be immediately adjacent to the site.

5. All rural new development and redevelopment shall comply with the following:

a. Minimum requirement No. 2 and Section 40.385.030.

b. New development and redevelopment that adds or replaces impervious area of greater than two thousand (2,000) square feet and less than five percent (5%) of a site, or is a land-disturbing activity greater than seven thousand (7,000) square feet, are subject to the minimum requirements dependent on site-specific characteristics.

(1) Minimum requirements No. 1 through No. 5 shall apply if the project meets all of the following criteria:

(a) Is outside of habitat or wetland areas or their buffers; and

(b) Does not generate runoff in channelized flow or discharge directly or indirectly to the county's storm sewer system; and

(c) Is not located in, and does not discharge onto, steep slope hazard areas or landslide hazard areas as designated in Section 40.430.010.

(2) Projects not meeting all the criteria in Section 40.385.020(A)(5)(b)(1) shall be subject to minimum requirements No. 1 through No. 10.

c. New development and redevelopment that adds impervious area of greater than two thousand (2,000) square feet and that is more than five percent (5%) of a site shall comply with minimum requirements No. 1 through No. 10 for the new impervious surface.

d. An off-site analysis as described in the Stormwater Manual, unless exempted by Section 40.385.010(C)(4).

e. The county may allow the minimum requirements to be met for an equivalent (flow and pollution characteristics) area within the same site. For public road projects, the equivalent area does not have to be within the same project limits but must drain to the same receiving water. For frontage improvements required within the public right-of-way, the equivalent area must be immediately adjacent to the site.

6. In addition, all redevelopment shall comply with the following:

a. Road-related projects that create or add five thousand (5,000) square feet or more of new impervious surface and the new impervious surface totals fifty percent (50%) or more of the existing impervious surface within the project limits, shall comply with minimum requirements No. 1 through No. 10 for new and replaced impervious surfaces. The project limits shall be defined by the physical length of the project and the width of the right-of-way.

b. Nonroad-related projects where the valuation of the proposed improvements exceeds fifty percent (50%) or more of the existing site tax assessment valuation of the existing site improvements, and the total of new plus replaced impervious surface is either five thousand (5,000) square feet or more in the urban area or five percent (5%) or more of the site in the rural area, shall comply with minimum requirements No. 1 through No. 10 for new and replaced impervious surfaces.

7. Drainage Structure Labeling and Signage. All catch basins and manholes capable of accepting stormwater shall be signed or stenciled in accordance with the Stormwater Manual.

8. Basin Plans.

a. Basin plans as addressed in minimum requirement No. 9 are strategies designed to protect and enhance surface and groundwater within a watershed.

b. A plan shall include but not be limited to recommendations for:

(1) Stormwater requirements for new development and redevelopment;

(2) Capital improvement projects;

(3) Land use management through identification and protection of critical areas, comprehensive land use and transportation plans, zoning regulations, site development standards, and conservation areas;

(4) Source control activities, to include public education and involvement, and business programs;

(5) Other targeted stormwater programs and activities, such as maintenance, inspections, and enforcement;

(6) Monitoring; and

(7) An implementation schedule and funding strategy.

c. To be valid, a basin plan must:

(1) Be stamped, signed and dated by a registered professional engineer licensed in the state of Washington;

(2) Be adopted by the board;

(3) Meet the requirements of Chapter 36.94 RCW and the SMMWW;

(4) Be formally adopted by all jurisdictions with responsibilities under the plan; and

(5) Be approved by the Department of Ecology.

In addition, all ordinances or regulations called for by the plan must be in effect.

d. The policies and standards in an adopted basin plan shall supersede the requirements of this chapter.

9. Regional Stormwater Facilities.

a. The county encourages the use of regional stormwater facilities.

b. If regional stormwater facilities are used to meet some or all of the requirements of this chapter, the following conditions shall be met:

(1) Stormwater runoff shall be transported from a project site to a regional stormwater facility through a pipe or manmade open channel conveyance system.

(2) If the regional stormwater facility does not yet exist, interim quantity control and treatment methods shall be used to meet the requirements of this chapter. All interim methods shall be approved in writing by the responsible official.

(3) The facility must have sufficient capacity to provide the treatment and quantity control specified in this chapter at the time of connection.

(4) A written commitment from the owner of the facility, or the responsible official in the case of county-owned facilities, shall be provided that allows use of the facility by the applicant.

c. Where a stormwater utility exists, a system development charge can be assessed for use of a regional stormwater facility.

10. Wetland Protection. If the county determines based on information in the preliminary stormwater plan, or information submitted for wetland review per Chapter 40.450, that the proposed project will degrade wetland function, then the applicant shall implement flow control or other measures to mitigate the adverse impacts of this alteration in accordance with the wetland hydrology protection guidelines in Volume I, Appendix 1-D of the SMMWW.

11. Off-site Analysis. If the county determines based on information in the preliminary stormwater plan that the proposed project will adversely impact off-site drainage systems, then the applicant shall implement additional flow control or other measures to mitigate those adverse impacts.

(Amended: Ord. 2009-12-01)

B. Water Quality Treatment.

1. General Standards.

a. If project site conditions are appropriate and groundwater quality will not be impaired, infiltration is the preferred BMP. Direct discharge of untreated stormwater to groundwater is prohibited. All discharges to groundwater shall comply with the Water Pollution Control Act (Chapter 90.48 RCW), the Water Resources Act (Chapter 90.54 RCW), and Water Quality Standards for Ground Waters of the State of Washington (Chapter 173-200 WAC). Infiltration may be limited near public water supply wells.

b. Runoff treatment facilities shall be selected pursuant to Volume V, Chapter 2 of the SMMWW.

c. The stormwater treatment facilities shall be sized for the entire flow directed to them.

d. The following water quality management plans and local ordinances/regulations have been identified pursuant to Volume V, Chapter 2 of the SMMWW as having specific requirements for receiving waters:

(1) Total maximum daily load plans for Gibbons Creek and Salmon Creek; and

(2) Lake management plans for Lacamas and Round Lakes.

2. Phosphorus treatment is required in the Lacamas watershed above the dam at the south end of Round Lake for all project sites exceeding one (1) acre in size.

3. Experimental BMPs shall follow the guidelines for emerging technologies Volume V, Chapter 12 of the SMMWW.

4. Stormwater treatment facilities shall be maintained in accordance with the latest version of the Stormwater Facility Maintenance Manual.

5. Hydrologic analysis for runoff treatment design shall be in accordance with Volume III and Volume V, Chapter 4 of the SMMWW, with the following exceptions:

a. Table III-2.1, Hydrologic Soil Groups for Selected Soils in Washington State, is replaced by:

(1) The Soil Conservation Service Clark County Soil Survey published in 1972 and updated by the Natural Resources Conservation Service (NRCS);

(2) GIS soil maps of Clark County; or

(3) Washington Soil Survey data as available on the NRCS website.

In the case of conflicts, the more stringent soil group shall apply unless site-specific hydrological soil groups are developed by a registered soil scientist using criteria in the NRCS National Soils Handbook.

b. Appendix III-A, Isopluvial Maps for Design Storms, is replaced by Isopluvial Maps for Design Storms in Clark County.

C. Quantity Control.

1. General Standards.

a. No new development or redevelopment shall be allowed to materially increase or concentrate stormwater runoff onto an adjacent property or block existing drainage from adjacent lots.

b. All lots must be designed to provide positive drainage from the bottom of footings to an approved stormwater facility, unless a geotechnical report has been prepared stating that a footing drain is not required.

c. Detention facilities shall be functional prior to completion of site improvements (e.g., impervious surfaces). If permanent infiltration ponds are used for flow control during construction, these facilities shall be protected from siltation during the construction phase in accordance to the project SWPPP, including but not limited to temporary sedimentation ponds.

d. In addition to the requirements of Chapter 40.420, no reduction of existing conveyance capacity and no net loss of existing storage capacity for the one hundred (100) year storm is permitted in special flood hazard areas as defined in Section 40.420.010(C). This requirement shall also apply to all areas within the limits of the existing one hundred (100) year floodplain for all streams and manmade channels within the county.

2. Pre-development Land Cover Requirements.

a. The pre-developed condition to be matched shall be historic, forested land cover unless reasonable, historic information is provided that indicates the site was prairie prior to settlement.

b. Where an approved basin plan exists, the land cover condition to be matched shall be commensurate with achieving a target flow regime identified in the study. If no land cover condition or target flow regime is identified, land cover condition to be matched shall be as required above.

c. This requirement is not applicable to project sites designed to retain all stormwater runoff on site.

3. Design Methodology for Stormwater Infiltration Systems.

a. The design of stormwater infiltration facilities shall follow the requirements in Volume III, Section 3.3 of the SMMWW and the Stormwater Manual, except as revised herein, and the Washington Department of Ecology Guidance for UIC Wells that Manage Stormwater. If a facility meets any part of the UIC definition in Section 40.385.010(D), the developer must register the UIC and provide proof of registration to the county prior to use.

b. The design shall follow the methodology in either the simplified or detailed approaches in Volume III, Section 3 of the SMMWW, except that the infiltration testing shall only be conducted using the methods described in the Stormwater Manual.

c. Infiltration receptor characterization shall include the installation of groundwater monitoring wells unless the highest groundwater level is demonstrated to be at least fifteen (15) feet below the proposed infiltration facility. These wells shall be installed and monitored during at least one (1) wet season within three (3) years prior to the date of final approval.

d. Test locations for performing infiltration tests as called for in the simplified method shall be performed as follows:

(1) One (1) or more infiltration tests shall be conducted at the location of each proposed infiltration facility; and

(2) At least one (1) test shall be conducted for each location where the soil characteristics significantly vary within the vicinity of proposed infiltration facilities.

e. Allowable methods for determining infiltration rates as called for in the simplified method (Section 3.3.4 of the SMMWW) are as follows:

(1) The single-ring falling head test as described in the Stormwater Manual; or

(2) A pilot infiltration test (PIT) conducted pursuant to Appendix III-D, Volume III of the SMMWW.

f. Groundwater. The base of all infiltration basins or trench systems shall be greater than five (5) feet above the seasonal high-water mark, bedrock (or hardpan) or other low permeability layer. A separation down to three (3) feet may be considered if the groundwater mounding analysis, volumetric receptor capacity, and the design of the overflow and/or bypass structures are judged by the county to be adequate to prevent overtopping and meet the site suitability criteria specified in the SMMWW.

g. Stormwater Infiltration Facility Setbacks.

(1) Stormwater infiltration facilities shall be set back according to Table 40.385.020-1.

Table 40.385.020-1. Stormwater Infiltration Facility Setbacks

Stormwater infiltration facility set back from:	Distance:
Drinking water wells1	One hundred (100) feet minimum
Building foundations	Twenty (20) feet minimum, upslope One hundred (100) feet minimum, downslope
Slopes equal to or greater than fifteen percent (15%)2	Fifty (50) feet minimum
Roof downspout infiltration systems	Ten (10) feet minimum from any structure or property line

1 Infiltration facilities upslope of drinking water supplies and within the one (1), five (5), and ten (10) year time of travel zones must comply with Chapter 40.410.

2 See Chapter 40.430 for steep slope and landslide hazard area setbacks.

(2) Setbacks may be reduced if a geotechnical report addresses potential impacts of trench phreatic surface on structures within twenty (20) feet of the proposed facility.

h. No permanent infiltration systems shall be allowed into service until:

(1) The entire contributing drainage area has received final stabilization; and

(2) Permanent water quality BMPs are in place and have been approved by the county.

i. Before acceptance of any infiltration facility by the county, the completed facility must be tested and monitored to demonstrate that the facility performs as designed. If the tested coefficient of permeability determined at the time of construction is at least ninety-five percent (95%) of the uncorrected coefficient of permeability used to determine the design rate, construction shall be allowed

to proceed. If the tested rate does not meet this requirement, the applicant shall submit an additional testing plan to Clark County that follows the requirements in Chapter 2 of the Stormwater Manual. This plan shall address steps to correct the problem, including additional testing and/or resizing of the facility to ensure that the system complies with the provisions of this chapter.

j. A groundwater mounding analysis shall be conducted at all sites where the depth to seasonal groundwater table or low permeability stratum is less than five (5) feet or where the depth to seasonal groundwater table or low permeability stratum is less than fifteen (15) feet and the runoff to the infiltration facility is from more than one (1) acre of effective impervious surface. Groundwater modeling (mounding analysis) of the proposed infiltration facility shall be done using the design infiltration rate and the estimated maximum groundwater elevation determined for the proposed facility location.

(Amended: Ord. 2013-06-16; Ord. 2013-08-01)

D. Stormwater Facilities.

1. General.

a. Stormwater facilities shall be located in accordance with the county's critical areas ordinances, Chapters 40.410 through 40.450.

b. Stormwater facilities, other than closed conveyance systems, shall be located in relation to existing and proposed on-site sewage system drainfields as follows:

(1) At least thirty (30) feet when downslope from the drainfield system.

(2) At least ten (10) feet when upslope from the drainfield system.

(3) At least one hundred (100) feet for infiltration and dispersion systems. This distance can be reduced upon submittal of a report prepared by a registered geotechnical engineer licensed in the state of Washington that provides evidence that neither system will be compromised by a closer proximity. All applicable state and federal regulations must still be followed.

c. Stormwater facilities, other than underground closed systems, shall be located outside easements and corridors used by phone, electric, water, natural gas, and other utilities unless the utilities are installed prior to construction of the facility.

d. Sites used for stormwater facilities shall be owned by the applicant, county, or state.

(1) If the county or state owns the site, a letter from the responsible agency allowing use of the site for stormwater control shall be submitted with the preliminary stormwater plan.

(2) If the county or state does not own the site, the ownership shall be included for consideration with the land use application for the development.

e. Stormwater facilities other than underground closed systems in urban residential subdivisions and short plats shall be located on separate tracts which are recommended, but not required, to meet

minimum zoning lot size requirements. The plat or other dedication instrument shall indicate tract disposition in the event of county abandonment or vacation.

2. Side Slopes. Side slopes of stormwater facilities shall be according to Table 40.385.020-2 and Section 40.385.020(D)(3).

Table 40.385.020-2. Stormwater Facility Side Slopes

All facilities with slopes flatter than or equal to three to one (3:1)	Allowed.
All facilities with slopes flatter than or equal to two to one (2:1)	Allowed, if: • Side slopes don't need mowing; and • Erosion control and slope stability are provided.
Public facilities, vertical slopes	Allowed, if: • Perimeter has less than or equal to seventy-five percent (75%) vertical slopes; • Vertical slopes more than two (2) feet tall are fenced; • Maintenance access is adequate; and • Side slopes in a biofiltration treatment area are three to one (3:1) or flatter.
Private facilities, slopes steeper than three to one (3:1)	Allowed if: • Perimeter has less than or equal to seventy-five percent (75%) vertical slopes; • Vertical slopes more than two (2) feet tall are fenced; • Long-term erosion control is provided; • Side slopes in a biofiltration treatment area are three to one (3:1) or flatter; and • It is demonstrated that the facility can be adequately maintained.

3. Fencing.

a. Public stormwater treatment and runoff control facilities shall be fenced in accordance with Volume III of the SMMWW.

b. Fences are not required for private stormwater facilities, provided a hold-harmless agreement is provided to the county.

c. If the facility is not enclosed by a fence, the covers for all control structures, manholes, and catch basins shall be bolted in place.

d. A gate or lockable bollards shall be provided across any access road.

e. Wood board fences are not allowed.

E. Maintenance and Ownership.

1. County Ownership of Stormwater Facilities. County ownership of stormwater facilities is required for all such facilities that are to be located within a public right-of-way or for which arrangements for private long-term maintenance which are acceptable to the responsible official have not been made.

2. Acceptance of Ownership by the County.

a. Stormwater facilities that are to be owned by the county will be provisionally accepted for ownership upon the approval of the record drawings and approval of an inspection of the facilities by the county. Provisional acceptance of the facilities shall not relieve the applicant from any obligation to undertake any remedial measures to correct deficiencies in the design, construction, maintenance or operation of the facilities.

b. No sooner than eighteen (18) months following the provisional acceptance of the facilities, the applicant shall notify the responsible official that the facilities are eligible for final acceptance of ownership by the county. Prior to their final acceptance for ownership, the facilities shall be inspected to determine that they are properly maintained and in satisfactory condition. The responsible official shall require the applicant to conduct tests of the facilities to reasonably demonstrate that they are operating as designed and to the county standards for quality and quantity control as a condition of final acceptance. Upon approval of the facilities by the responsible official and all necessary ownerships and easements entitling the county to properly access and maintain the facilities have been conveyed to the county and recorded with the County Auditor, they will be finally accepted for ownership by the county.

3. Maintenance of Stormwater Facilities.

a. County-Owned Facilities.

(1) For a period of at least two (2) years following the provisional acceptance of stormwater facilities or thereafter until the facilities are finally accepted by the county, the developer constructing the facilities shall maintain, repair, redesign, or reconstruct the facilities to ensure that they operate as designed and to the county standards for quality and quantity control. This obligation shall extend to remedying any damage caused to the facilities by builders or other third parties during the initial maintenance period. The required maintenance shall be performed according to the county's Stormwater Facility Maintenance Manual pursuant to Section 13.26A.040.

(2) During the initial maintenance period, remedial work to correct deficiencies shall be the responsibility of the developer and shall be completed prior to final acceptance. Required remedial work to correct maintenance and construction deficiencies shall be completed by the applicant prior to final acceptance.

(3) Following final acceptance for county ownership, the county shall maintain stormwater facilities.

b. Privately Owned Facilities.

(1) For stormwater facilities for which the county will not provide maintenance, the developer shall make arrangements with the existing or future (as appropriate) occupants or owners of the subject property for assumption of maintenance to the standards in the county's Stormwater Facility Maintenance Manual pursuant to Section 13.26A.040. The responsible official shall approve such arrangements prior to county approval of the final stormwater plan. Final plats shall include a note specifying the party(ies) responsible for long-term maintenance of stormwater facilities.

(2) The county shall inspect privately maintained facilities for compliance with the requirements of this chapter. If the parties responsible for long-term maintenance fail to maintain their facilities to acceptable standards, the county shall issue a written notice specifying required actions to be taken in order to bring the facilities into compliance. If these actions are not performed in a timely manner, the county shall take enforcement action and recover from parties responsible for the maintenance in accordance with Section 32.04.060.

(3) Easements or a covenant acceptable to the responsible official shall be provided to the county for purposes of inspection and maintenance of all privately maintained facilities. The minimum dimensions of easements are listed in the Stormwater Manual, and shall allow for access to all areas within the pond and drainage structures by standard maintenance equipment vehicles.

4. Recovering Costs of Stormwater Facilities.

a. The following costs associated with stormwater facilities may be recoverable through latecomers' agreements (RCW 35.91.010):

(1) Over-sizing on-site facilities above their existing capacity or the capacity required for the proposed development; and

(2) A proportionate share of the total cost of off-site facilities.

b. If a stormwater utility exists, the costs for building or over-sizing a stormwater facility may be eligible as a credit against applicable system development charges.

5. Bonds and Insurance.

a. Performance Security. In lieu of completing required stormwater facilities within a preliminary plat prior to recording, the applicant may, with the approval of the county, post a performance bond or other security acceptable to the responsible official in the amount of one hundred fifty percent (150%) of the estimated cost (prepared by the project engineer) of completing construction per the approved stormwater plan. After determination by the responsible official that all facilities are constructed in compliance with the approved plan, are performing their intended functions in a satisfactory manner, and that the maintenance bonding requirements of Section 40.385.020(E)(3) are met, the performance bond or security shall be released. No building permits shall be issued until the stormwater facilities are completed and provisionally accepted.

b. Maintenance Security. In cases identified in Section 40.385.020(E)(3), a maintenance bond or other security acceptable to the responsible official, in the amount of ten percent (10%) of the project

engineer's construction cost, shall be posted and maintained throughout the two (2) year initial maintenance period for a stormwater facility.

(Amended: Ord. 2009-01-01)
40.385.030 Standards – Erosion Control
A. General Standards.

1. Contractor Certification. All land-disturbing activity performed by licensed contractors shall be supervised by an individual who shall have successfully completed formal training in erosion and sediment control during construction by a recognized organization acceptable to the responsible official. A certification of successful completion of such training shall be submitted at the pre-construction conference.

2. Permanent infiltration BMPs shall not be used as temporary erosion control devices.

3. Vehicles not performing a construction activity shall not be permitted off-street. Worker personal vehicles shall be parked on adjacent streets or other approved areas.

B. Underground Utility Construction. The construction of underground utility lines shall be subject to the following:

1. An erosion control plan specifically related to underground work shall be submitted and approved prior to beginning work.

2. BMPs shall be used to control erosion during and after construction.

3. BMPs damaged during construction shall be replaced or repaired.

C. Signage.

1. Erosion control signage approved by the responsible official shall be installed at each point of entry for any subdivision or short plat prior to issuance of provisional acceptance by the county. Signs may be purchased from the county.

2. Removal of signage shall occur when either certificates of occupancy have been issued for seventy percent (70%) of the lots or there are less than ten (10) unoccupied lots remaining within the project site, whichever is later, or as determined by the responsible official.

(Amended: Ord. 2009-01-01)
40.385.040 Administration
A. Submittals – General.

1. A stormwater plan shall be submitted identifying how stormwater runoff originating on the project site or flowing through the project site is presently controlled and how this will change due to the proposed development, redevelopment, or drainage project. The purpose of the stormwater plan is to determine whether a proposal can meet the requirements set forth in this chapter.

2. Applicants proposing any new development or redevelopment governed by this chapter shall submit the plans, studies, and information as provided herein. If the project site is within the region covered by a basin plan pursuant to this chapter, then the responsible official may waive information requirements.

3. Except for projects under Section 40.385.040(A)(3)(a), all plans, studies, and reports shall be stamped, signed and dated by a registered professional civil engineer(s) licensed in the state of Washington, and a registered soil scientist, if appropriate, responsible for their preparation, and by the project engineer responsible for preparation of the stormwater plan.

a. Stormwater site plans are exempt from the requirement to be prepared by a licensed engineer for projects that only apply minimum requirements No. 1 through No. 5 for construction of agricultural or residential buildings and their appurtenances on an existing lot.

4. Record Drawings.

a. Record drawings which accurately represent the project site as constructed shall be provided to the county prior to:

(1) The issuance of building permits for single-family/duplex residential subdivisions;

(2) The issuance of occupancy permits for development subject to site plan review; and

(3) Within sixty (60) days following completion of construction of other development.

b. The record drawings shall include corrected engineering plans for the stormwater system, showing constructed dimensions and elevations. In addition, revisions to the final stormwater plan shall be submitted with the record drawings where changes during construction significantly alter the calculations and assumptions contained in the plan.

c. All plans submitted shall be reproducible and on Mylar.

d. The record drawing submittal shall be stamped, signed and dated by a registered professional engineer licensed in the state of Washington.

e. Record drawings shall be submitted on computer disk in one (1) of the following approved file formats: Portable Document Format (.pdf), AutoCAD (.dwg, .dxf), or MicroStation (.dgn).

f. Record drawings shall clearly indicate the ownership of any stormwater facility and who is responsible for its maintenance.

(Amended: Ord. 2009-12-01)

B. Preliminary Stormwater Plan.

1. A preliminary stormwater plan is required for all new development and redevelopment not exempted by Section 40.385.010(C).

2. A preliminary stormwater plan meeting the requirements of this section shall be submitted with the land use application.

3. The preliminary stormwater plan submittal shall consist of a preliminary development plan and a preliminary technical information report (TIR) prepared in accordance with the Stormwater Manual. The project engineer shall include a statement that all required information is included and that the proposed stormwater facilities are feasible.

C. Final Stormwater Plan.

1. The final stormwater plan is required and must be approved by the responsible official prior to beginning construction related to new development, redevelopment, or drainage project. The final stormwater plan provides final engineering design and construction drawings in accordance with the Stormwater Manual.

2. The final stormwater plan shall include the following:

a. A final development plan;

b. A final technical report (TIR);

c. The approved preliminary stormwater plan with an explanation of any differences between the design concepts included in the preliminary and final stormwater plans;

d. Final engineering plans that provide sufficient detail to allow construction of the stormwater facilities. These plans shall be stamped, signed and dated by registered professional engineer(s) licensed in the state of Washington responsible for hydrologic, hydraulic, geotechnical, and structural and general civil engineering design, and by the project engineer responsible for the preparation of the final stormwater plan. Additionally, the final engineering plan shall show all utilities to ensure conflicts between proposed utility lines do not exist;

e. Any easements, covenants or agreements that are necessary to permit construction must be included; and

f. A construction stormwater pollution prevention plan (SWPPP).

3. The final stormwater plan shall be prepared in accordance with the Stormwater Manual.

D. Construction Stormwater Pollution Prevention Plan. A construction stormwater pollution prevention plan (SWPPP) prepared in accordance with Volume II, Section 3.3 of the SMMWW is required for all development and redevelopment not exempted by Section 40.385.010(C).

E. Plan Review.

1. For a land use application requiring a public hearing, the preliminary stormwater plan shall be decided on in accordance with the procedures applicable to the land use application. All other preliminary stormwater plans shall be acted on by the responsible official within the timeline for the preliminary land use decision.

2. The responsible official may waive in writing some or all of the content requirements in the preliminary stormwater plan if:

a. The development activity or drainage project is included in an approved final stormwater plan which meets the requirements of this chapter; or

b. A basin plan exists that supersedes any of the requirements.

The waiver of some or all of the preliminary stormwater control plan requirements does not relieve the applicant of a final stormwater control plan.

3. Variances. For purposes of this chapter, the following requirements shall apply with regard to variances:

a. Type I and Type II (Administrative) Variances. The responsible official may grant an administrative variance to the numerical standards of this chapter using a Type I or Type II process pursuant to Sections 40.510.010 and 40.510.020 prior to permit approval and construction; provided, that the provisions of this chapter are met. These variances deal with the design and construction of facilities, are not limited to any percentage change, and typically include (but are not limited to) the following:

(1) Conveyance system analysis and design;

(2) Off-site analysis;

(3) Materials;

(4) Facility side slopes;

(5) Easements;

(6) Percent of facility made up of retaining wall;

(7) Fencing requirements; and

(8) Varying from the standard details.

b. Type III Variances. The responsible official may grant a variance from the requirements of this chapter using a Type III process pursuant to Section 40.510.030 prior to permit approval and construction; provided, that the provisions of this chapter are met. A written finding of fact is required that addresses the following:

(1) The variance provides for equivalent environmental protection and is in the overriding public interest; and that the objectives of safety, function, environmental protection and facility maintenance, based upon sound engineering, are fully met;

(2) That there are special physical circumstances or conditions affecting the property such that the strict application of these provisions would deprive the developer of all reasonable use of the property

of land in question, and all feasible efforts to meet the intent of the requirements have been made, including:

(a) The current (pre-project) use of the site;

(b) How the application of the minimum requirements restricts the proposed use of the site compared to the restrictions that existed prior to the adoption of the minimum requirements;

(c) The possible remaining uses of the site if the variance were not granted;

(d) The uses of the site that would have been allowed prior to the adoption of the minimum requirements;

(e) A comparison of the estimated percentage of value loss as a result of the minimum requirements versus the estimated amount and percentage of value loss of requirements that existed prior to adoption of the minimum requirements; and

(f) The feasibility for the owner to alter the project to comply with the minimum requirements.

(3) That the granting of the variance will not be detrimental to the public health and welfare, nor injurious to other properties in the vicinity and/or downstream, and to the quality of waters of the state; and

(4) The variance is the least possible variance that could be granted to comply with the intent of this section.

4. Exceptions for Single-Family/Duplex Residential Subdivisions.

a. The responsible official may approve the issuance of building permits for up to fifty percent (50%) of the lots after the stormwater and road improvements are substantially complete.

b. Building permits for model homes may be approved pursuant to Section 40.260.175.

5. Stormwater plans decisions may be appealed in conjunction with the associated land use application.

(Amended: Ord. 2009-01-01; Ord. 2011-08-08)