

Chapter 14.32

DRAINAGE ORDINANCE

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14.32.010 Intent.

Washington State Law mandates that stormwater discharge resulting from development activities be controlled and treated to provide available and reasonable methods of erosion control, flood control, and water quality treatment. To help protect adjacent landowners from downstream flooding, erosion, and pollution, Skagit County has adopted the following requirements for both temporary and long-term stormwater management. (Ord. 17938 Attch. F (part), 2000)

14.32.020 Purpose.

The purpose of this Chapter is to set out the authority, regulatory requirements, submittal requirements, and procedures for stormwater drainage design, review, approval, construction, maintenance and management in Skagit County. (Ord. 17938 Attch. F (part), 2000)

14.32.030 General provisions.

- (1) The requirements of this Chapter are adopted pursuant to the authority granted to Skagit County as set forth in:
 - (a) Chapter 36.70 RCW, Planning Enabling Act;
 - (b) Chapter 36.70A RCW, Growth Management Act;
 - (c) Chapter 90.71 RCW, Puget Sound Water Quality Authority.
- (2) The Board recognizes that stormwater control technology is a developing and evolving science. In order to ensure that the latest and best technology is utilized in Skagit County, the County hereby adopts by reference the Stormwater Management Manual for the Puget Sound Basin or subsequent manuals adopted by Ecology as Skagit County's Stormwater Design Manual. All references to this Chapter shall include the Stormwater Management Manual for the Puget Sound Basin.
- (3) The Administrative Official may amend the Skagit County Stormwater Design Manual, with the approval of the Board, as necessary to reflect changing conditions and technology. All requirements contained in the Skagit County Stormwater Design Manual together with any amendments thereto must be complied with as provided in Subsection (6) of this Section, Applicability.
- (4) Water Quality. For circumstances or conditions related to water quality that are not specifically addressed within this Chapter, the preferred method for selection, design, and implementation of stormwater management practices shall be the method(s) outlined in the current edition of the Stormwater Management Manual for the Puget Sound Basin adopted by Ecology.
- (5) Technical Deviations.
 - (a) Technical deviations from this Chapter and the Stormwater Design Manual may be granted prior to permit approval and construction at the discretion of the Administrative Official only after a determination has been made providing all the following criteria are met:

- (i) The deviation provides equivalent protection and is in the overriding public interest; and that the objectives of safety, function, environmental protection, and facility maintenance, based upon sound engineering, are fully met;
 - (ii) That there are special physical circumstances or conditions impacting the property such that the strict application of these provisions would deprive the applicant of all reasonable use of the parcel of land in question;
 - (iii) Every reasonable effort to find creative ways to meet the intent of the minimum standards has been made;
 - (iv) That the granting of the deviation will not be detrimental to the public health and welfare, nor injurious to other properties in the vicinity and/or downstream, and to the quality of the waters of the State; and
 - (v) The deviation is the least possible exception that could be granted to comply with the intent of the minimum requirements.
- (b) Requests for technical deviations shall be filed in writing with the Administrative Official and shall adequately detail the justification for consideration of relief from any requirements of the Chapter. These requests shall be processed as a Level I decision under SCC 14.06.110.
 - (c) Technical deviations granted shall be valid for 3 years, unless specifically granted for a shorter period.
- (6) Applicability. The provisions of this Chapter shall apply to all regulated activities, as described in SCC 14.32.040 as follows:
- (a) Regulated activities that meet the definition of small development and are located within a critical area or its required buffer, as defined by Chapter 14.24 SCC, Critical Areas Ordinance, shall meet all of the requirements of this Chapter for small development and shall require review and approval by the Administrative Official prior to commencing the regulated activity.
 - (b) Regulated activities that meet the definition of small development and are not located within a critical area or its required buffer, as defined by Chapter 14.24 SCC, Critical Areas Ordinance, shall meet all of the requirements of this chapter for small development but shall not require review and approval by the Administrative Official prior to commencing the regulated activity if the regulated activity involves grading activities that are exempt from grading permit per Chapter 15.04 SCC.
 - (c) Regulated activities that meet the definition of small development and are not located within a critical area or its required buffer, as defined by Chapter 14.24 SCC, Critical Areas Ordinance, shall meet all of the requirements of this chapter for small development and shall require review and approval by the Administrative Official prior to commencing the regulated activity if the regulated activity is not exempt from grading permit requirements under Chapter 15.04 SCC.
 - (d) Regulated activities that meet the definition of large development shall meet all of the requirements of this Chapter for large development and shall require review and approval by the Administrative Official prior to commencing the regulated activity.
 - (e) The provisions of SCC 14.32.100, Operation and maintenance, shall also apply to existing stormwater and drainage facilities in unincorporated Skagit County.
 - (f) The provisions of SCC 14.32.090, Water quality, shall apply to all situations and circumstances throughout unincorporated Skagit County, regardless of whether a new regulated activity is occurring.
 - (g) Any land development which is required by any Skagit County ordinance, or State or Federal law to construct, install, or modify any natural or manmade drainage features within, abutting, or serving the development shall do so in accordance with this Chapter.
 - (h) Where the provisions of this Chapter directly conflict with any other Skagit County ordinance, State or Federal law, or comprehensive drainage plan, the more stringent provisions shall apply to the extent permissible by law.
- (7) Administration. The Administrative Official shall administer this Chapter. The Administrative Official shall have the authority to develop and implement procedures to administer and enforce this Chapter. In all cases involving technical requirements and review, the Administrative Official shall give due consideration and regard to the advice and recommendations of Director of Public Works and County technical staff. (Ord. 17938 Atch. F (part), 2000)

14.32.040 Regulated activities.

The provisions of this Chapter shall apply whenever the following activities are proposed or performed:

- (1) New Development.
 - (a) Land disturbing activities;
 - (b) Structural development, including construction, installation or expansion of a building or other structure;

- (c) Creation of impervious surfaces;
 - (d) Class IV general forest practices that are conversions from timber land to a development;
 - (e) Subdivisions, short subdivisions and binding site plans, except the open space area associated with a CaRD application shall not be subject to the provisions of this Chapter until the time of development.
- (2) Redevelopment. On an already developed site, the creation or addition of impervious surfaces, structural development including construction, installation or expansion of a building or other structure, land disturbing activity, and/or replacement of impervious surface that is not part of a routine maintenance activity, and land disturbing activities associated with structural or impervious redevelopment.
- (3) No site development activity, including land clearing, grading, or other construction activity as described in this Chapter shall occur until the proposed activity has been reviewed in accordance with this Chapter and any appropriate development permit has been issued. Likewise, no site development activity shall continue without an appropriate development permit in force.
- (4) Exemptions.
- (a) Commercial agriculture and non-conversion forest practices regulated under WAC Title 222; and conversions under Class IV general and Class III forest practices with Conversion Option Harvest Plans (COHP) provided DNR road standards and riparian protection rules are applied.
 - (b) Development that is undertaken by the Washington State Department of Transportation in State highway rights-of-way and is regulated by Chapter 173-270 WAC, the Puget Sound Highway Runoff Program, shall be exempt from the provisions of SCC 14.32.040.
 - (c) Construction activities undertaken by Skagit County shall be exempt from the administrative requirements of this Chapter, but shall comply fully with the technical requirements contained herein. Skagit County shall notify adjacent property owners that might be impacted by any proposed project and discuss any proposed mitigation.
 - (d) Projects which do not increase the 100-year, 24-hour storm peak discharge from within the boundaries of the project more than 0.5 cfs shall be exempt from the provisions of SCC 14.32.080(3), provided an analysis and design is performed in accordance with this Section, including:
 - (i) Verification that the post development discharge does not increase in the 100-year, 24-hour storm event by more than 0.5 cfs;
 - (ii) Showing that all runoff leaving the project will be discharged in such a manner so as not to create any new point discharges onto the ground surface of any other property and no increased erosion;
 - (iii) Showing that runoff entering and leaving the project utilizes the pre-development flow regimes as much as is practicable;
 - (iv) Demonstrating that the provisions of SCC 14.32.060 are met;
 - (v) Demonstrating that there are no downstream facilities such as ditches, culverts, streams, etc., within 1/4 mile that may have their hydraulic capacity exceeded or experience any other failure due to the increase in peak flow from the project; and
 - (vi) Analysis and design shall be reviewed and approved by the Public Works Director. If in the opinion of the Public Works Director there is undue risk in granting this exemption, he may require additional analysis, and/or disallow the exemption.
 - (e) Exemptions or exceptions from this Chapter shall not be construed as creating additional exemptions or exceptions to any other Chapter of Skagit County Codes.
- (5) Stormwater Drainage Review Requirements. The Administrative Official shall establish requirements for the stormwater and drainage review of permits and regulated activities, subject to the following criteria:
- (a) Engineered Drainage Plan. Permit applications shall include the submittal of documents prepared by a professional engineer that demonstrate compliance with the standards, specifications and requirements contained in the Stormwater Design Manual when any of the following conditions exist:
 - (i) Any land use or building or development on real property which meets the definition of a Large Development; or
 - (ii) Any improvements within the boundaries of Skagit County rights-of-way for which Skagit County will ultimately assume responsibility for maintenance; or
 - (iii) Any Site Development Activity that the Administrative Official deems to be in the public's best interest to require that certain application documents shall be prepared by a Professional Civil Engineer.

- (6) Off-Site Analysis. The engineered drainage plan for any Large Development shall include an off-site drainage analysis as described in SCC 14.32.080. This drainage analysis shall be based on a field investigation of the off-site contributing and receiving drainage areas of the development.
- (7) Geotechnical Analysis. The engineered drainage plan shall include a geotechnical analysis when:
 - (a) Grading or the construction of retention facilities, detention facilities, or other stormwater and drainage facilities is proposed within 200 feet of slopes steeper than 40% unless waived under SCC 14.24.420(1); or
 - (b) Where the Administrative Official deems that the proposed construction poses a potential hazard due to its proximity to a geologically hazardous area or aquifer recharge area.
Said geotechnical analysis shall address the effects of groundwater interception and infiltration, seepage, potential slip planes, and changes in soil bearing strength.
- (8) Soils Analysis. The engineered drainage plan shall include a soils investigation report where:
 - (a) The soils underlying the proposed project have not been mapped; or
 - (b) Existing soils maps of the project site are inconsistent; or
 - (c) The Administrative Official deems that existing soils maps of the project site are not of sufficient resolution to allow proper engineering analysis.
- (9) Permit Modifications. Proposed modifications to an approved permit must be submitted to Skagit County Planning and Development Services and be reviewed for compliance with this Chapter. Substantial proposed modifications, as determined by the Administrative Official, shall require additional stormwater and drainage review and associated review fees and shall require re-issuance of the required permit. Minor proposed modifications may be accepted by the Administrative Official without requiring the re-issuance of the accepted permit or the payment of additional review fees.
- (10) Temporary Erosion and Sedimentation Control. All final drainage, grading, clearing, or other site development plans requiring acceptance from Skagit County Planning and Development Services shall include a plan for the control of erosion and sedimentation. This plan shall be for the period beginning with the commencement of Development Activity and continuing without interruption until permanent site stabilization is achieved. No clearing, grubbing, grading, or other construction activity may take place on a project site until an Erosion and Sedimentation Control Plan has been reviewed and approved by Skagit County Planning and Development Services. (Ord. O20070009 (part); Ord. O20020001 (part); Ord. 17938 Attch. F (part), 2000)

14.32.050 Financial liability and assurances.

The County may require liability insurance and a financial security to ensure performance of the requirements of this Chapter. (Ord. 17938 Attch. F (part), 2000)

14.32.060 Erosion and sediment control.

- (1) All Developments shall be required to control erosion and sedimentation during construction, to permanently stabilize soil exposed during construction, and to comply with the requirements of this Section.
- (2) Small Development Erosion and Sedimentation Control Minimum Requirements.
 - (a) Construction Access Route. A Construction Access Route designed and constructed to County Standards shall be provided for each construction site. Construction vehicle access shall be, whenever possible, limited to 1 route. Access points shall be stabilized with quarry spalls or crushed rock to minimize the tracking of soils and debris onto public roads.
 - (b) Stabilization of Denuded Area. All exposed soils shall be stabilized by suitable application of approved Best Management Practices (BMPs) including, but not limited to, sod or other vegetation, mat covering, mulching, or application of compacted base material on areas to be paved. All BMPs shall be selected, designed, and maintained in accordance with the Stormwater Design Manual. From October 1st to April 30th, no soils shall remain unstabilized for more than 2 days. From May 1st to September 30th, no soils shall remain unstabilized for more than 7 days. At all times of the year, the contractor shall have sufficient materials, equipment, and labor readily available to stabilize and prevent erosion from all denuded areas within 12 hours as site and weather conditions dictate.
 - (c) Protection of Adjacent Properties. Adjacent properties shall be protected from sediment deposition by appropriate use of vegetative buffer strips, sediment barriers or filters, dikes or mulching, or by a combination of these measures and other appropriate BMPs.

- (d) Maintenance. All erosion and sediment control BMPs shall be regularly inspected and maintained by the applicant and the applicant's contractor to ensure continued performance of their intended function.
 - (e) Other BMPs. Any adverse effects of increased runoff resulting from land disturbing and/or land development activities shall be controlled by appropriate BMPs.
- (3) Large Developments. Any new development meeting the definition of a large development shall comply with Subsections (4) and (5) of this Section. For any redevelopment project meeting the definition of a large development, those portions of the site that are being redeveloped shall comply with Subsections (4) and (5) of this Section. A

Large development requires a Permanent Stormwater Quality Control Plan (PSQCP).

- (4) Erosion and Sedimentation Control Plan Required.
- (a) For large developments, the erosion and sedimentation control requirements shall be demonstrated through the implementation of an approved Erosion and Sedimentation Control Plan prepared by a Professional Engineer.
- (5) Large Development Erosion and Sedimentation Control Minimum Requirements.
- (a) Stabilization and sediment trapping. All exposed and unworked soils including soil stockpiles shall be stabilized by suitable application of BMPs that protect soil from the erosive forces of raindrop impact and flowing water.
 - (i) Applicable practices include, but are not limited to, vegetative establishment, mulching, plastic covering, and the early application of gravel base on areas to be paved. From October 1 to April 30, no soils shall remain unstabilized for more than 2 days. From May 1 to September 30, no soils shall remain unstabilized for more than 7 days.
 - (ii) At all times of the year, the contractor shall have sufficient materials, equipment, and labor readily available within 12 hours as site and weather conditions dictate.
 - (b) Delineation of Clearing and Easement Limits. Clearing limits, setbacks, buffers, and sensitive or Critical Areas such as steep slopes, wetlands, wellhead protection areas and riparian corridors shall be clearly marked in the field by the applicant's surveyors or critical areas consultant and inspected by Skagit County staff (or where appropriate, by the applicant's critical areas consultant) prior to commencement of land clearing activities.
 - (c) Protection of Adjacent Properties. Adjacent properties shall be protected from sediment deposition by appropriate use of vegetative buffer strips, sediment barriers or filters, dikes or mulching, or by a combination of these measures and other appropriate BMPs.
 - (d) Timing and Stabilization of Sediment Trapping Measures. Sediment ponds and traps, perimeter dikes, sediment barriers, and other BMPs intended to trap sediment on-site shall be constructed as a first step in grading. These BMPs shall be functional before additional land disturbing activities take place. Earthen structures such as dams, dikes, and diversions shall be stabilized according to the timing indicated in item (a) above.
 - (e) Slope Stabilization. Cut and fill slopes shall be constructed in a manner that will minimize erosion. Roughened soil surfaces are preferred to smooth surfaces. Interceptors should be constructed at the top of long, steep slopes that have significant areas above that contribute runoff. Concentrated runoff should not be allowed to flow down the face of a cut or fill slope unless contained within an adequate channel or pipe slope drain. Wherever a slope face crosses a water seepage plane, adequate drainage or other protection shall be provided. In addition, slopes should be stabilized in accordance with item (a) above.
 - (f) Controlling Off-site Erosion. Properties and waterways downstream from development sites shall be protected from erosion due to increases in the volume, velocity, and peak flow rate of stormwater runoff from the development site by the implementation of appropriate BMPs to minimize adverse downstream impacts.
 - (g) Stabilization of Temporary Conveyance Channels and Outlets. All temporary on-site conveyance channels shall be designed, constructed, and stabilized to prevent erosion from the expected flow velocity from a 2-year frequency, 24-hour duration storm for the post-development condition. Stabilization adequate to prevent erosion of outlets, adjacent streambanks, slopes, and downstream reaches shall be provided at the outlets of all conveyance systems.
 - (h) Storm Drain Inlet Protection. All storm drain inlets made operable during construction shall be protected so that stormwater runoff shall not enter the conveyance system without first being filtered or otherwise treated to remove sediment. After proper written application, the requirement for inlet protection may be waived by the Administrative Official on a site-specific basis when the conveyance system downstream of the inlet discharges to an appropriate on-site sediment control BMP, including, but not limited to, sediment ponds or traps, and the conveyance system will be adequately cleaned following site stabilization.

- (i) **Underground Utility Construction.** The construction of underground utility lines shall be limited where feasible to no more than 500 feet of open trench at any one time. Where consistent with safety and space considerations, excavated material shall be placed on the uphill side of the trench. Dewatering devices shall discharge to an appropriate sediment trap or pond, preceded by adequate energy dissipation, prior to runoff leaving the site.
 - (j) **Construction Access Routes.** Wherever construction vehicle access routes intersect paved roads, provisions must be made to minimize the transport of sediment (mud) onto the paved road by use of appropriate BMPs such as a Stabilized Construction Entrance. If sediment is transported onto a road surface, the roads shall be cleaned thoroughly, as a minimum, at the end of each day. Sediment shall be removed from roads by shoveling or sweeping and be transported to a controlled sediment disposal area. Street washing shall be allowed only after sediment is removed in this manner.
 - (k) **Removal of Temporary BMPs.** All temporary erosion and sediment control BMPs shall be removed within 30 days after final site stabilization is achieved or after the temporary BMPs are no longer needed. Trapped sediment shall be removed or stabilized on-site. Disturbed soil areas resulting from removal of temporary BMPs shall be permanently stabilized. The removal of temporary erosion and sediment control BMPs may not be required for those projects such as single-family plats that will be followed by additional construction under a different permit. In these circumstances, the need for removing or retaining the measures will be evaluated on a site-specific basis.
 - (l) **Dewatering Construction Sites.** Dewatering devices shall discharge into an appropriate sediment trap or pond designed to accept such a discharge, preceded by adequate energy dissipation, prior to runoff leaving the site.
 - (m) **Control of Pollutants Other Than Sediment on Construction Sites.** All pollutants other than sediment that occur on-site during construction shall be handled and legally disposed of in a manner that does not cause contamination of surface waters. Pollutants of concern include, but are not limited to, fuels, lubricants, solvents, concrete by-products, and construction materials.
 - (n) **Maintenance.** All temporary and permanent erosion and sediment control BMPs shall be maintained and repaired as needed to assure continued performance of their intended function. All maintenance and repair shall be conducted in accordance with the Stormwater Design Manual. The applicant shall be responsible for assuring that any such facilities damaged during floods, storms, or other adverse weather conditions are immediately returned to normal operating condition.
- (6) **Erosion Control Design Storm Event.** Facilities designed for the control of erosion and sedimentation shall be designed for the erosion and sedimentation control design storm event. (Ord. 17938 Atch. F (part), 2000)

14.32.070 Grading.

- (1) The provisions of this Chapter shall apply to all activity requiring filling and grading permits pursuant to Chapter 15.04 SCC.
- (2) **Engineered Grading Plan Required.** Grading projects meeting the criteria in SCC 14.32.040(5) (Stormwater Drainage Review Requirements) shall be required to have an approved professionally Engineered Grading Plan.
- (3) **Abbreviated Grading Plan.** Grading projects meeting the definition of a Small Development shall require an approved Abbreviated Grading Plan in lieu of an Engineered Grading Plan. An Abbreviated Grading Plan is a grading plan that does not require the seal of a Professional Civil Engineer.
- (4) **Erosion and Sedimentation Control Required.** All grading plans shall include a temporary erosion and sedimentation control plan. The plan shall clearly indicate the construction sequence for establishment of all erosion and sedimentation control work, both temporary and permanent. The plan shall conform to all requirements and standards for erosion and sedimentation control set forth in SCC 14.32.060.
- (5) **Maintenance.** It shall be the responsibility of the applicant to maintain all erosion control and drainage facilities in good operating condition at all times as required in SCC 14.32.060. (Ord. 17938 Atch. F (part), 2000)

14.32.080 Stormwater management.

- (1) **Redevelopment Activities.** Where Redevelopment Activities meet the definition of a Large Development, the requirements of this Section shall apply to that portion of the site that is being redeveloped. In addition, where 1 or more of the following conditions exist, the requirements of this Section shall apply to the maximum extent practicable for the entire site, including adjoining parcels if they are part of the project:
 - (a) Existing sites greater than 1 acre in size with 50% or more impervious surface.

- (b) Sites that discharge to a receiving water that has a documented water quality problem. Subject to local priorities, a documented water quality problem includes, but is not limited to, water bodies:
 - (i) Listed in reports required under Section 305(b) of the Clean Water Act and designated as not supporting beneficial uses;
 - (ii) Listed under Section 304(1)(1)(A)(i), 304(1)(1)(A)(ii), or 304(1)(1)(B) of the Clean Water Act as not expected to meet water quality standards or water quality goals;
 - (iii) Listed in Washington State's Nonpoint Source Assessment required under Section 316(a) of the Clean Water Act that, without additional action to control nonpoint sources of pollution, cannot reasonably be expected to attain or maintain water quality standards.
 - (c) Sites where the need for additional stormwater control measures have been identified through a Basin Plan, watershed ranking process, Critical Areas Mitigation Plan or through Sub Area planning.
- (2) Approved Hydrological Methods for Design. Estimation of peak stormwater runoff rates used in the design of stormwater quantity control facilities shall utilize hydrograph methods of analysis approved by the Department of Ecology with other methods used only if approved specifically by the Director of Public Works. This shall also include the design of storage volumes for detention/retention/infiltration facilities that are a part of Stormwater Quantity Control facilities.
- (3) Stormwater Quantity Control. The following Minimum Requirements for Stormwater Quantity Control shall apply to all land developments that meet the definition of a Large Development:
- (a) Diversions. All surface water and stormwater entering the development site in its pre-development state shall be received at the naturally occurring or otherwise legally existing locations. No surface water or stormwater may be diverted from one basin to another except as provided in (i) and (ii), below. All surface water and stormwater leaving the development site shall be discharged at all times during and after development at the naturally occurring or otherwise legally existing locations so as not to be diverted onto or away from adjacent downstream properties, EXCEPT that the Administrative Official may permit:
 - (i) A diversion which will correct an existing man-made downstream problem; or
 - (ii) A diversion which will otherwise improve existing downstream conditions.
 - (b) Discharge Rates. The post-development peak stormwater discharge rates from the development site for the 10- and 100-year frequency, 24-hour duration storm events shall at no time exceed the pre-development peak stormwater runoff rates for the same design storm events, except as expressly permitted by this Chapter. Also the post-development peak stormwater discharge rate from the development site for the 2-year frequency, 24-hour duration storm event shall not exceed 50% of the pre-development peak stormwater runoff rate for the same design storm event.
 - (c) Closed Depression Analysis. Closed depressions shall be analyzed using hydrograph routing methods. Infiltration shall be addressed where appropriate. If a proposed project will discharge runoff to an existing closed depression of greater than 5,000 square feet of water surface area at overflow elevation, the following requirements must be met:
 - (i) CASE 1: The pre-development 100-year frequency, 7-day and 24-hour duration design storms from the drainage basin tributary to the closed depression are routed into the closed depression using only infiltration as outflow. If the pre-development design storms do not overflow the closed depression, no runoff may leave the site for the same storm events following development of a proposed project. This may be accomplished by excavating additional volume in the closed depression subject to all applicable requirements. If a portion of the depression is located off of the project site, impacts to adjacent properties shall be evaluated.
 - (ii) CASE 2: The pre-development 100-year frequency, 7-day and 24-hour duration design storm events from the drainage basin tributary to the closed depression are routed to the closed depression using only infiltration as outflow, and overflow occurs. The closed depression shall then be analyzed as a detention/infiltration pond. The required performance, therefore, shall not exceed the pre-development runoff rates for 50% of the 2-year and 100% of the 10-year and 100-year frequency, 24-hour duration and 100-year, 7-day duration design storms. This will require that a control structure, emergency overflow spillway, access road, downstream improvements, and other applicable design criteria be met. If the facility will be maintained by Skagit County, the closed depression shall be placed in a dedicated tract. If the facility will be privately maintained, the tract shall be located within a drainage easement. If a portion of the depression is located off of the project site, impacts to adjacent properties shall be evaluated.

- (iii) CASE 3: When a proposed project is contributory to a closed depression located off-site, the volume of runoff discharged may not be increased for the 2-, 10-, and 100-year frequency, 24-hour duration, and the 100-year frequency, 7-day duration storm events. The exception to this requirement is in the case where discharge would not result in an increase in water surface elevation of greater than 0.01 foot for the 100-year storm events.
 - (d) Large Developments shall provide Stormwater Quantity Control facilities designed to meet, as a minimum performance standard, the requirements of this Section, except in the following circumstances:
 - (i) The development site discharges directly into Puget Sound, or directly into the tidally influenced areas of rivers and streams discharging into Puget Sound where runoff quantity control is not required by other governmental agencies and streambank or shoreline erosion will not occur.
 - (ii) The development site discharges to a regional stormwater facility approved by the Administrative Official to receive the developed site runoff.
 - (iii) The development site discharges to a receiving body of water (lake, wetland, etc.) where it can be demonstrated by the applicant to the satisfaction of the Administrative Official that Stormwater Quantity Control is not warranted.
 - (e) In the event that conditions downstream from a proposed development site are determined by the Board to be exceptionally sensitive to potential stormwater discharges from the subject site, the Administrative Official may require a factor of safety be applied to the total retention/detention storage volume and/or a reduction of allowable stormwater release rates.
 - (f) Submittals for all proposed development projects shall include an analysis of downstream water quantity impacts resulting from the project and shall provide for mitigation of these impacts. The analysis shall extend a minimum of 1/4 of a mile downstream from the project. The existing or potential impacts to be evaluated and mitigated shall include, but not be limited to, excessive streambank erosion, flooding, surcharging of existing closed drainage conveyance facilities, discharge to closed depressions, exacerbation of landslide hazards, and discharge to existing off-site runoff control facilities.
 - (g) Private Retention/Detention facilities and open Stormwater Quantity Control facilities shall not be located in dedicated public road rights-of-way.
 - (h) Reasonable access for maintenance as determined by the Administrative Official shall be provided to all stormwater and drainage facilities.
 - (i) As the first priority, streambank erosion control BMPs shall utilize infiltration to the fullest extent practicable only if site conditions are appropriate and ground water quality is protected. Streambank erosion control BMPs shall be selected, designed, and maintained according to the Stormwater Design Manual. Streambank erosion control BMPs shall not be built within a natural vegetated buffer, except for necessary conveyance systems as approved by the Administrative Official.
 - (j) Where stormwater detention is proposed to meet stormwater quantity controls, volume correction factors as outlined in the Stormwater Design Manual shall be applied to increase pond size.
- (4) Stormwater Quality Control. Approved water quality BMPs shall be used to the maximum extent practicable to control pollution in stormwater. Water quality BMPs shall be used to comply with the standards of this Chapter, including those contained in the Stormwater Design Manual. Construction and post-development water quality BMPs shall be utilized for all Large Development activities. Said water quality BMPs shall provide runoff water quality treatment for all storm events with intensities less than or equal to the water quality design storm event, as defined in SCC 14.32.080(8)(b).
- (5) Illicit Discharges. Illicit discharges as described in SCC 14.32.090(2) or illicit connections to a stormwater drainage system as described in SCC 14.32.090(3), are prohibited. Violations of this Section, regardless of whether such violation is associated with a development activity, shall result in enforcement action being taken as prescribed in Chapter 14.44 SCC, Enforcement/Penalties. Any such violation shall also be subject to the mitigation requirements established by Chapter 14.24 SCC (Critical Areas) to fully mitigate for adverse impacts to critical areas or their buffers.
- (6) Experimental Best Management Practices (BMPs). In those instances where appropriate BMPs are not in the Stormwater Design Manual, experimental BMPs may be considered. In an effort to improve stormwater quality technology, experimental BMPs are encouraged as a means of solving problems in a manner not addressed by the Stormwater Design Manual. The Administrative Official must approve experimental BMPs. The Administrative

Official may require that the performance of experimental BMPs be monitored to document their effectiveness for future use.

- (7) Incorporation into Stormwater Quantity Control Facilities. Water quality BMPs may be incorporated into the design of Stormwater Quantity Control facilities where appropriate.
- (8) Minimum Requirements. The following Minimum Requirements for Stormwater Quality Control shall apply to all land developments that meet the definition of a Large Development:
 - (a) Source control of pollution. Source control BMPs shall be applied to all projects to the maximum extent practicable.
 - (b) Stormwater treatment BMPs. Treatment BMPs shall be sized to capture and treat developed runoff from the water quality design storm, defined as the 6-month frequency, 24-hour duration storm event. For the purpose of this Chapter, the precipitation from a 6-month frequency, 24-hour storm event shall be considered equivalent to 64% of the precipitation from a 2-year frequency, 24-hour duration storm event. All treatment BMPs shall be selected, designed, and maintained according to the Stormwater Design Manual.
 - (i) Stormwater treatment BMPs shall not be built within a natural vegetated buffer except for necessary conveyance systems as approved by the Administrative Official.
 - (c) Wetponds. Wetponds shall be required for development sites with greater than 5 acres of new impervious surface subject to motor vehicle use, which:
 - (i) Discharges directly to a regional facility, receiving body of water, or closed depression without providing on-site stormwater quantity control; or
 - (ii) Discharges directly or indirectly to a Class 1, 2, or 3 stream, or a Class 1 or 2 wetland within 1 mile downstream of the site.
 - (d) Presettling Basin. All stormwater, prior to discharge to a facility designed to utilize infiltration, shall pass through an appropriate stormwater treatment BMP designed to remove suspended solids.
 - (e) Water Quality Sensitive Areas. Where the Administrative Official determines that these Large Development Minimum Requirements do not provide adequate protection of water quality sensitive areas either on-site or within the drainage basin in which the development is located, more stringent controls shall be required to protect water quality. An adopted and implemented Basin Plan may be used to develop requirements for specific water quality sensitive areas.
 - (f) Downstream Analysis and Mitigation. All Large Developments shall conduct an analysis of downstream water quality impacts resulting from the project and shall provide for mitigation of these impacts. The analysis shall extend a minimum of 1/4 of a mile downstream from the project. The existing or potential impacts to be evaluated and mitigated shall include:
 - (i) Excessive sedimentation;
 - (ii) Streambank erosion;
 - (iii) Discharges to Critical Areas;
 - (iv) Violations of water quality standards, and spills; and
 - (v) Discharges of priority pollutants.
- (9) Stormwater Conveyance Facilities.
 - (a) All proposed developments must provide on-site Stormwater Conveyance Facilities, pipes, ditches, and storm drains. These facilities shall have sufficient capacity to convey without flooding or otherwise damaging existing or proposed structures, the post-development peak stormwater runoff rate resulting from a 100-year frequency, 24-hour duration storm event plus any existing upstream runoff that will be conveyed through the development site.
 - (b) Estimation of peak stormwater runoff rates used in the design of water conveyance facilities shall use either the Rational Method, Santa Barbara Urban Hydrograph Method or another hydrograph method of analysis accepted by the Director of Public Works.
 - (c) Existing drainage ways and/or other conveyance facilities downstream from proposed developments that are identified within the scope of the downstream portion of the off-site drainage analysis shall have sufficient capacity to convey without flooding or otherwise damaging existing or proposed structures, the post-development peak stormwater discharge for the 25-year storm event. All newly constructed downstream drainage ways and/or conveyance facilities shall have sufficient capacity to convey the post-development peak stormwater discharge for the 100-year storm event. Downstream improvements or additional on-site stormwater quantity control measures shall be provided to eliminate any potential downstream flooding or

other damage that may occur following completion of the proposed development. The Administrative Official has the authority to waive the requirement for downstream improvements.

- (d) Drainage through closed conveyance structures such as pipes shall not discharge directly onto the surface of a public road.
 - (e) All building footing drains and downspout drains shall be positively routed to an acceptable receiving drainage conveyance (stream, culvert, ditch, catch basins, etc.). Footing drains shall not be directly connected to downspout drains. These systems shall be designed so as not to allow backflow of other waters into the crawl space, footing drains or basements.
- (10) Easements, Tracts and Covenants.
- (a) Drainage easements shall be provided in a proposed development for all stormwater and drainage conveyance systems that are not located in public rights-of-way or tracts. Said drainage easements shall be granted to the parties responsible for providing on-going maintenance of the systems. Drainage easements through non-drainage structures are not permitted.
 - (b) Stormwater facilities that are to be maintained by Skagit County, together with maintenance access roads to said facilities, shall be located in public right-of-way, separate tracts dedicated to Skagit County, or drainage easements located in designated open space.
 - (c) All runoff from impervious surfaces, roof drains, and yard drains shall be directed so as not to adversely effect adjacent properties. Wording to this effect shall appear on the face of all final plats, and shall be contained in any covenants required for a development.
- (11) Wetlands. The following requirements apply only to situations where stormwater discharges directly to on-site or immediately adjacent off-site wetlands and must be met in addition to the requirements in Large Development Minimum Requirement of SCC 14.32.080(8), Stormwater Treatment BMPs:
- (a) Stormwater discharges to wetlands must be controlled and treated to the same extent as all other discharges with the goal of meeting State water quality and groundwater quality standards.
 - (b) Discharges to wetlands shall maintain the hydro period and flows of pre-development site conditions to the extent necessary to protect the characteristic functions of the wetland. Prior to discharging to a wetland, alternative discharge locations shall be evaluated and natural water storage and infiltration opportunities outside the wetland shall be maximized.
 - (c) Created wetlands that are intended to mitigate for loss of wetland acreage, function, and value shall not be designed to also treat stormwater.
 - (d) In order for constructed wetlands to be considered treatment systems, they must be constructed in areas which are not designated as Category I, II, or III wetlands or their buffers or in other areas which are not in conflict with designated Critical Areas and associated buffers. In addition they must be managed for stormwater treatment. If these systems are not managed and maintained in accordance with the Stormwater Design Manual for a period exceeding 3 years, these systems may no longer be considered constructed wetlands.
 - (e) Wetland BMPs shall not be built within a natural vegetated buffer except for necessary conveyance systems. Construction within or modification to Category IV wetlands and their buffers for the purpose of constructing or maintaining stormwater treatment and detention facilities may be allowed pursuant to SCC 14.24.230(3)(b).
- (12) Basin Planning. An adopted and implemented Basin Plan tailored to a specific basin may be used to develop requirements for source control, stormwater treatment, streambank erosion control, wetlands, and water quality sensitive areas. Adopted and implemented watershed-based Basin Plans may be used to modify any or all of the Minimum Requirements for stormwater quantity or quality control addressed in this Chapter. Such modifications will be accepted provided that the level of protection for surface or ground water achieved by the Basin Plan will equal or exceed that which would otherwise be achieved by implementation of the provisions of this Chapter in the absence of a Basin Plan. Basin plans shall evaluate and include as necessary retrofitting of BMPs for existing development and/or redevelopment in order to achieve watershed-wide pollutant reduction goals. Standards developed from Basin Plans shall not modify any of the above requirements until the Basin Plan is formally adopted and fully implemented by Skagit County.
- (13) Regional Facilities. When the Administrative Official has determined the public would benefit by the establishment of a regional stormwater facility which would serve as an alternative to the construction of separate on-site drainage facilities, the Administrative Official may recommend to the Board that a regional stormwater facility be constructed. This regional facility would serve more than 1 development in providing stormwater quantity and/or quality control. In the event that a regional stormwater facility is required by the Board, such a regional stormwater

facility shall be located outside of fish-bearing streams unless otherwise accepted by the Washington State Department of Fish and Wildlife. All future developments constructed on lands designated by the Board to be served by the regional facility shall, at the time of issuance of any permit for a development, be required to contribute a fair share to the cost of land purchase, design, and construction of said regional facility. In the event that a proposed regional stormwater facility is not yet in operation at the time of completion of construction of a development that is to be served by said regional facility, the applicant for said development shall be required to provide temporary stormwater quantity and quality controls. Temporary quantity and quality controls may be constructed in temporary easements rather than in separate tracts. (Ord. 17938 Attch. F (part), 2000)

14.32.090 Water quality.

- (1) Purpose. This Section implements the directive of the 1991 Puget Sound Water Quality Management Plan (Sec. EM-10. Enhanced Local Enforcement).
- (2) Illicit Discharges. Illicit discharges to stormwater drainage systems are prohibited.
- (3) Illicit Connections and Uses. Stormwater systems, both natural and artificial, may only be used to convey stormwater runoff. Stormwater System shall mean all natural and man-made systems that function together or independently to collect, store, purify, discharge, and convey stormwater. Included are all stormwater and drainage facilities as well as natural systems such as streams and creeks and all natural systems which convey, store, infiltrate, or divert stormwater. Violation of this Section shall result in enforcement action being taken as prescribed in Chapter 14.44 SCC.
 - (a) No person shall use this system, directly or indirectly, to dispose of any solid or liquid matter other than stormwater. No person shall make or allow any connection to the stormwater or drainage system that could result in the discharge of polluting matter.
 - (b) Unless specifically approved by both the Director of Public Works and the Building Official, connections to the stormwater system from the interiors of structures are prohibited.
 - (c) Connections to the stormwater system for any purpose other than to convey stormwater or groundwater are prohibited and shall be eliminated.
- (4) Pollution Control Device Maintenance. Owners and operators of wet ponds, bio-filtration/biofilter facilities, sediment and erosion control systems, infiltration systems, and any other pollution control devices shall operate and maintain such control devices to assure that performance meets the intended level of pollutant removal. Recommended maintenance schedules for these devices are included in the Stormwater Design Manual.
- (5) Test Procedure. In the event that water quality testing is utilized in determining whether a violation of this Section has occurred, said water quality test procedures shall be followed as described in the most recent edition of the Code of Federal Regulations, Part 136.
- (6) Exemptions. The following discharges are exempt from the provisions of this Section:
 - (a) The regulated effluent from any commercial or municipal facility holding a valid State or Federal wastewater discharge permit.
 - (b) Acts of God or nature not compounded by human negligence.
 - (c) Properly operating on-site domestic sewage systems.
 - (d) Properly applied agricultural and forestry chemicals and materials. (Ord. 17938 Attch. F (part), 2000)

14.32.100 Operation and maintenance.

- (1) Maintenance of Stormwater Facilities by Owners.
 - (a) Any person or persons holding title to a nonresidential property for which stormwater and drainage facilities and BMPs have been required by Skagit County shall be responsible for the continual operation, maintenance, and repair of said stormwater and drainage facilities and BMPs in accordance with the provisions of this Chapter.
 - (b) For privately maintained stormwater and drainage facilities, the maintenance requirements specified in this Chapter, including the Stormwater Design Manual, shall be enforced against the owner(s) of the drainage facility.
- (2) Certified Record Drawings. Prior to the intended use of a development constructed under a Site Development Permit, the owner shall provide the County with a complete and accurate set of reproducible as-built drawings. These record drawings shall be stamped and certified as accurate by a Professional Engineer and shall be accompanied by an approved Maintenance Plan.

- (3) Maintenance Plan Required for Privately Maintained Drainage Facilities.
 - (a) Prior to the intended use of a development constructed under a Site Development Permit, the owner shall record a Maintenance Plan that guarantees Skagit County that the stormwater and drainage facilities shall be properly operated, maintained, and inspected. The restrictions set forth in such Plan shall be included in any instrument of conveyance of the subject property and shall be recorded with the Skagit County Auditor.
 - (b) The Administrative Official may require:
 - (i) The owners of existing stormwater and drainage facilities for which Skagit County has not previously accepted operation and maintenance responsibility to record a Maintenance Plan; or
 - (ii) Request that Skagit County accept operation and maintenance responsibility for the stormwater and drainage facilities subject to the requirements of this Chapter.
 - (c) Maintenance Plans shall remain in force for the life of the development or until the responsibility for the operation and maintenance of the subject stormwater facilities is accepted by Skagit County.
- (4) County Acceptance of New Stormwater Facilities. Under certain unique circumstances the County, at the Department of Public Works' sole discretion, may elect to accept certain new residential stormwater facilities for maintenance. Only those constructed under an accepted Site Development Permit that meet the following conditions will be considered for acceptance:
 - (a) Improvements in residential subdivisions have been completed on at least 80% of the lots, unless waived by the Administrative Official;
 - (b) All drainage facilities have been inspected by the County and accepted by the Administrative Official and said drainage facilities have been in satisfactory operation for at least 2 years;
 - (c) All drainage facilities reconstructed during the maintenance period have been accepted by the Administrative Official;
 - (d) The stormwater and drainage facility as designed and constructed conforms to the provisions of this Chapter;
 - (e) All easements and tracts required under this Chapter entitling the County to properly operate and maintain the subject drainage facility have been conveyed to Skagit County and have been recorded with the Skagit County Auditor;
 - (f) For nonstandard drainage facilities, an operation and maintenance manual including a maintenance schedule has been submitted to and accepted by Skagit County; and
 - (g) The applicant has provided a complete and accurate set of reproducible as-built record drawings to Skagit County. These drawings shall be stamped and certified as accurate by a Professional Engineer and accompanied by an approved Maintenance Plan, and 1 complete set provided to Skagit County.
- (5) County Acceptance of Existing Stormwater Facilities. Skagit County may at the Department of Public Works' sole discretion accept for maintenance those stormwater and drainage facilities for residential developments existing prior to the effective date of this Chapter that meet the following conditions:
 - (a) Improvements in residential subdivisions have been completed on at least 80% of the lots;
 - (b) Data provided by the applicant and an inspection by the County has determined to the Administrative Official's satisfaction that the stormwater and drainage facilities are functioning as designed;
 - (c) The stormwater and drainage facilities have had at least 2 years of satisfactory operation and maintenance, unless otherwise waived by the Administrative Official;
 - (d) The person or persons holding title to the properties served by the stormwater and drainage facilities submit a petition containing the signatures of the title holders of more than 50% of the lots served by the stormwater and drainage facilities. The petition shall request the County maintain the stormwater and drainage facilities;
 - (e) All easements required under this Chapter entitling the County to properly operate and maintain the subject stormwater and drainage facilities have been conveyed to Skagit County and have been recorded with the Skagit County Auditor; and
 - (f) The person or persons holding title to the properties served by the stormwater and drainage facilities show proof of the correction of any defects in the drainage facilities, as required by the Administrative Official.
- (6) County Inspections of Privately Maintained Stormwater Facilities.
 - (a) The Administrative Official is authorized to develop an inspection program for privately owned and maintained stormwater and drainage facilities in Skagit County. The purpose of this inspection program shall be to determine if said stormwater and drainage facilities, conveyance structures, and water quality facilities are in good working order and are properly maintained, and to ensure that stormwater quality BMPs are in place and that non-point source pollution control is being implemented.

- (b) Whenever the provisions of the inspection program are being implemented, or whenever there is cause to believe that a violation of this Chapter has been or is being committed, the inspector is authorized to inspect during regular working hours and at other reasonable times. The inspectors may inspect any and all stormwater and drainage facilities within Skagit County to determine compliance with the provisions of this Chapter.
 - (c) Prior to making any inspections, the Administrative Official shall follow the procedures delineated in Chapter 14.44 SCC (Enforcement and Penalties).
- (7) Inspection Schedule. The Administrative Official is authorized to establish a master inspection and maintenance schedule to inspect appropriate stormwater and drainage facilities that are not owned and operated by Skagit County. These inspections shall be performed under the supervision of a Professional Engineer and the inspection results provided to the County. (Ord. 17938 Attch. F (part), 2000)

14.32.110 Critical drainage areas.

- (1) Special Drainage Improvements. In order to mitigate or eliminate potential drainage-related impacts on Critical Drainage Areas, the Administrative Official may require drainage improvements in excess of those required in other sections of this Chapter.
- (2) Designation. The following are designated as critical drainage areas:
 - (a) All areas designated as critical areas under Chapter 14.24 SCC;
 - (b) All lands within 200 feet of the ordinary high water mark of bodies of water possessing fish spawning and rearing habitat for anadromous and resident fish species, as designated by the State Department of Fish and Wildlife;
 - (c) Any lands that drain to a natural feature that is a closed depression;
 - (d) Any lands that are established by law as fish or shellfish protection areas;
 - (e) The Bayview Ridge Subarea; and
 - (f) Any lands determined by the Administrative Official to have a high potential for drainage and water quality problems and/or are sensitive to the effects of construction or development.
- (3) Conflicting Information. In the event of conflict between maps or other available information resources, the Administrative Official shall make the final determination of whether or not certain lands are Critical Drainage Areas. In making such a final determination, the Administrative Official may use detailed site surveys and/or other topographic data as required at the applicant's expense. (Ord. O20070003 § 2: Ord. 17938 Attch. F (part), 2000)