

Key Provisions of King County Code 9.04

9.04.010 Purpose

The purpose of this chapter is to address how stormwater runoff and erosion control is managed.

9.04.030 Drainage Review

This section describes when, and what type of, drainage review is required and references the “[Surface Water Design Manual](#)” or SWDM. The SWDM is a very detailed manual describing the surface and stormwater design and analysis requirements for developing or redeveloping land in unincorporated King County.

9.04.050 Drainage Review Requirements

This section contains both core and special requirements that must be met when a drainage review is required.

Core requirement 1: Discharge at the natural location – *This requirement prevents adverse impacts to downstream properties caused by flow diversion from one flowpath to another, and ensures that stormwater is discharged in a way that minimizes impacts to downhill properties or drainage systems. Stormwater diversions can cause greater impacts (from greater runoff volumes) than would normally occur from new development discharging runoff at the natural location. Stormwater diversions can also impact properties that rely on runoff water to replenish wells and ornamental or fish ponds.*

Core requirement 2: Offsite analysis – *This requirement ensures identification and evaluation of offsite flooding, erosion, and water quality problems that may be created or aggravated by the proposed project, and ensures appropriate prevention measures are taken. It is also intended to ensure identified impacts associated with the quantity and quality of surface and storm water runoff from the **project site** are mitigated (e.g., impacts to the hydrology of a wetland identified in a "critical area report" per KCC 21A.24.110).*

Core requirement 3: Flow control facilities – *This requirement ensures implementation of the minimum level of control that is needed to protect downstream properties and resources from increases in peak, duration, and volume of runoff generated by new development. The level of control varies depending on location and downstream conditions identified under Core Requirement #2.*

Core requirement 4: Conveyance system – *This requirement ensures correct design and construction of engineered conveyance system elements, such as pipes, culverts, and ditches or channels. Conveyance systems include natural and engineered drainage facilities that collect and move surface water or stormwater runoff.*

Core requirement 5: Construction stormwater pollution prevention – *This requirement prevents adverse impacts that can result from the transport of sediment and increased runoff, related to land disturbing activities. Erosion on construction sites can result in excessive sediment being moved to adjacent properties and surface waters. Excessive sediment and increased runoff can result in adverse impacts, such as flooding caused by obstructed drainage ways, salmonid spawning beds being smothered, algal blooms in lakes, and state water quality standards for turbidity being exceeded.*

Core requirement 6: Maintenance and operations – This requirement ensures that the maintenance responsibility for drainage facilities is clearly assigned and that these facilities will be properly maintained and operated in perpetuity.

Core requirement 7: Financial guarantees and liability – This requirement ensures that financial guarantees are posted to sufficiently cover the cost of correcting, if necessary, incomplete or substandard drainage facility construction work, and to warrant for two years the satisfactory performance and maintenance of those newly-constructed drainage facilities to be assumed by King County for maintenance and operation. Core Requirement 7 is also intended to ensure that a liability policy is provided that protects the proponent and King County from any damages relating to the construction or maintenance of required drainage facilities by private parties.

Core requirement 8: Water quality facilities – This requirement ensures implementation of an efficient, cost-effective level of water quality treatment that is tailored to the sensitivities and resource protection needs of the downstream receiving water of the **project site**, or, in the case of infiltration, the receiving groundwater system.

Core requirement 9: Flow control best management practices (BMPs) – This requirement is to provide flow control best management practices to mitigate hydrologic impacts that are not possible/practical to mitigate with a flow control facility, such as, increased runoff volumes and flashiness and decreases in groundwater recharge. Increased runoff volume and flashiness leads to higher and more variable stream velocities at low flows and more frequent water level fluctuations in streams and wetlands. This causes wash-out and stranding of aquatic species, algal scour and washout of organic matter, loss of vegetation diversity and habitat quality, and disruption of spawning, egg hatching, and migration. Decreased groundwater recharge reduces water supply for human use and summer base flows in streams, which is critical to water temperature, salmonid use of smaller streams, and the habitat quality of mainstem side channels and wetlands used for spawning, rearing, and flood refuge. Flow control BMPs include reducing impervious surfaces, preserving vegetation, and making use of the pervious portions of **development sites** to maximize infiltration and retention of stormwater.

Special Requirement 1: Other adopted area-specific requirements – Projects must comply with any additional drainage requirements for adopted critical drainage areas, master drainage plans, basin plans, salmon conservation plans, stormwater compliance plans, flood hazard management plans, lake management plans or shared facility plans.

Special Requirement 2: Flood Hazard Area Delineation – Projects that contain, or are adjacent to, a flood hazard area for a river, stream, lake, wetland, closed depression, marine shoreline or a mapped channel migration zone must determine the 100-year floodplain and applicable floodway boundaries, along with boundaries of channel migration hazard areas, where applicable. This information needs to be on site improvement plans and profiles and final subdivision maps. Floodplains are subject to inundation during extreme events. The 100-year floodplain, and floodway if applicable, is delineated in order to minimize flooding impacts to new development and to prevent aggravation of existing flooding problems by new development.

Special Requirement 3: Flood Protection Facilities – Flood protection facilities must be analyzed, designed, and constructed according to all applicable regulations and standards to ensure high confidence in structural integrity and performance.

Special Requirement 4: Source Controls – Source control measures that prevent rainfall and runoff water from coming into contact with pollutants must be applied to commercial site developments per King County’s Stormwater Pollution Prevention Manual and King County Code 9.12.

Special Requirement 5: Oil Control – Projects proposing to develop or redevelop a high-use site must provide oil controls in addition to any other water quality controls required by the [King County SWDM](#). Such sites typically generate high concentrations of oil due to high traffic turnover, on-site vehicle or heavy or stationary equipment use, and some business operations such as automotive recycling, or the frequent transfer of liquid petroleum or coal derivative products.

9.04.060 Critical Drainage and/or Erosion Areas

Projects in sensitive areas may have special drainage requirements.

9.04.070 Engineering Plan Standards

Engineering plans that are submitted for review must be in accordance with the [SWDM](#).

9.04.090 Construction Timing and Final Approval

Projects must have their erosion control measures in place before any grading can begin and the development plans are approved.

9.04.095 Vesting for Lots in Short Plats

Development standards for lots in a short plat in case the standards change within five years after recording.

9.04.100 Liability Insurance

Anyone building a drainage facility must have liability insurance that names King County as an additional insured party.

9.04.105 Financial Guarantees

The permittee must post a bond to ensure that the drainage facilities are installed per plan and operating correctly.

9.04.115 Drainage Facilities Accepted by King County for Maintenance

The conditions under which King County may take over the maintenance of private facilities.

9.04.120 Drainage Facilities Not Accepted by King County for Maintenance

An outline of property owner responsibilities for maintenance of facilities not accepted for maintenance by King County.

9.04.130 Hazards

Authorization for King County to notify a property owner to fix a problem that is creating a hazard to life and limb, the environment or to public infrastructure because of problems on a construction site or with drainage facilities. If severe enough, the county can take measures to eliminate the hazard and charge the cost to the property owner or collect on the financial guarantee.

9.04.135 Natural Hazards

Authorization for King County to enter properties and take reasonable steps to stop or lessen the threat of immediate and substantial harm where King County believes a natural hazard exists. King County must

make a reasonable effort to gain permission to access properties and must notify the King County Council in a timely manner after entering a property where unable to obtain permission.

9.04.140 Administration

Authorization for King County to conduct inspections and develop rules and procedures for requirements in this chapter. Permittees are required to provide access to King County to inspect, monitor, or perform other actions stipulated by this chapter.

9.04.180 Enforcement

Authorization for King County to enforce the provisions of this chapter.

9.04.194 Implementation, Review and Revision

King County is required to have a training program on the [SWDM](#) and conduct on-going research to determine if the requirements in this code section are meeting their intended purpose.

Key Provisions of King County Code 9.12

9.12.005 Purpose

To protect the county's surface water and groundwater quality by providing minimum requirements for reducing and controlling the discharge of contaminants.

9.12.025 Discharges into King County Waters

A listing of types of discharges that can and cannot be discharged into a stormwater conveyance system, surface water, stormwater or groundwater; and a listing of; business and residential activities that require application of best management practices.

9.12.035 Stormwater Pollution Prevention Manual

Explains that businesses and residents must prevent the contamination of stormwater, surface water and ground water, by using what is termed "best management practices" (BMPs). These practices are described in the Stormwater Pollution Prevention Manual. Examples of BMPs include sweeping up debris instead of hosing it into the stormdrain and storing oily materials and batteries inside or undercover.

9.12.050 Enforcement

Authorization for King County to take enforcement actions; and direction that education and technical assistance be used initially as much as possible to gain compliance.

9.12.080 Corrective Actions, Compliance, Civil Penalties, Liability

Enforcement actions that King County is authorized to take and the criteria for determining the amount of civil penalties that may be imposed.