



SNOHOMISH COUNTY COUNCIL  
AMENDED  
ORDINANCE NO. 90-069

SNOHOMISH COUNTY CODE  
REPEALING TITLE 24, "DRAINAGE"  
AND ADOPTING NEW  
TITLE 24, "GRADING AND DRAINAGE ORDINANCE"

BE IT ORDAINED:

Section 1. Snohomish County Code Title 24, "Drainage", adopted by ordinance on January 12, 1979 is repealed in its entirety.

Section 2. A new title, Title 24, "Grading and Drainage", is hereby added to the Snohomish County Code as follows:

TITLE 24

GRADING AND DRAINAGE

Chapters:

- 24.05 General provisions.
- 24.10 Definitions.
- 24.15 Rules and regulations.
- 24.20 Grading.
- 24.25 Drainage requirements.
- 24.30 Maintenance of drainage facilities.
- 24.35 Fees and bonds.
- 24.40 Wetland, lake and stream identification.
- 24.45 Appeals.
- 24.50 Enforcement.

Chapter 24.05

GENERAL PROVISIONS

Sections:

- 24.05.010 Title.
- 24.05.020 Declaration of purpose.
- 24.05.030 Applicability.
- 24.05.040 Administrative procedures.
- 24.05.050 Inspections.
- 24.05.060 Liability.
- 24.05.070 Hazards.
- 24.05.080 Severability.

24.05.010 Title. This title constitutes and may be cited as Title 24 SCC, Grading and Drainage. This title supersedes previous Title 24 SCC, Drainage, and previous Title 17 SCC, Building, sections 17.04.280, 17.04.290, 17.04.400, 17.04.310, 17.04.320 and 17.04.330.

24.05.020 Declaration of purpose. It is the purpose of this title to regulate grading and drainage activities in order to promote sound practical and economical development policies and construction procedures which minimize impacts to the county's waters; to minimize water quality degradation and control the sedimentation of streams, rivers, lakes, wetlands and other surface water; to provide for control of stormwater runoff originating on developing land; to preserve the suitability of water for recreation and fishing; to maintain areas of important habitat; to maintain and enhance the aesthetic quality of the waters; to minimize adverse effects of alterations in surface water or groundwater quality, quantities, locations and flow patterns; to maintain the safety of county roads and rights-of-way; to ensure no net loss of the County's aquatic resources; all to the end of safeguarding the public health, safety and general welfare.

24.05.030 Applicability. The provisions of this title shall apply to all land use activities regulated by Snohomish County, unless specifically exempted by this title.

24.05.040 Administrative procedures. Pursuant to Chapter 2.68 SCC, the Director shall develop procedures for administering the provisions of this title.

24.05.050 Inspections. The Director is authorized to make inspections and take actions necessary to enforce the provisions of this title and the rules and regulations established hereunder.

24.05.060 Liability.

(1) Administration of this title shall not be construed to create the basis for any liability on the part of the County, its appointed and elected officials, and employees while working within the scope of their duties:

(2) This title is not intended to alter or otherwise affect any federal or state statutory or common law rights, duties, or liabilities which may be imposed upon an applicant in connection with land development activities including, but not limited to, clearing, compaction, excavation, erosion, filling, grading, site alteration, construction, or other activities on land, with respect to such issues as drainage law, water law, surface water or storm water management, water pollution, erosion and sedimentation control law, or other laws. In reviewing approving, inspecting, or enforcing, or otherwise administering this title, the county makes no representations and assumes no liability for compliance with any rights, duties, or liabilities of the applicant and/or property owner under any federal or state statutory or common law doctrine or created by any type of deed, covenant, or restriction on real property.

24.05.070 Hazards. Whenever the Director determines that any conditions or operations caused by any activity regulated by this title have become a hazard to public safety, health and welfare, including, but not limited to, sedimentation or siltation of streams, rivers, lakes, wetlands or surface water, or adversely affect the safety, use or stability of a public way or drainage channel; the Director may take action to abate the hazard pursuant to Title 28 SCC.

24.05.080 Severability. If any provision of this title or its application to any person or circumstance is held to be invalid, such decision shall not affect the validity of the remaining portions of the ordinance or its application to other persons or circumstances.

## Chapter 24.10

### DEFINITIONS

#### Sections:

24.10.010	Activity.
24.10.020	Applicant.
24.10.030	Aquatic systems.
24.10.040	As-graded.
24.10.050	Bench.
24.10.060	Berm.
24.10.070	Bond.
24.10.080	Civil engineer.
24.10.090	Civil engineering.
24.10.100	Clearing.
24.10.110	Compaction.
24.10.120	Critical areas.
24.10.130	Department.
24.10.140	Design storm.
24.10.150	Director.
24.10.160	Drainage basin.
24.10.170	Drainage plan.
24.10.180	Earth material.
24.10.190	Erosion.
24.10.200	Excavation.
24.10.210	Filling.
24.10.220	Geotechnical engineer
24.10.230	Geotechnical engineering.
24.10.240	Grade.
24.10.250	Grading.
24.10.260	Hearing examiner.
24.10.270	Impervious surface areas.
24.10.280	Lake.
24.10.290	Ordinary high water mark.
24.10.300	Peak discharge.
24.10.310	Plans.
24.10.320	Reclamation.
24.10.330	Shorelines.
24.10.340	Site.
24.10.345	Site alteration.
24.10.350	Slope.
24.10.360	Soil.
24.10.370	Specifications.
24.10.380	Stream.
24.10.390	Terrace.
24.10.400	Watershed Management Plan.
24.10.410	Wetlands.
24.10.420	Wetland edge.

Unless the context clearly requires otherwise, the words and phrases used in this title shall be defined as follows:

24.10.010 Activity. "Activity" means any land use action that requires a County permit or approval.

24.10.020 Applicant. "Applicant" means the person, corporation, or other private or governmental entity applying for or granted a land use or development permit or approval by Snohomish County.

24.10.030 Aquatic systems. "Aquatic systems" means streams, wetlands and lakes.

24.10.040 As-graded. "As-graded" means the extent of surface conditions on completion of grading.

24.10.050 Bench. "Bench" means a relatively level step excavated into earth material on which fill is to be placed.

24.10.060 Berm. "Berm" means an earthen mound or raised area used as a physical barrier to impound water or to screen a site .

24.10.070 Bond. "Bond" means a surety bond, assignment of funds, irrevocable letter of credit or other means acceptable to the Director to assure work is completed in accordance with all applicable County requirements.

24.10.080 Civil engineer. "Civil Engineer" means a professional engineer registered in the state of Washington to practice in the field of civil engineering.

24.10.090 Civil engineering. "Civil engineering" means the application of the knowledge of the forces of nature, principles of mechanics and the properties of materials to the evaluation, design and construction of civil works for the beneficial uses of mankind.

24.10.100 Clearing. "Clearing" means the removal or disturbance of vegetative material, stumps, logs, trees, and components thereof within a critical area.

24.10.110 Compaction. "Compaction" means the densification of earth material by mechanical means.

24.10.120 Critical areas. "Critical Areas" means those areas within which stormwater run-off, flooding, erosion, groundwater recharge/discharge and/or instability conditions present special drainage-related problems and are limited to the following:

- (1) Aquatic systems.
- (2) Lands having a slope of 25 percent or greater, and those lands within 50 feet of the top of bank of such slopes.
- (3) Lands within 200 feet of the ordinary high water mark or within the flood plain of any stream or lake.
- (4) Lands within 200 feet of the edge of a wetland; Provided, however, that when the applicant has demonstrated to the satisfaction of the Director that no surface or subsurface drainage relationship exists between the site of a proposed activity and the wetland, the critical areas for Class I, II and III wetlands shall be 150 feet, 75 feet, and 35 feet, respectively.
- (5) Lands encompassing a known slide area as determined by the Director.
- (6) Lands designated as critical areas in adopted County Watershed Management Plans, pursuant to Title 25 SCC.

24.10.130 Department. "Department" means the Department of Planning and Community Development, Community Development Division.

24.10.140 Design storm. "Design storm" means that rainfall event utilized for purposes of designing structures to accommodate the volume and velocity of water resulting from a specific return period storm.

24.10.150 Director. "Director" means the Manager of the Department of Planning and Community Development, Community Development Division or his/her authorized designee.

24.10.160 Drainage basin. "Drainage basin" means the geographic region within which water drains into a particular aquatic system or other body of water. It is also referred to as a watershed or catchment area.

24.10.165 Drainage impacts. "Drainage impacts" means the loss or impairment of existing water quality, water storage, retention and detention capacity, and/or water conveyance ability.

24.10.170 Drainage plan. "Drainage plan" means a plan prepared by, or on behalf of, the applicant which identifies existing drainage conditions at the location of a proposed land use activity and identifies the proposed means of ameliorating anticipated impacts to surface and subsurface water associated with a proposed activity.

24.10.180 Earth material. "Earth material" means any rock, natural soil and/or any combination thereof.

24.10.190 Erosion. "Erosion" means the wearing away of the ground surface as a result of the movement of wind, water and/or ice.

24.10.200 Excavation. "Excavation" means the mechanical removal of earth material from its place of origin.

24.10.210 Filling. "Filling" means any act by which earth material or other material is deposited, placed, pushed, pulled or transported to a place other than the place from which it originated.

24.10.220 Geotechnical engineer. "Geotechnical engineer" means a licensed civil engineer experienced and knowledgeable in the practice of soils, geology or geotechnical engineering.

24.10.230 Geotechnical engineering. "Geotechnical engineering" means the application of geologic knowledge and principles in the investigation and evaluation of naturally occurring rock and soil for use in the design of civil works. "Geotechnical engineering" also means the application of soils mechanics in the investigation, evaluation and design of civil works involving the use of earth materials and the inspection and/or testing thereof.

24.10.240 Grade. "Grade" means the vertical location of the ground surface. "Existing grade" is the grade prior to grading. "Rough grade" is the preliminary stage at which the grade approximately conforms to the approved plan. "Finish grade" is the stage at which the grade conforms to the approved plan.

24.10.250 Grading. "Grading" means any excavation, or filling, or combination thereof. This shall include construction of ditches and channels.

24.10.260 Hearing Examiner. "Hearing Examiner" means the office of Snohomish County Hearing Examiner created by Chapter 2.02 SCC.

24.10.270 Impervious surface areas. "Impervious surface areas" means hard surfaced areas which prevent or retard the entry of water into the soil mantle and/or cause water to run off the surface in greater quantities or at an increased rate of flow than under natural conditions. Common impervious surfaces include, but are not limited to, rooftops, con-

crete or asphalt sidewalks and pavement, walkways, patio areas, driveways, parking lots or storage areas that are graveled, or other surfaces which similarly impede the natural infiltration of surface water or runoff patterns existent prior to development.

24.10.280 Lake. "Lake" means a naturally existing or artificially created body of standing water which exists on a year-round basis and occurs in a depression of land or expanded part of a stream, and includes reservoirs. A lake must be greater than one acre in size, greater than 2 meters (6.6 feet) in depth at the deepest point, and have less than 30% areal coverage by trees, shrubs, or persistent emergent vegetation. A lake is bounded by the ordinary high water mark or, where a stream enters the lake, the extension of the elevation of the lake's ordinary high water mark within the stream. Provided, however, that for the purposes of this title "lake" does not include entirely artificial structures such as storm water retention/detention ponds or ornamental ponds created by man.

24.10.290 Ordinary high water mark. "Ordinary high water mark" means the mark on all lakes, streams and tidal waters which will be found by examining the beds and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation, as that condition exists on the effective date of this title, or as it may naturally change thereafter;

Provided, however, that in any area where the ordinary high water mark cannot be found, the ordinary high water mark adjoining saltwater shall be the line of mean higher high tide and the ordinary high water mark adjoining freshwater shall be the line of mean high water.

24.10.300 Peak discharge. "Peak discharge" means the maximum surface water runoff rate in cubic feet per second (cfs) determined for the design storm.

24.10.310 Plans. "Plans" means the project drawings which show location, character and dimensions of the proposed work including layouts, profiles, cross-sections, and other details.

24.10.320 Reclamation. "Reclamation" means the final grading and land restoration of a site.

24.10.330 Shorelines. "Shorelines" means those lands defined as "shorelines of the State" in the state Shoreline Management Act of 1971, (RCW 90.58).



24.10.340 Site. "Site" means any lot or parcel of land or contiguous combination thereof, where land alteration is proposed.

24.10.345 Site alteration. "Site alteration" means the change in existing site conditions through grading, clearing, construction, paving or other means.

24.10.350 Slope. "Slope" means an inclined ground surface the inclination of which is expressed as a ratio of horizontal distance to vertical distance.

24.10.360 Soil. "Soil" means naturally occurring superficial deposits overlying bed rock.

24.10.370 Specifications. "Specifications" means requirements for the proposed work and include Washington State Department of Transportation standards and specifications and Snohomish County Department of Public Works design standards.

24.10.380 Stream. "Stream" means all lands and waters contained within a channel when such lands periodically support predominantly hydrophytes, the substrate is predominantly undrained hydric soil, or the substrate is non-soil and is saturated with water or covered by water at some time during the growing season of each year;

Provided however, that for purposes of this title, "stream" does not include irrigation and drainage ditches, grass-lined swales, canals, stormwater runoff devices, or other entirely artificial water courses. Streams which have been channelized or culverted shall continue to be considered streams for the purpose of this title.

24.10.390 Terrace. "Terrace" means a relatively level step constructed in the face of a graded slope surface for drainage and maintenance purposes.

24.10.400 Watershed management plan. "Watershed management plan" means a plan adopted by the Council pursuant to Title 25 SCC for a specific watershed management area. The plan consists of a detailed analysis of a drainage basin including a comparison of the capabilities and needs for runoff accommodation due to various combinations of development, land use, structural and nonstructural management alternatives, and recommendations as to the form, location and extent of quantity and quality control measures

which would satisfy legal constraints, water quality standards, and community standards. The plan also identifies the institutional and funding requirements for plan implementation.

24.10.410 Wetlands. "Wetlands" means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include, but are not limited to swamps, marshes, bogs, and similar areas;

Provided however, for the purposes of establishing critical areas in order to fully assess drainage impacts, and calculating storage and conveyance functions in drainage plans in accordance with Title 24, except for riparian and class I wetlands, wetlands are only those which are 500 square feet or larger and shall include the entire individual wetland irrespective of property ownership.

24.10.420 Wetland edge. "Wetland edge" means the line dividing the wetland from adjoining uplands or deepwater habitats. The edge is identified by examining the presence (wetland) or absence (upland) of: a prevalence of hydrophytic plants, hydric soils, and the water table at or near the surface.

Chapter 24.15

RULES AND REGULATIONS

Sections:

- 24.15.010 Director's Authority.  
24.15.020 Technical Modifications.

24.15.010 Director's Authority. The Director of Public Works is authorized to develop rules, procedures, and requirements necessary to implement the provisions of this Chapter. These rules, procedures, and requirements shall set forth the technical and administrative standards for surface water facilities and drainage control measures for land development projects within the County. The rules, procedures and requirements shall address, but not be limited to, the following:

- (1) hydrologic and hydraulic analysis and design
- (2) erosion and sediment control requirements and management practices
- (3) structural requirements
- (4) drainage and erosion control plan review procedures
- (5) facility maintenance requirements
- (6) water quality maintenance and control

24.15.020 Technical Modifications. The public works Director is hereby authorized to make technical modifications to the rules, procedures and requirements authorized by Section 24.15.010 SCC as necessary to reflect changes in known and available technology consistent with the requirements of this Title.

Chapter 24.20

GRADING REQUIREMENTS

Sections:

- 24.20.010 Grading permit required.
- 24.20.015 Grading Permit Expiration.
- 24.20.020 Issuance of grading permits.
- 24.20.030 Grading permit exemptions.
- 24.20.040 Grading permit application: Submittal requirements.
- 24.20.050 Weather related modifications.
- 24.20.060 Grading operations requirements.
- 24.20.070 Requirements for posting or grading permits and buffer marking.
- 24.20.075 Obligations of persons performing work.
- 24.20.080 Grading inspection.
- 24.20.090 Engineered and regular grading.
- 24.20.100 Completion of work, requirements for engineered record drawings.
- 24.20.110 Abandonment/Reclamation of mining/quarrying sites.
- 24.20.120 Grading in Shorelines of the State.
- 24.20.130 Disclaimer of liability.

24.20.010 Grading permit required. A grading permit shall be required for:

(1) all grading except that exempted by section 24.20.030.

(2) all clearing within critical areas except that exempted by section 24.20.030 and except for clearing conducted further than 100 feet from the edge or ordinary high water mark of any Class II or Class III aquatic system.

24.20.015 Grading Permit Expiration. Grading permits shall expire and become null and void eighteen months from the date of issuance. Before the work authorized by an expired permit can be recommenced, a renewed permit shall first be obtained to do so. If no changes have been made or will be made in the original plans and specifications for the work and if at least one inspection has been done pursuant to the original permit, then the fee for the permit renewal shall be one half of the amount required for the original permit. No permit may be renewed later than thirty days after the date of expiration of the original permit. No permit shall be renewed more than once. The Director may set

an earlier specific expiration date for permits issued pursuant to this Chapter if, after review of plans or supplemental information submitted to the Department, he determines that sensitive environmental conditions on the project site such as the presence of steep slopes or aquatic systems necessitate that grading, drainage improvements and site stabilization occur within a specific period of time.

24.20.020 Issuance of grading permits.

(1) The Director shall issue a grading permit if, after review of plans and specifications, such plans are deemed to be complete and accurate and otherwise in compliance with applicable county codes.

(2) No grading permit will be issued until any and all permits and approvals required for development of a site have been obtained and review of the conceptual or detailed drainage plan completed.

24.20.030 Grading permit exemptions.

(1) A grading permit shall not be required for:

(a) All activities regulated by the state of Washington as Class I, Class II, Class III, or Class IV forest practices subject to RCW 76.09, Washington State Forest Practices Act where the land is not proposed to be converted to another use.

(b) Operation of refuse disposal sites controlled by other regulations, Provided, however, this exemption shall not apply to expansions, relocations, or closures of disposal sites.

(c) Operation of commercial activities involving mining, quarrying excavating, processing, stockpiling of rock, sand, gravel aggregate or clay where such operations are authorized by a valid Snohomish County conditional use permit or special use permit as required by Title 18, SCC, and where such operations do not affect the lateral support or increase the stresses in or place pressure upon any adjacent or contiguous property or result in downstream drainage impacts: Provided, however, that any filling not specifically identified in the conditional use or special use permit shall require a grading permit.

(d) Site investigative work necessary for land use application submittals such as surveys, soil logs, percolation tests and other related activities.

(e) Construction and practices normal or necessary for commercial farming, ranching and associated irrigation, including normal maintenance and repair of dikes, ditches, and existing structures, placement of riprap when necessary to make emergency repair to dikes, installation of drain tile and drain maintenance for existing drainage systems, and implementation of best management practices as defined in "Snohomish County Metropolitan Municipal

Corporation/King County 208 Area Wide Waste Management Planning Study, Farm Water Quality Management Manual", September, 1977; Provided that such best management practices are designed and approved by the Snohomish County Conservation District as part of approved farm conservation plans.

(f) Clearing and grading within critical areas when excavation and/or filling does not exceed 50 cubic yards of material; Provided that such clearing or grading is associated with uses normally incidental to a single family dwelling. These shall include, but not be limited to, gardening, cultivating, pruning, landscaping, firewood cutting, preparation of ground for placement of accessory structures and other actions of a similar nature; Provided further that aquatic systems are not impacted, buffers or other open space areas established and protected by easement, covenant or other means are not impacted, and no filling, excavation or placement of riprap occurs within the ordinary high water mark of any stream or lake or within any Class I wetland.

(g) Excavation for a well for a single family residence.

(h) Cemetery graves.

(i) Excavation or filling for siting utility transmission, distribution and service lines. Such excavation or filling shall be the minimum necessary to allow project construction and shall be in general conformance with the Aquatic Resource Protection element of the Snohomish County Comprehensive Land Use Plan and Title 30 SCC.

(j) Construction within a County road right-of-way established prior to the effective date of this title for the purposes of road construction and maintenance.

(2) A grading permit is not required for the following actions except when done within a critical area:

(a) Fills or excavations which do not exceed 100 cubic yards on any one lot, do not obstruct a drainage course, and are not for the purpose of creating more than 5000 square feet of impervious surface.

(b) Excavations which do not exceed 500 cubic yards on any one lot for a basement or footing for a single family residence and accessory structures.

24.20.040 Grading permit application: Submittal requirements. Submittal of the following information shall be required for a completed grading permit application:

(1) Four sets of plans and specifications drawn to scale upon mylar or substantial paper. Plans shall clearly indicate the nature and extent of the work proposed and be sufficiently detailed to allow the County to determine their conformance to the provisions of this title and all other relevant laws, ordinances, rules and regulations. The first

sheet of each set of plans shall contain a site location map and the name and address of the owner and the person by whom they were prepared. In addition plans shall include the following information:

(a) vicinity map of the proposed site.

(b) property limits and accurate contours of existing ground at intervals of no greater than five feet and details of terrain and area drainage.

(c) accurate location, dimension and contours of all critical areas including steep slopes, slide hazard areas, streams, lakes and wetlands and buffers required pursuant to Title 30 SCC. within, or partially within the subject property: Provided, however, that the Director may require that critical areas located partially beyond the boundaries of the subject property be accurately depicted when he/she determines that such information is necessary to fully assess clearing and/or grading impacts to critical areas.

(d) limiting dimensions, elevations or finish contours to be achieved by the grading, and proposed drainage channels and related construction.

(e) extent and type of vegetative cover prior to clearing and/or grading and extent and type of vegetative cover after completion of clearing and/or grading.

(f) detailed plans of all surface and subsurface drainage devices, walls, cribbing, dams and other protective devices to be constructed with, or as a part of, the proposed work, together with a map showing the drainage area and the estimated runoff of the area served by any drains.

(g) location of any buildings or structures on the property where the work is to be performed and the location of any buildings or structures on land of adjacent owners which are within 15 feet of the property or which may be affected by the proposed grading operations.

(2) Off-site deposition site location for excavated material.

(a) If excavated material is to be deposited at an off-site location, the grading application must include information on the deposition site location and characteristics. The plan must include verification that the deposition site is not within a critical area.

(b) If the off-site deposition site is within a critical area, or if the amount of fill exceeds the thresholds specified in subsection 24.20.030 (2) (a), a separate grading permit is required.

(3) Plan specifications shall accompany each set of plans.

(4) A geotechnical report may be required by the Director if site inspection or information supplied by the applicant indicates that soils/and or geologic conditions may exist on site which merit the examination of further, more detailed information in order to adequately address project safety, stability and drainage issues.

(a) The geotechnical report shall include:

(i) Data regarding the nature, distribution and strength of existing soils and their load carrying capacity, conclusions and recommendations for grading procedures and design criteria for corrective measures when necessary, and opinions and recommendations pertaining to the adequacy of the site for grading and development, as related to the proposed project.

(ii) An adequate description of the geology of the site, conclusions and recommendations regarding the effect of geologic conditions on the proposed project, and opinions and recommendations pertaining to the adequacy of the site for grading and development.

(b) Recommendations included in the geotechnical report and approved by the Director shall be incorporated in the grading plans or specifications.

24.20.050. Weather related modifications. After issuance of a grading permit, the Director may require the modification of grading plans and operations if delays in completion of clearing and/or grading result in weather-generated problems not considered at the time the permit was issued.

24.20.060. Minimum requirements for grading operations. The Director may increase minimum setbacks and other restrictions specified by this Chapter when he/she determines it to be necessary for safety and stability, to protect critical areas or to prevent damage to adjacent properties from deposition or erosion or to provide access for slope maintenance and drainage. In addition to the following minimum requirements, all permitted grading must be in conformance with Chapter 24.25, Drainage Requirements.

The following requirements shall apply to all cuts and fills:

(1) The tops of cuts and toes of fill slopes shall be set back from the outer boundaries of the permit area or property lines, and easements, in accordance with Figure No.1. Setbacks between graded slopes (cut or fill) and structures shall be provided in accordance with Figure No. 2. Retaining walls may be used to reduce the required setbacks where the Director has determined in writing that no detrimental impacts will occur to adjacent properties, provided that setbacks are consistent with the zoning code required setbacks.



(2) Cut slopes shall be no steeper than one and one half horizontal to one vertical. Fill slopes shall not be constructed on natural slopes that are steeper than one and one half horizontal to one vertical: Provided, however, that approval for slopes that are steeper than one and one half horizontal to one vertical may be granted by the Director when the applicant's geotechnical engineer verifies that the soils are suitable for such slopes or that containment measures such as berms will prevent soil slippage.

(3) The ground surface shall be prepared to receive fill by removing vegetation, noncomplying fill, topsoil and other unsuitable materials, scarifying to provide a bond with the new fill and, where slopes are steeper than five to one and the height is greater than 5 feet, by benching into sound bedrock or other competent material as determined by the applicant's geotechnical engineer.

(a) All benches shall be at least 10 feet wide, shall be back-sloped and shall be established at not more than twenty-five feet vertical intervals to control surface drainage and debris. Swales or ditches on benches shall have a maximum gradient of five percent.

(b) The area beyond the toe of fill shall be sloped for sheet overflow or a paved drain shall be provided.

(c) The applicant's geotechnical engineer shall determine suitability of the cut as a foundation for fill after the cut has been made, but prior to placement of fill material.

(4) Except in an approved sanitary landfill only earth material may be used for filling. Organic soils may only be used when the Director determines that no stability problems will result from the use of such soils. No rock or similar irreducible material with a maximum dimension greater than 12 inches shall be buried or placed in fills unless prior approval has been obtained from the Director. The Director may permit placement of larger rock when the applicant's geotechnical engineer devises a method of placement acceptable to the Director, continuously inspects its placement and approves the fill stability; Provided, however, that the following conditions must be met:

(a) Prior to issuance of the grading permit potential rock disposal areas shall be delineated on the grading plan.

(b) Rock sizes greater than 12 inches in maximum dimension shall be placed 10 feet or more below grade, measured vertically.

(c) Rocks shall be placed so as to assure filling of all voids with fines.

(5) Compaction of all fills shall comply with the requirements of section 2-03 of the most current edition of the Standard Specifications for Road, Bridge, and Municipal Con-

struction as published by the Washington State Department of Transportation and American Public Works Association, Washington State Chapter.

(6) All disturbed areas including faces of cuts and fill slopes shall be prepared and maintained to control erosion. Surface water or seepage shall be prevented from damaging the cut face of any excavations or the sloping face of a fill. The protection for the slopes shall be installed as soon as practicable. Final project approval shall not be granted until permanent erosion control measures are completed and functional.

(a) Temporary erosion and sedimentation control measures shall be installed on all projects prior to commencing clearing or grading or prior to other site disturbance, whichever comes first, and shall be maintained until permanent controls are established. Such measures shall prevent sediment from being carried in runoff from a site during construction, and shall protect existing water quality. Such measures may vary from site to site depending on such factors as weather, soils, slopes and construction practices. Erosion controls shall be constructed to minimize erosion and return waters to the natural drainage course or man-made facilities free of silt and other pollution so that existing water quality in the natural drainage course is maintained. Temporary erosion and sedimentation controls shall be designed for all storms up to and including the ten-year storm event.

(b) Terraces at least 6 feet in width shall be established at not more than 30-foot vertical intervals on all cut or fill slopes to control surface drainage and debris. Where only one terrace is required, it shall be at mid-height. For cut or fill slopes greater than 60 feet and up to 120 feet in vertical height, the terrace located at approximately mid-height shall be 12 feet in width. Terrace widths and spacing for cut and fill slopes greater than 120 feet in height shall be designed by a civil engineer and approved by the Director. Suitable access shall be provided to permit proper cleaning and maintenance of all elements of the drainage system.

(c) Swales or ditches on terraces shall have a minimum gradient of 5 percent and must be reinforced. They shall have a minimum depth at the deepest point of 1 foot and a minimum paved width of 5 feet. A single run of swale or ditch shall not collect runoff from a tributary area exceeding 13,500 square feet (projected) without discharging into a down drain.

(d) Cut and fill slopes shall be provided with subsurface drainage as necessary for stability and to properly convey groundwater.

(e) All drainage facilities shall be designed to carry waters to the nearest practicable drainage way as specified in the approved drainage plan as a safe place to

deposit such waters and where environmental impacts are minimized. Erosion shall be prevented in the area of discharge by installation of nonerosive down drains or other devices as specified in the approved drainage plan.

(f) Building pads shall have a drainage gradient of 2 percent sloped toward approved drainage facilities; Provided, however, that the gradient from the building pad may be 1 percent if all of the following conditions exist throughout the site:

(i) No fills are greater than 10 feet in maximum depth;

(ii) No proposed finish cut or fill faces have a vertical height in excess of 10 feet, unless fully retained to carry the required loads; and

(iii) No existing faces with a slope steeper than ten to one have a vertical height in excess of 10 feet.

(g) Interceptor drains. Paved interceptor drains shall be installed along the top of all cut slopes where the tributary drainage area above slopes towards the cut and has a drainage path greater than 40 feet measured horizontally. Interceptor drains shall be paved with a minimum of 3 inches of concrete or gunite and reinforced. They shall have a minimum depth of 12 inches and a minimum paved width of 30 inches measured horizontally across the drain. The slope of drain shall be approved by the Director.

(h) Other erosion control devices. Where necessary to control erosion and where specified in an approved drainage plan, check dams, cribbing, rip rap or alternative bank stabilization measures or other devices or methods shall be employed to control erosion and protect public health and safety. Where feasible, vegetation based soil stabilization methods such as plantings, grass-lined swales and biofiltration/settling ponds shall be preferred.

(7) Access roads to grading sites shall be located, constructed and maintained to minimize problems of dust, mud, traffic circulation, drainage and other environmental concerns. Such roads shall be controlled by a gate when required by the Director.

(8) Where hazardous conditions exist, warning signs shall be affixed at locations as required by the Director, and the site must be enclosed by fencing with lockable gates that must be closed and locked when personnel are not present at the site. The fence must be no less than five feet in height and the fence material shall have no horizontal opening larger than two inches.

24.20.070 Requirement for posting of grading permits, and drainage plan approvals, and buffer marking.

(1) Prior to any grading or drainage construction activity authorized by this title, a notice of permit issuance and/or drainage plan approval shall be posted on the subject property by the applicant.

(a) The applicant shall post on the subject property at least two signs, one sign on each frontage abutting a public right-of-way or at the point of access to the property. Signs for posting shall be provided to the applicant by the county. Such posting shall be evidenced by submittal of a verified statement regarding the date and location of posting.

(b) Said notice shall be posted for a minimum of fifteen consecutive days to provide for the appeal period specified in Section 24.45.010.

(c) All public notices required by this section shall include a description of the location of the proposed development in the form of either a vicinity location sketch or a written description, other than a legal description, a notification that no public hearing will be held on the application except as provided in SCC 24.45.010 and instructions and timeframes for appealing the grading permit and/or drainage plan approval.

(2) From the commencement of grading until completion of the final inspection, a copy of a valid grading permit in such form as determined by the Director must be posted on site in a conspicuous location at the point of access to the site where it shall be easily discernible by the grading inspector or members of the public.

(3) Prior to grading or any other site disturbance, all buffers on aquatic systems required pursuant to Title 30, SCC shall be marked in the field by the applicant using flagging or staking techniques acceptable to the Department.

24.20.075 Obligations of persons performing the work.

Any person grading, or directing grading, shall have a copy of a valid grading permit and plans on the work site at all times, and shall be responsible for compliance with plans, specifications, and permit requirements.

24.20.080 Grading inspection and right of entry.

All grading operations for which a permit is required are subject to periodic inspection by the County. By applying for a grading permit the applicant consents to entry by the County for the purposes of making reasonable inspections. Inspections shall be conducted to verify information provided in the application and that work is being performed in accordance with permit requirements.

24.20.090 Engineered and regular grading.

(1) All grading in excess of 5000 cubic yards shall require submittal and approval of a grading plan prepared by a civil engineer, and shall be designated as "engineered grading." Grading involving less than 5000 cubic yards shall be designated "regular grading": Provided, however, that the permittee may choose to have any grading performed as "engineered grading."

(2) Engineered grading.

(a) Prior to issuance of the grading permit, all required reports, compaction data and geotechnical engineering recommendations shall be submitted to the civil engineer and the Director.

(b) When the Director determines that geologic, hydrologic or soil conditions may present special grading or drainage problems, he/she may require the applicant to submit a geotechnical report. When a geotechnical report is required the applicant's geotechnical engineer shall inspect and approve the suitability of prepared ground to receive fills and the stability of cut slopes with respect to soil, hydrologic, and geologic conditions. The geotechnical evaluation shall also include the need for subdrains or other groundwater drainage devices. Where required by the Director to verify safety, testing for required compaction, for stability of all finish slopes and for the adequacy of design of buttress fills shall be conducted.

(c) The civil engineer who prepares the approved engineered grading plan shall incorporate all recommendations from the geotechnical report into the grading plan. The civil engineer shall conduct a professional inspection and approval of the grading within his area of technical specialty. The inspection shall include, but need not be limited to, inspection and approval of the establishment of line, grade and drainage of the development area. The civil engineer shall also prepare revised plans and submit as-graded grading plans upon completion of the work.

(3) The Director may require evaluation of regular grading sites including inspection and testing. The testing agency shall be required to inspect and approve the suitability of cleared areas and benches to receive fill, and the compaction of fills. When the evaluation indicates that geologic factors may be present which require special consideration the grading operation will be required to conform to "engineered grading" requirements.

(4) If, in the course of fulfilling their responsibility under this title, the applicant's civil engineer, geotechnical engineer or the testing agency finds that the work is not being done in conformance with this Chapter or the approved grading plans, the discrepancies shall be reported immediately in writing to the Director along with recommendations for corrective measures, if necessary.

(5) If the civil engineer, the geotechnical engineer or the testing agency of record is changed during the course of the work, the work shall be stopped until the replacement has agreed, and supplied the Director with written notice thereof, to accept the responsibility for approval upon completion of the work.

24.20.100 Completion of work.

(1) Upon completion of rough grading and at final completion of the work the Director shall require the following reports and drawings and supplements thereto:

(a) An as-graded grading plan prepared by the civil engineer including original ground surface elevations, as-graded ground surface elevations, lot drainage patterns and locations and elevations of all surface and subsurface drainage facilities, together with verification that the work was done in accordance with the final approved grading plan.

(b) When required pursuant to this Section, a geotechnical grading report prepared by the applicant's geotechnical engineer which shall include:

(i) Locations and elevations of field density tests, summaries of field and laboratory tests and other substantiating data; comments on any changes made during grading and their effect on the recommendations made in the geotechnical engineering investigation report; and verification of the adequacy of the site for the intended use.

(ii) Final description of the geology of the site including any new information disclosed during the grading and the effect of same on recommendations incorporated in the approved grading plan. The report shall analyze geologic factors present on the site and verify the adequacy of the site for the intended use.

(2) The permittee or his agent shall notify the Director when the grading operation is ready for final inspection. Final approval shall not be given until all work, including installation of all drainage facilities and their protective devices and all erosion control measures, has been completed in accordance with the final approved grading plan, and the required reports have been submitted.

24.20.110 Abandonment/reclamation of mining/quarrying sites.

(1) Upon the exhaustion of minerals or materials or upon the permanent abandonment of the quarrying or mining operation, all nonconforming buildings, structures, apparatus or appurtenances accessory to the quarrying and mining operation shall be removed or otherwise dismantled to the satisfaction of the Director: Provided, that this requirement shall not apply to mining operations established prior to January 1, 1971, except those covered under previously existing zoning requirements.

(2) Grading or backfilling shall be done with non-noxious, nonflammable, noncombustible and nonputrescible solids.

(3) Such graded or backfilled areas, except for roads, shall be sodded or surfaced with soil of a quality at least equal to the topsoil of the land areas immediately surrounding, and to a depth equal to that of the topsoil of land areas immediately surrounding; Provided, however, that all sod and/or soil shall be at least four inches in depth.

(4) Bare topsoil shall be planted with trees, shrubs, legumes and/or grasses which are indigenous to the region and compatible with the surrounding area.

(5) Reclamation plans shall require submittal and approval of a drainage plan as required by Chapter 24.25. Graded or backfilled areas shall be reclaimed in a manner which will not allow water to collect nor permit stagnant water to remain.

(6) Non-harmful tailings consisting of earth material and soil piles shall be leveled. Grading must conform with fill requirements in subsection 24.20.060 (4) (c). The levelled and graded area must be sodded or surfaced and planted as required in subsection (4). Burying of material other than earth materials as part of the mining reclamation is prohibited.

24.20.120 Grading in shorelines of the State.

(1) No grading permit shall be issued when such grading is associated with an activity that requires a shoreline substantial development permit, a shoreline conditional use permit or a shoreline variance until shoreline approval has been granted.

(2) Conditions of a shoreline substantial development permit, shoreline conditional use permit or a shoreline variance that pertain to grading shall be incorporated into the conditions of the grading permit.

24.20.130 Disclaimer of liability. Snohomish County is not responsible for the accuracy of plans (preliminary or final) submitted for approval to the Community Development Division of the Snohomish County Department of Planning and Community Development. The County expressly disclaims any responsibility for design or implementation of a grading plan, it being intended that design and implementation of a suitable grading plan are the responsibility of the person or firm submitting the grading application.

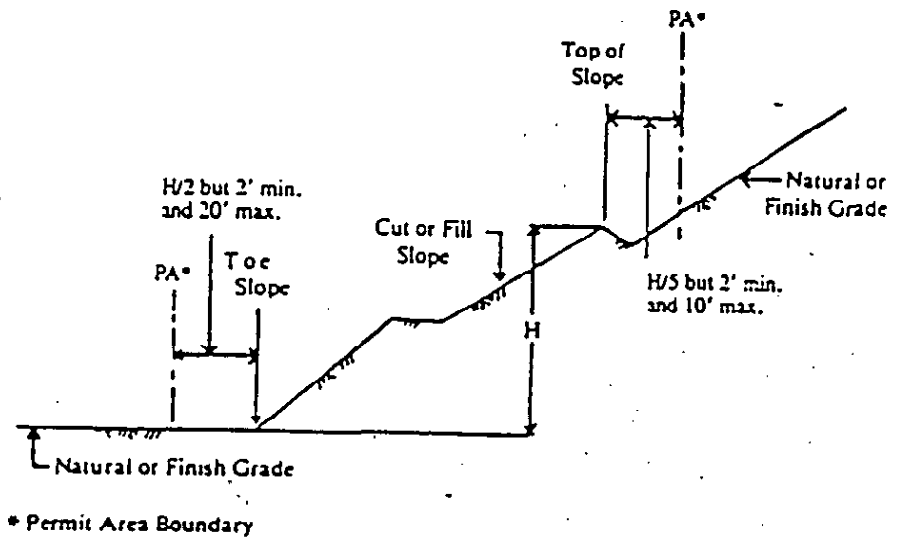


Figure 1

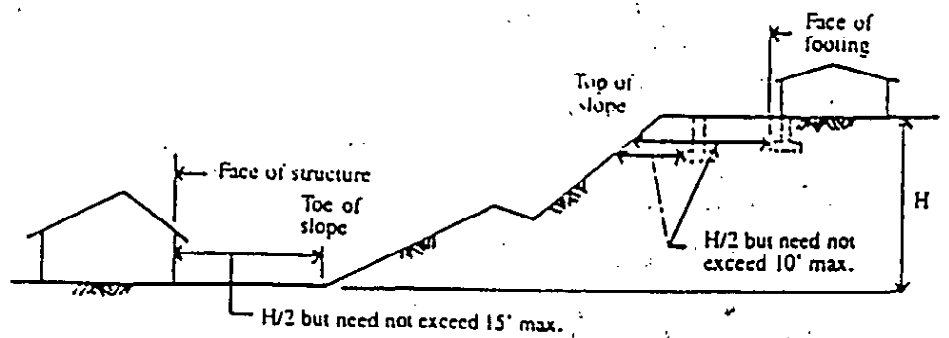


Figure 2



Chapter 24.25

DRAINAGE REQUIREMENTS

Sections:

- 24.25.010 Conceptual drainage plan required.
- 24.25.020 Detailed drainage plan required.
- 24.25.030 Conceptual and detailed drainage plan exemptions.
- 24.25.040 Timing of conceptual and detailed drainage plan submittals and reviews.
- 24.25.050 Conceptual drainage plan contents.
- 24.25.060 Detailed drainage plan contents.
- 24.25.070 Effect of incomplete submittals.
- 24.25.080 Reuse of drainage plan submittals.
- 24.25.085 Conceptual or detailed drainage plan register for proposed wetland or stream alteration.
- 24.25.090 Drainage and retention/detention design requirements.
- 24.25.100 Completion of work, requirements for engineered record drawings
- 24.25.110 Waiver of detailed drainage plan requirement.
- 24.25.130 Drainage plan approvals.
- 24.25.140 Drainage system inspection and right of entry.
- 24.25.145 Approval of construction changes to approved drainage plans.
- 24.25.150 Construction Acceptance
- 24.25.155 Applicability of approved drainage plans to individual lot owners.

24.25.010 Conceptual drainage plan required. The conceptual drainage plan shall provide initial information regarding the drainage characteristics of a proposed project and project site. The plan shall contain sufficient information for preliminary assessment of drainage related impacts. Submittal and approval of a conceptual drainage plan is required for:

(1) Any activity for which a public hearing is required and for which project site alteration is proposed including rezone requests.

(2) Short subdivisions and large lot subdivisions not located within a critical area.

(3) Excavations for a basement or footing for a single family residence when located in a critical area except where a detailed drainage plan has been approved by the County for the subdivision in which the lot is located and where the approved plan adequately addresses drainage impacts spe-

cifically associated with individual lots. Such lots shall meet the requirements of section 24.25.150.

(a) Any applicant may submit a detailed drainage plan in place of a required conceptual drainage plan.

24.25.020 Detailed drainage plan required.

(1) Unless waived pursuant to section 24.25.100 submittal and approval of a detailed drainage plan is required:

(a) Prior to final project approval for any activity specified in Section 24.25.010 (1).

(b) For any other activity involving site alteration not otherwise specified in Section 24.25.010, or exempted in Section 24.25.030.

(2) The Department may require submittal and approval of a detailed drainage plan if the information contained in the conceptual drainage plan is insufficient for the purposes of assessing and assuring mitigation of potential adverse drainage impacts.

24.25.030 Conceptual and Detailed drainage plan exemptions.

Neither a conceptual nor a detailed drainage plan is required for:

(1) Variances, where no site alteration is proposed.

(2) Construction and practices normal or necessary for commercial farming, ranching and associated irrigation, including normal maintenance and repair of dikes, ditches, and existing structures, placement of riprap when necessary to make emergency repair to dikes, installation of drain tile and drain maintenance for existing drainage systems, and implementation of best management practices as defined in "Snohomish County Metropolitan Municipal Corporation/King County 208 Area Wide Waste Management Planning Study, Farm Water Quality Management Manual", September, 1977; Provided that such best management practices are designed and approved by the Snohomish County Conservation District as part of approved farm conservation plans.

(3) Clearing and grading within critical areas when excavation and/or filling does not exceed 50 cubic yards of material; Provided that such clearing or grading is associated with uses normally incidental to a single family dwelling. These shall include, but not be limited to, gardening, cultivating, pruning, landscaping, firewood cutting, preparation of ground for placement of accessory structures and other actions of a similar nature; Provided further that aquatic systems are not impacted, buffers or other open space areas established and protected by easement or covenant are not impacted, and no filling, excavation or placement of riprap occurs within the ordinary high water mark of any stream or lake or within any Class I wetland.

(4) Excavation or filling for siting utility transmission, distribution and service lines. Such excavation or filling shall be the minimum necessary to allow project construction and shall be in general conformance with the Aquatic Resource Protection element of the Snohomish County Comprehensive Land Use Plan and Title 30 SCC.

(5) Except when located within a critical area:

(a) Activities involving excavation or filling of less than 100 cubic yards which do not result in the creation or approval of more than 5,000 square feet of impervious surface area.

(b) Excavations for a basement or footing for a single family residence and accessory structures when such excavations do not exceed 500 cubic yards.

24.25.040 Timing of conceptual and detailed drainage plan submittals and reviews.

(1) The conceptual drainage plan or detailed drainage plan shall be submitted at the time a permit application is submitted for any proposed activity.

(2) When a conceptual drainage plan or detailed drainage plan is required, review of the drainage plan shall occur prior to issuance of any other county land use permit or approval.

24.25.050 Conceptual drainage plan contents. Conceptual drainage plans shall include the following information:

(1) Location, site description and tax account number.

(2) Flow directions of existing drainage.

(3) Location of existing and planned structures.

(4) Approximate location of all critical areas including stream, lake and wetland boundaries, and buffers required pursuant to Title 30, SCC.

(5) Proposed method of handling drainage impacts, including inspection and maintenance schedule for drainage systems.

(6) Temporary Erosion and Sedimentation Control (TESC) Plan. The TESC Plan prepared by the applicant shall include proposed measures for controlling runoff during clearing, grading and construction and proposed staging and schedule of all building/clearing/grading activities. The TESC plan must be fully implemented at each stage of site development from the time of initial grading and clearing to final construction preceding occupation. Inspection and maintenance provisions shall be included as part of the TESC plan to ensure that all TESC measures such as fabric fencing and check dams are performing efficiently at all times.

24.25.060 Detailed drainage plan contents. All detailed drainage plans shall be prepared by, and bear the stamp of a licensed professional civil engineer. Detailed drainage plans shall include the following information with respect to surface and pertinent subsurface water flows entering, flowing within, and leaving the subject property, before, during, and after construction.

(1) Project and site description:

(a) A legal description of the property.

(b) The names, addresses and telephone number of the owners and persons ordering the work to be performed.

(c) To the extent necessary to adequately demonstrate the accuracy of computations, the location of any existing or proposed buildings, structures, and utilities on the property where the work is to be performed and the location of any existing building or structure located on adjacent property and within fifteen feet of where the work is to be performed.

(d) Elevations, dimensions, location, and extent of slopes for all work proposed to be done, shown on a contour map. The map shall be at a minimum scale of one inch equals 200 feet. Other approved scales for contour maps are one inch equals 100 feet, one inch equals 50 feet, one inch equals 20 feet, or one inch equals ten feet. A one to ten vertical to horizontal relationship must be used for all plan/profile maps. The contour map shall show the existing contours of the land at no more than five foot intervals and the proposed contours of the land after completion of the proposed work, at the same intervals.

(e) Summary of existing and proposed vegetative cover, including types of trees, shrubs, and grasses depicted on a map of the proposed site.

(f) Location and extent of underlying soil types, and for hydric soils, moisture content under saturated and dry conditions.

(g) The boundaries of all areas that will be paved, cleared, graded or otherwise altered in a manner that will increase surface water runoff, and boundaries of all areas to remain in an existing or natural condition.

(h) Location and boundaries of all streams, lakes, wetlands and critical areas, and buffers required pursuant to Title 30, SCC.

(i) Location of existing and proposed drainage features which transport surface water onto, across, or from the site including natural watercourses, artificial channels, drainage pipes or culverts.

(2) Background computations for sizing drainage facilities:

(a) Peak discharge and volume of surface and subsurface water currently entering and leaving the subject property due to the design storm. For subsurface waters en-

tering property methods used for estimating quantity for design purposes shall be indicated.

(b) Peak discharge and volume of runoff which will be generated due to the design storm within the subject property and at downstream discharge points off the subject property, if the proposed activity is allowed to proceed.

(3) Proposed method(s) of handling drainage:

(a) Proposed improvement for handling the computed runoff, including the location and capacity of all natural or proposed drainage facilities, the method of discharging stormwater off-site at the naturally occurring location, and provisions needed to restrict the velocity and direction of the discharge in order to avoid damage to other properties and aquatic systems.

(b) Drawings of proposed open channel and closed conduit systems.

(i) In open channel work, the water surface elevation of the flow for the design storm must be indicated on plan and profile drawings as well as the configuration of the finished grades constituting the banks of the open channel.

(ii) The proposed cross-section of the channel with stable side slopes must be shown in the plan and

(iii) The water surface elevation of the flow for the design storm must be indicated on the cross section.

(c) Temporary Erosion and Sedimentation Control (TESC)

Plan. The TESC Plan prepared by the applicant shall include proposed measures for controlling runoff during clearing, grading and construction and proposed staging and schedule of all building/clearing/grading activities. The TESC plan must be fully implemented at each stage of site development from the time of initial grading and clearing to final construction preceding occupation. Inspection and maintenance provisions shall be included as part of the TESC plan to ensure that all TESC measures such as fabric fencing and check dams are performing efficiently at all times.

(d) Method for assuring long-term operation and maintenance of drainage improvements and facilities in accordance with SCC 24.30.010, including inspection and maintenance schedule for drainage systems.

24.25.070 Effect of incomplete submittal. The County will refuse to process an application that fails to include all materials required by this Chapter.

24.25.080 Reuse of drainage plan submittals. A plan submitted during one permit/approval process may also be submitted as part of further required applications so long as it is supplemented with any additional information requested by the Director. If the Director determines that a

previously submitted plan, including supplementary information, is inadequate he/she may require a separate detailed drainage plan and fees.

24.25.085 Conceptual or detailed drainage plan register for proposed wetland or stream alteration. The Director shall maintain a register of all conceptual or detailed drainage plans submitted to the department for approval when such plans propose alterations to streams or wetlands. The register shall be posted at least 15 working days before drainage plan approval is granted. All other County permits or approvals applied for by the applicant relating to the project for which the drainage plan was prepared shall be listed on the register.

24.25.090 Drainage and retention/detention systems design requirements.

(1) All projects which will increase peak rates of runoff from the property shall provide on-site retention/detention facilities, except as otherwise provided by this section or section 24.25.110.

(2) Where natural drainage patterns exist, surface water entering the subject property shall be received, and that exiting the property shall be discharged, at existing natural locations. All collected site run-off shall be required to flow through the detention/retention facility.

(3) The minimum design storm for purposes of sizing and designing drainage conveyance structures such as pipes, culverts and ditches, shall be a 6-hour duration, 25-year return period storm. The minimum design storm for the purposes of designing retention/detention facilities shall be the 6-hour or 24-hour duration, 25-year return period storm, whichever volume is greater, Provided, that in areas designated as "special flood hazard areas", as defined within Title 27, Snohomish County Flood Hazard Ordinance, the design storm shall be a 100 year return period storm.

(4) Weir design and/or minimum orifice sizes must be consistent with the design requirements contained in the Drainage Procedures Manual. All facilities must be designed to minimize maintenance requirements.

(5) Residential development drainage plans shall include a conveyance system for roof and downspout drains.

(6) To the maximum extent feasible drainage pipes and channels shall be located so as to run within single lots rather than being split by lot lines. Drainage easements may extend to either side of a lot line.

(7) Retention/detention facilities must be designed with adequate capacity and discharge controls to restrict peak runoff flows to predevelopment rates for the 24-hour storm event for the two-year, 10-year, and 25-year return period storm. Detention ponds shall be designed with 10%

greater volume than shown by the run-off calculations to account for obstruction of pond volume by vegetation.

(8) Overflow provisions must be suitable for passage of run-off from the 24-hour storm event, for the 100-year return period storm without failure, and must direct waters from storms ranging between 25-year and 100-year return period storms away from all structures.

(9) All projects where flows on-site exceed those of the predevelopment level discharges shall have systems with adequate energy dissipaters to avoid the erosive effects that result from increased flows.

(10) Cleanout gates in restrictor standpipes shall be of a liftgate or sheargate design. No slide gates shall be allowed.

(11) Existing water quality of aquatic systems receiving discharged stormwater shall be maintained. All discharges which may potentially degrade existing water quality shall be provided with known, available and reasonable methods of treatment prior to discharge. The following are minimum water quality maintenance requirements:

(a) The use of permanent wet ponds and/or constructed wetlands shall be required for stormwater retention/detention where calculated storage needs exceed 3000 cubic feet. The wet pond shall be designed with a permanent pool that is maintained between storms. Additional storage is required to meet the detention volume requirements over and above that provided by the permanent storage of the wet pond. Dry (ie. detention) ponds shall be designed with gravel berms to create a circuitous route for low flows in order to enhance the pollutant removal capacity of the pond. All ponds shall be designed as flow through ponds. Ponds with over 10,000 cubic feet storage volume shall be provided with a separate sedimentation pond on the inlet side of the pond.

(b) All projects which will increase the peak rate of runoff from the property shall provide an on-site oil water separator prior to discharge from the site.

(c) Conveyance design shall incorporate grass swales and other means of biofiltration for surface water conveyance prior to discharge into naturally occurring aquatic systems. A minimum of 200 feet of grass-lined swale per acre of impervious surface area, or the equivalent water quality treatment, shall be provided. Biofiltration systems and other elements of drainage systems designed to protect water quality shall be designed and constructed to function for that purpose up to the 2-year, 24 hour storm. Generally, all run-off from parking areas, roads, and driveways shall be routed to sheetflow over grass prior to entering a pipe.

(12) Drainage plans which incorporate use of existing wetlands in order to meet requirements for retention/detention must meet the requirements of Title 30, Snohomish County Code.

(13) Retention/detention facilities must be designed so that direct access is provided from a public right-of-way for maintenance purposes. All catch basins, including the restrictor control catch basin, must be provided with a minimum 15 foot wide, level access road suitable for heavy maintenance vehicles. The design of the detention pond must include provisions to minimize the maintenance requirements.

(14) Where open channel construction is used to handle drainage within the subject property, a minimum fifteen (15) foot setback shall be provided between any structures and the top of the bank of the defined channel.

(15) Where a closed system is used to handle drainage within the subject property, a minimum ten (10) foot setback shall be provided between any structures and the closed system.

(16) All drainage facilities, including conveyance and retention/detention facilities, must be located in a drainage easement at least twenty feet in width dedicated to the County for the purposes specified in section 24.30.010 (2).

(17) Soils disturbed for drainage system construction shall be revegetated or otherwise stabilized to minimize erosion.

(18) In order to mitigate or eliminate special drainage problems, the Director may require drainage improvements in addition to those specified. Such improvements may include, but are not limited to, downstream improvements where the Director determines that downstream conditions are highly sensitive, or will be adversely impacted by the proposed activity.

24.25.100. Completion of work, requirements for engineered record drawings.

(1) Final reports. Upon final completion of the work the following reports and drawings and supplements thereto shall be submitted:

(a) A record drawing prepared by the applicant's civil engineer or licensed surveyor reflecting the actual vertical and horizontal locations of the road and storm drainage facilities constructed on the project site. The requirements for record drawings shall be determined by the Director.

(b) The record drawings shall include the following declaration by the applicant and his/her civil engineer or licensed surveyor.



WE HEREBY DECLARE UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF WASHINGTON THAT THE ROAD AND STORM DRAINAGE IMPROVEMENTS DEPICTED ARE LOCATED AND CONSTRUCTED AS SHOWN ON THESE RECORD DRAWINGS.

BY \_\_\_\_\_  
Engineer/Surveyor Date and Place

BY: \_\_\_\_\_  
Developer/Owner Date and Place

24.25.110 Waiver of detailed drainage plan requirement.

After a conceptual drainage plan has been submitted and reviewed, the Director may waive the requirement for a detailed drainage plan upon written findings in support of the waiver. A waiver shall be granted only if the activity meets all of the following criteria:

(1) it will not adversely impact existing water quality conditions of any aquatic systems;

(2) it will not alter the surface discharge location, alter the drainage pattern on adjoining properties, increase the peak discharge, adversely increase runoff volume, or cause any other adverse effects in the drainage basin; and

(3) it will not alter the subsurface drainage patterns, flow rates, or discharge points, nor result in any significant adverse effects to property or residents.

24.25.130 Drainage plan approvals.

Conceptual or detailed drainage plans will be approved only when such plans comply with all requirements of this Title and Title 30 SCC. When no specific site development plans have been submitted, conceptual or detailed drainage plans shall reflect Title 30 buffer retention requirements based upon potential use of the site allowed by the underlying zoning or applicable comprehensive plan, whichever allows the most intensive use.

24.25.140 Drainage system inspection and right of entry.

All drainage system construction is subject to periodic inspection by the County. By submitting conceptual or detailed drainage plans for approval, the applicant consents to entry by the County for the purposes of making reasonable inspections. Inspections shall be conducted to verify information provided in the drainage plan and to verify that work is being performed in accordance with an approved drainage plan.

24.25.145 Approval of construction changes to approved drainage plans.

All proposed construction changes revising an element of the approved drainage plan must receive written approval by the Director prior to construction in the field.

The Director may require submittal of design calculations or additional information to justify the changes prior to making a decision on the proposed changes. Any changes authorized shall comply with the requirements of Title 24. Copies of approved changes shall be kept in the official record of the drainage plan file, and shall be noted on the final construction plans.

24.25.150 Construction Acceptance. Subsequent to final inspection, the Director or his designee shall determine whether construction conforms to the approved drainage plan. If construction is in conformance the Director shall document approval in writing and transmit a copy to the permittee. If construction is not in conformance with approved plans, the Director shall identify any deficiencies in writing and notify the permittee that construction acceptance shall not be granted until the site is in full compliance with the approved plan.

24.25.155 Applicability of approved drainage plans to individual lot owners. When approved drainage plans for any subdivision (including short subdivisions and large lot subdivisions) include improvements on individual lots, all subsequent owners of such lots are responsible for adhering to the requirements of the approved drainage plan. The Department shall maintain records of all such lots.

## Chapter 24.30

### MAINTENANCE OF DRAINAGE FACILITIES

#### Sections:

24.30.010 Responsibility for maintenance.

#### 24.30.010 Responsibility for maintenance.

(1) Developers of any residential project shall be responsible for maintenance of the entire drainage system, including detention/retention facilities, for a period of two years following construction acceptance by the County pursuant to 24.25.150 SCC. The County shall periodically inspect the system for maintenance and shall enforce the maintenance requirements pursuant to Chapter 24.50 SCC and Title 28 SCC. Verification of effective maintenance and County approval must be obtained in writing prior to release of any bond required pursuant to Chapter 24.35.

At the end of two years if the County's inspection verifies that the facility has been adequately maintained and is functioning in accordance with the design, the County will assume responsibility for maintaining those elements of the drainage system which are within the County road right-of-way. If the two-year inspection identifies deficiencies in any element of the drainage system due to workmanship, materials or maintenance, the developer must rectify such deficiencies within the time specified by the Director. If the work is not completed within the specified time, the Director may revoke all, or portions of any bond required by Chapter 24.35.

(2) In residential subdivisions the property owners shall have a common undivided interest in the ownership and maintenance of all elements of the drainage system which are not located within the County right-of-way or on other County lands. All such elements of the drainage system shall be placed within an easement consistent with the provisions of 24.25.090 (16).

(a) The easement shall be granted to the public for the purposes of conveying and/or storing stormwater and run-off as specified in an approved drainage plan in order to protect public safety, health and welfare.

(b) The easement shall also grant to Snohomish County the right on behalf of the public to enter said property when necessary to inspect drainage system installation, maintenance and operation, to correct hazardous situations and to modify systems when necessary to protect the public safety, health and welfare.

(c) The easement and restrictions shall be shown on all maps accompanying title reports, and all easement restrictions shall be attached to the property title. The following restrictions apply to all such easements:

(i) No fill, structures, fences, walls, rip-rap, buildings, or other similar devices may be placed within the drainage easement without the express written consent of the Director.

(ii) Individual property owners shall be responsible for maintaining elements of approved drainage systems located on property in their ownership. Maintenance shall include keeping all conveyance, storage and maintenance access areas free of accumulated debris, such as lawn clippings, leaves or trash.

(3) The owner of record of commercial, industrial, or multifamily projects shall be responsible for the maintenance of all on-site drainage systems. Systems shall be kept in full working order at all times so that their water quantity and quality functions are not impaired.

(4) Maintenance for all drainage systems must be conducted by the responsible party in compliance with a county approved schedule. Such schedules shall be included as part of all drainage plans submitted to the County pursuant to 24.25. The County shall enforce the maintenance requirements pursuant to Chapter 24.50 SCC.

Chapter 24.35

FEEES AND BONDS

Sections:

- 24.35.010 Fees.
- 24.35.020 Security
- 24.35.030 Certificate of Insurance

24.35.010 Fees. The schedule of fees and charges for Title 24 SCC is fixed as follows:

(1) Drainage Fees. The following split fee schedule shall apply where a detailed drainage plan is required. No fee is required for a conceptual drainage review. This schedule is in addition to other applicable fees. Where a detailed drainage plan involves several of the permits or approvals listed, the highest single fee shall apply.

(a) Plan Check fee. (To be paid upon submittal of a detailed drainage plan.)

(i) Building permits: \$0.013 per square foot of impermeable area as determined by the director of community development;

(ii) Road construction permits issued pursuant to chapter 13.32 SCC (Unopened right-of-way access permits): Twenty-five cents per center lane running foot to a maximum of fifty dollars);

(iii) Subdivision preliminary plats: Forty-one dollars per lot;

(iv) Conditional use, and special use permits: Where new structures are involved, the fee will be the same as for building permits as in (a) above; where no new structures are involved, but site alteration will result, the fee will be as follows: up to 2.5 acres - \$125; greater than 2.5 + \$125 plus \$50 for each acre, or fraction over 2.5 acres to a maximum fee of \$2,500;

(v) Short plats: Forty-one dollars per lot;

(vi) Zones and integrated site plans: Up to 2.5 acres, \$125 plus \$25 for each acre, or fraction over 2.5 acres to a maximum fee of \$2,500.

(b) Inspection fee. (To be paid prior to approval of a detailed drainage plan.)

(i) Building permits: \$0.013 per square foot of impermeable area as determined by the director of community development;

(ii) Road construction permits issued pursuant to chapter 13.32 SCC (Unopened Right-of-Way Access Permits): twenty-five cents per center lane running foot to a maximum of fifty dollars);

(iii) Subdivision preliminary plats: Forty-one dollars per lot;

(iv) Conditional use, and special use permits: Where new structures are involved, the fee will be the same as for building permits as in (a) above; where no new structures are involved, but site alteration will result, the fee will be as follows: up to 2.5 acres - \$125; greater than 2.5 acres + \$125, plus \$50 for each acre, or fraction over 2.5 acres to a maximum of \$2,500;

(v) Short plats: Forty-one dollars per lot;

(vi) Zones with integrated site plans: Up to 2.5 acres, \$125; greater than 2.5 acres, \$125 plus \$25 for each acre, or fraction over 2.5 acres to a maximum fee of \$2500.

(c) Resubmittal Fee. If the plan as submitted, is determined by the director of community development to be substantially inadequate for the proposed site, a revised plan may be required. The following fees may be charged for plans required to be to be substantially revised.

1st = \$50

2nd = \$75

3rd, and each thereafter = \$100

Provided that in no event shall any resubmittal fee exceed fifty percent of the initial plan check fee.

(2) Grading Permit Fees. The following fees apply to all grading permits issued under 24.20.010. This fee shall be collected by the community development division for investigation, permit administration, plan review, and on-site inspection for conformance to grading permit conditions. The fee shall be composed of two parts; a base fee of fifty dollars/permit to compensate the division for preliminary application screening, and a plan review and inspection fee in accordance with Table A; provided the maximum plan review and inspection fee shall not exceed fifteen thousand dollars. The plan review and inspection fee shall be based on the total number of cubic yards of cut or fill, whichever is greater.

(a) Base fee. (Includes clearing under 24.20.010(2)): \$50

(b) Plan review and inspection fee. (Based on Table A below).

0	-	9,999 cu. yds.	\$ 0.07/cu. yd.
10,000	-	49,999 cu. yds.	0.06/cu. yd.
50,000	-	99,999 cu. yds.	0.05/cu. yd.
100,000	-	and more cu. yds	0.04/cu. yd.

A special investigation fee equivalent to the Table A fee above shall be levied to compensate for additional site investigations performed as the result of a complaint, or initiated at any time, if provisions of the grading code or permit are not being adhered to.

The grading fees set forth in this section shall be in addition to any fees or charges imposed under other laws or regulations.

24.35.020 Bonds.

(1) The Director shall require bonds to be posted in such form and amounts as he/she may deem necessary to assure that the work required by the provisions of this Title, if not completed in accordance with the approved plans, specifications and permit requirements will be corrected to eliminate hazardous conditions, and protect fish and wildlife habitat and the health, safety and general welfare of the public.

(2) Liability under the bond may be released upon written notification by the Director, following final site inspection, or at such time as specified in a mitigation plan approved pursuant to Title 30 SCC that he/she is satisfied that the project complies with conformance to permit conditions, plans and specifications, including corrective work, compensation, enhancement, mitigation or restoration of critical areas, when required.

(3) The amount of the bond shall equal the estimated cost, as approved by the Director, of conformance to plans, specifications and permit requirements, including corrective work and compensation, enhancement, mitigation, restoration and monitoring of critical areas and inspection by the Director.

(4) If the Director determines that conditions exist which are not in conformance with plans, specifications and permit requirements at any time during the term of the bond, he may issue a stop work order prohibiting any additional work until the condition is corrected. The Director may revoke the bond, or a portion of the bond, in order to correct conditions which are not in conformance with plans, specifications, and permit requirements. The applicant may not proceed with work until the original amount of the bond has been reestablished.

24.35.030 Certificate of Insurance. If the director determines that there is a risk of potential liability to the county arising out of actions by permittees who post bonds, he may require the permittee to obtain and maintain continuously public liability insurance and/or other insurance necessary to protect the county and public within limits of liability not less than \$500,000 combined single limit/bodily injury and property damage with appropriate coverage endorsement to include broad form contractual, broad form property damage, contractor's protective, auto and non-owned auto, where such additional coverage endorsements are applicable. Such insurance shall name as additional insureds, "Snohomish County, its officers, elected officials, agents and employees".

Such insurance shall include the following "cross-liability endorsement":

"The inclusion of more than one insured under this policy shall not affect the rights of any insured as respects any claim, suit, or judgment made or brought by or for any other insured or protect each insured in the same manner as though a separate policy had been issued to each except that nothing herein shall operate to increase the company's liability beyond the amount or amounts for which the insurer been liable had only one insured been named."

The above insurance shall not be reduced or cancelled without thirty days written prior notice certain to the county.

Evidence of the existence and continuation of the insurance herein shall be provided to the county's satisfaction and may include either of the following (at the county's option):

(1) A photostatic copy of the endorsement(s) and/or policy providing the required coverage.

(2) An original or photostatic copy of a binder of insurance signed by an authorized broker of the insurance company reciting the above coverages.

(3) A certificate of insurance reciting the above coverages; PROVIDED, that standard accord 25 form shall be modified as follows:

(a) Notice requirements shall be altered to meet the above requirements, and such language as "endeavor to" and "but failure to mail such notice shall impose no obligation or liability of any kind upon the company" is unacceptable and shall not be included.

(b) Language which is of the nature of the following two sentences shall not be included: "This certificate is issued as a matter of information only and confers no rights upon the certificate holder"; and/or "This certificate does not amend, extend or alter the coverage afforded by the policies listed below."



Chapter 24.40

WETLAND, LAKE AND STREAM IDENTIFICATION

Sections:

- 24.40.010 Wetland identification and delineation for inventory and mapping
- 24.40.020 Use of multi-parameter delineation approach.
- 24.40.030 Stream delineation.
- 24.40.040 Lake edge delineation.
- 24.40.050 Metes and bounds survey.

24.40.010 Wetland identification and delineation for inventory and mapping. For general wetlands inventories and mapping Snohomish County shall use the wetland identification and delineation approach based primarily on examination of the prevalence of hydrophytic plants as specified in Classification of Wetlands and Deepwater Habitats of the United States, Cowardin, et.al 1979, for the U.S. Fish and Wildlife Service.

24.40.020 Use of multi-parameter delineation approach. In cases where conflict arises over the exact location of wetland boundaries, the County may require the applicant to submit a wetland survey map on which boundaries have been delineated using the multi-parameter approach developed by the U.S. Army Corps of Engineers and the Environmental Protection Agency as specified in Federal Interagency Committee for Wetland Delineation. 1989. Federal Manual for Identifying and Delineating Jurisdictional Wetlands. U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, U.S.D.A. Soil Conservation Service, Washington D.C. Cooperative technical Publication. The County shall review the results of such surveys.

24.40.030 Stream delineation. The delineation of stream channels shall be made by measuring from the ordinary high water mark to the ordinary high water mark on the opposite bank.

24.40.040 Lake edge delineation. Lake edges shall be delineated by the ordinary high water mark.

24.40.050 Metes and bounds survey. The County may require a metes and bounds survey to identify exactly stream, lake, and wetland boundaries for the purposes of project siting. The County shall review the results of such surveys.

Chapter 24.45

APPEALS

Sections:

24.45.010 Appeals

24.45.010 Appeals.

(1) Final decisions or determinations of the Director regarding issuance of grading permits, or drainage plan approvals under this title may be appealed by an aggrieved party to the county hearing examiner. An appeal shall be filed in writing with the examiner's office within fifteen calendar days of the date the Director's decision or determination is transmitted to the applicant, shall state fully the grounds therefore, and shall be processed in the manner prescribed for administrative appeals under Chapter 2.02 and 18.72 SCC.

(2) Notice of public hearing shall be provided in conformance with the notice requirements for zoning variances in section 18.72.160 SCC when the decision under appeal involves site alteration within a critical area.

Chapter 24.50

ENFORCEMENT

Sections:

- 24.50.010 Director's authority.
- 24.50.020 SCC Title 28 - applicable.
- 24.50.030 Order to cease violation.
- 24.50.040 Notice of violation - penalty - abatement.
- 24.50.050 Public nuisance.
- 24.50.060 Alternative remedies.
- 24.50.070 Administrative jurisdiction - nonexclusive.

24.50.010 Director's authority. Whenever the Director determines that a condition exists in violation of this title or any code or standard required to be adhered to by this title, or any condition, or requirement of any permit imposed pursuant to this title, he/she is authorized to enforce such provisions. Failure to comply with the provisions of this title related to grading and drainage activities is detrimental to the public health, safety and general welfare of the County residents. Penalties for such violations shall be strictly enforced.

24.50.020 SCC Title 28 - applicable. All violations of this title, and codes, standards, and permit conditions or requirements required thereby, are made subject to the provisions of SCC Title 28.

24.50.030 Order to cease violation. Whenever any condition is found to be in violation of this title, or codes, standards, or permit conditions or requirements required to be adhered to thereunder, the Director may order the cessation of activity causing the violative condition by notice in writing served on the person(s) engaged in or causing such condition. The effect of such order shall be to require immediate cessation of activity causing the violative condition. Said order shall not be stayed by any appeal.

24.50.040 Notice of violation - penalty - abatement/withholding of Certificate of Occupancy.

(1) The Director is authorized to order correction and discontinuance of any violative condition of the provisions of this title under the procedures of SCC Title 28, which provide for notice of violation and assessment of penalty and order to abate.

(2) In addition to the issuance of any order for abatement and correction of a violative action pursuant to SCC Title 28, the Director may withhold the issuance of a Certificate of Occupancy or other forms of occupancy approval.

24.50.050 Public nuisance. All violations of this title, and codes, standards and permit conditions or requirements required thereby, are determined to be detrimental to the public health, safety, and welfare and are public nuisances. All conditions which are determined by the Director to be in violation of this title, or codes, standards or permit conditions or requirements required thereby, shall be subject to the provisions of this title and shall be corrected by any reasonable and lawful means, as provided in this title.

24.50.060 Alternative remedies. As an alternative to any other judicial or administrative remedy provided in this title or by law or other ordinance, any person who willfully or knowingly violates any provision of this title or any order issued pursuant to this title, or by each act of commission or omission procures, aids, or abets such violation, is guilty of a misdemeanor, and upon conviction shall be punished as provided in SCC Title 1.01.100. Each day such violation continues shall be considered an additional misdemeanor offense.

24.50.070 Administrative jurisdiction - nonexclusive. The authority of the Director to enforce the provisions of this title is not in derogation of the authority of any other officer charged with the enforcement of law but is concurrent therewith. The authority of the Director to enforce the provisions of this title includes without limitation the requirement that he request the assistance of the prosecuting attorney's office for judicial enforcement as may be deemed appropriate by the prosecuting attorney.

