

**CITY OF PACIFIC
WASHINGTON
ORDINANCE NO. 1816**

AN ORDINANCE OF THE CITY OF PACIFIC, WASHINGTON AMENDING CHAPTERS 19.08 AND 24.08 OF THE PACIFIC MUNICIPAL CODE AND REPEALING CHAPTER 19.24 RELATING TO STORM WATER MANAGEMENT

WHEREAS, the State of Washington Department of Ecology has issued to the City of Pacific an NPDES Phase II permit; and

WHEREAS, the City Council of the City of Pacific has adopted by reference numerous stormwater codes for the health safety and welfare of the citizens as set forth in Pacific Municipal Code (PMC) Titles 19 and 24; and

WHEREAS, the City Council wishes to amend these PMC Titles in order to adopt by reference the updated Stormwater Codes,

NOW, THEREFORE, THE CITY COUNCIL OF PACIFIC, WASHINGTON, DOES ORDAIN AS FOLLOWS

(repealed language is noted by strike through and new language is in bold)

Section 1. That Chapter 19.08.050 and 19.08.090 relating to subdivisions are amended to read as follows:

19.08.050 Minimum improvements following approval of preliminary plat.

If the proposed plat is approved by the city council, the developer, before requesting final approval, shall elect, by a written statement, to carry out minimum improvements in accordance with the provisions of Chapters 19.16, 19.20 and ~~19.24~~**24.08** PMC by any of the following methods

A. By furnishing, at the election of the city, a plat or subdivision bond, letter of credit, or account set-aside, in a form approved by the city and in which assurance is given to the city the minimum improvements will be carried out as provided in Chapters 19.16, 19.20 and ~~19.24~~**24.08** PMC, and in accordance with the installation requirements. The amount of the performance assurance shall be 150 percent of the improvement cost and shall be for a period not to exceed two years;

B. By installing the minimum improvements in accordance with the provisions of Chapters 19.16, 19.20 and ~~19.24~~**24.08** PMC and city standards and specifications, under the supervision of the director;

C. By furnishing the city with a copy of the contract signed by a contractor and the developer of the proposed subdivision, under which the contractor has agreed to install the minimum improvements in accordance with the provisions of Chapters 19.16, 19.20 and ~~19.24~~**24.08** PMC and city standards and specifications. The developer shall furnish the city with a copy of the executed performance bond for installation of the minimum improvements, under which assurance is given that the contractor will install the minimum improvements in accordance with the provisions of Chapters 19.16, 19.20 and ~~19.24~~**24.08** PMC and city standards and specifications. The amount of the performance bond shall be 150 percent of the improvement cost and shall be for a period not to exceed two years; and

D. By a combination of these methods. The city reserves the right, in addition to all other remedies available to it by law, to proceed against such bond. In case of any suit or action to enforce any provisions of this chapter, the developer shall pay unto the city all costs incidental to such litigation including reasonable attorneys' fees. (Ord. 1505 § 10, 2001; Ord. 1363 § 7, 1998; Ord. 951, 1984).

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19.08.090 Completion of improvements – Letters of approval.

After satisfactory completion of all improvements or guarantee of completion of all improvements pursuant to PMC 19.08.050, the director shall verify that the developer has satisfactorily completed the required installation in accordance with the provisions of Chapters 19.16, 19.20 and ~~19.24~~**24.08** PMC, and in accordance with city standards and specifications. The director shall transmit one copy of such letter to the developer, together with a notice advising the developer to prepare a final plat for that portion of the area contained in the proposed subdivision in which minimum improvements have been installed or are guaranteed to be installed and covered by the letter of approval issued by the director. (Ord. 1505 § 10, 2001; Ord. 1363 § 9, 1998; Ord. 1180 § 12, 1992; Ord. 951, 1984).

Section 2. That Chapter 19.24 relating to Drainage Plans is repealed in its entirety.

~~19.24.010 Purpose.~~

~~The city council finds that this chapter is necessary in order to promote sound development policies and construction procedures which respect and preserve the city's watercourses; to minimize water quality degradation and control the sedimentation of creeks, streams, ponds, lakes and other water bodies; to protect property owners adjacent to developing and developed land from increased runoff rates which could cause erosion of abutting property; to protect downstream owners; to preserve and enhance the suitability of waters for contact recreation and fishing; to preserve and enhance the aesthetic quality of the waters; to maintain and protect valuable ground water resources; to minimize adverse effects of alterations in groundwater or quantities, locations, and flow patterns; to ensure the safety of city roads and rights of way; and to decrease drainage related damage to public and private property. (Ord. 951, 1984)~~

~~19.24.020 Definitions.~~

~~For the purposes of this chapter the following words shall have the meanings ascribed to them as follows:~~

- ~~A. "Comprehensive drainage plan" refers to a detailed analysis for each drainage basin which compares the capabilities and needs for runoff accommodation due to various combinations of development, land use, and structural and nonstructural management alternatives. The plan recommends the form, location and extent of quantity and quality control measures which optimally would meet the legal constraints, water quality standards, and community standards, as well as identifying the institutional and funding requirements for plan implementation.~~
- ~~B. "Bio-swale" shall mean a grass-lined swale designed to accept, store, and biologically filter stormwater runoff.~~
- ~~C. "Computations" means calculations, including coefficients and other pertinent data, made to determine the drainage plan with rates of flow of water given in cubic feet per second and cubic meters per second (cms).~~
- ~~D. "Critical area" means as defined in PMC Title 23.~~
- ~~E. "Design storm" refers to that rainfall event, which is selected by the city for purposes of design, specifying both the return period in years and the duration in hours.~~
- ~~F. "Detention facilities" means facilities designed to hold runoff while gradually releasing it as a predetermined maximum rate.~~
- ~~G. "Developer" means the individual(s) or corporation(s) applying for the permits or approvals described in PMC 19.24.030.~~

- H. —“Developmental coverage” means all developed surface areas within the subject property including, but not limited to, rooftops, driveways, carports, accessory building, parking areas, and any other impervious surfaces. During construction, developmental coverage includes the above in addition to the full extent of any alteration of previously occurring soils, slope or vegetation due to grading, temporary storage, access areas, or any other short term causes.
- I. —“Drainage area” means the watershed contributing water runoff to and including the subject property.
- J. —“Drainage plan” means a plan for collection, transport, treatment, and discharge or recycle of water within the subject property.
- K. —“Drainage treatment/abatement facilities” means any facilities installed or constructed in conjunction with a drainage plan for the purpose of treatment or abatement of urban runoff, excluding retention or detention facilities.
- L. —“Natural location” of drainage systems refers to the location of those channels, swales, and other non-manmade conveyance systems as defined by the first documented topographic contours existing for the subject property, either from maps or photographs, or such other means as appropriate.
- M. —“Peak discharge” means the maximum surface water runoff rate (cfs and cms) determined for the design storm.
- N. —“Planned unit development (PUD)” or “planned residential development (PRD)” refers to residential developments which are planned and/or developed in several stages but submitted together for approvals, and which typically consist of clusters of multi-unit structures interspersed with areas of common open space.
- O. —“Procedures manual” means the manual of technical and administrative procedures established by the city which delineates methods to be used, the level of detail of analysis required, and other details for implementation of the provisions of this chapter.
- P. —“Receiving bodies of water” means creeks, streams, lakes and other bodies of water into which waters are directed, either naturally, in manmade ditches, or in closed conduit systems.
- Q. —“Retention facilities” means facilities designed to hold water for a considerable length of time and then consume it by evaporation, plant transpiration, or infiltration into the soil.
- R. —“Subject property” means the tract of land which is the subject of the permit and/or approval action, as defined by the full legal description of all parcels involved in the proposed development. (Ord. 1505 § 10, 2001; Ord. 951, 1984).

19.24.030 Drainage plan—Submission.

- A. —All developers applying for any of the following permits and/or approvals shall submit for approval a drainage plan with their application and/or request:
 - A. —Grading permit;
 - B. —Substantial development permit required under Chapter 90.58 RCW (Shoreline Management Act);
 - C. —Subdivision approval;
 - D. —Short plat approval (industrial and commercial);
 - E. —Conditional use permit;
 - F. —Building permit where the permit relates to 5,000 or more square feet of development coverage within the property, or where development is in a critical area;
 - G. —Planned unit (residential) development

- B.—Commencement of construction work under any of the permits or applications mentioned in subsection A of this section shall not begin until such time as final approval of the drainage plan is obtained in accordance with PMC 19.24.050.
- C.—The same plan submitted during one permit/approval process may be subsequently submitted with further required applications. The plan shall be supplemented with such additional information that is requested by the city engineer.
- D.—The plan requirement established in this section shall apply except when the developer demonstrates to the satisfaction of the city engineer that the proposed activity of development:
 - 1.—Will neither seriously nor adversely impact the water quality conditions or any affected received bodies of water;
 - 2.—Will not alter the surface discharge location, alter the drainage pattern on adjoining properties, alter drainage patterns, increase the discharge, nor cause any other adverse effects in the drainage area; and
 - 3.—Will not alter the subsurface drainage patterns, flow rates, and discharge points, nor result in any significant adverse effects to property or residents. (Ord. 1505 § 10, 2001; Ord. 951, 1984).

19.24.040 Drainage plan — Contents.

All developers applying for any of the permits and/or approvals contained in PMC 19.24.030(A) shall provide a drainage plan for surface and pertinent subsurface water flows entering, flowing within, and leaving the subject property both during and after construction. The detailed form and contents of the drainage plan shall be prepared by a registered professional civil engineer and shall be prepared in accordance with procedures established by the city engineer. The procedures will set forth the manner of presenting the following required information:

A.—Background Computations for Sizing Drainage Facilities:

- 1.—Depiction of the drainage area on a topographical map of approved scale and contour interval, with acreage of the site, development, and development coverage indicated;
- 2.—Indication of the peak discharge and volume of surface water currently entering and leaving the subject property due to the design storm;
- 3.—Indication of the peak discharge and volume of runoff which will be generated due to the design storm within the subject property if the development or proposed activity is allowed to proceed

B.—Proposed measures for handling the computed runoff at the detail level specified in the procedures manual

C.—Proposed measures for controlling runoff during construction

The requirements of this section may be modified at the discretion of the city engineer in special cases requiring additional information. (Ord. 1505 § 10, 2001; Ord. 951, 1984).

19.24.050 Drainage plan — Review and approval.

All storm drainage plans prepared in connection with any of the permits and/or approvals listed in PMC 19.24.030(A) shall be submitted for review by and approval of the city engineer. At the time of approval of the drainage plan for the subject property, a schedule for inspection of construction and facilities will be established by the city engineer. (Ord. 951, 1984).

19.24.060 Storm sewer permits — Fees.

There shall be a storm sewer permit fee as established by city resolution to cover plan checking, inspection, as-built drawings and processing of permit information, and shall be charged for all development except single family residential. (Ord. 1375 § 49, 1998; Ord. 951, 1984).

19.24.070 Mandatory requirements for drainage improvements.

A. Drainage improvement requirements are as follows

1. Surface water entering the subject property shall be received at the naturally occurring locations and surface water exiting the subject property shall be discharged at the natural locations with adequate energy dissipaters within the subject property to minimize downstream damage and with no diversion at any of these points; and
 2. The design storm peak discharge from the subject property may not be increased by the proposed development; and
 3. Retention/detention facilities must be provided in order to maintain surface water discharge rates at or below the existing design storm peak discharge; and
 4. Closed systems shall be used to handle drainage within the subject property. The system will be a minimum of 10 feet from all structures. Open channel systems may be constructed with the approval of the city engineer
- To the extent possible, approved measures for controlling runoff during construction should comply with the provisions of subsection A of this section
 - Variances from the requirements of subsection A of this section may be permitted only after a determination by the engineer, using the comprehensive drainage plan, if available, and/or employing the following criteria:
 1. Sufficient capacity of downstream facilities under design conditions
 2. Maintenance of the integrity of the receiving waters
 3. Possibility of adverse effects of retention/detention
 4. Utility of regional retention/detention facilities
 5. Capability of maintenance of the system; and
 6. Structural integrity of abutting foundations and structures

Request for variances shall be filed in writing with the city clerk and shall adequately detail the basis for granting an exemption. (Ord. 951, 1984).

19.24.080 Development in critical areas.

Development which would increase the volume or rate of discharge due to any storm from the subject property shall not be permitted in critical areas. Critical areas are those in which existing flooding, drainage, erosion, and/or instability conditions present an imminent likelihood of harm to the welfare and safety of the surrounding community, or to the integrity of the surface water or groundwater system. Development shall not be permitted in these critical areas until such time as the existing community hazard is alleviated and it is adequately demonstrated that the proposed development will not cause a recurrence of the problem nor the occurrence of any new drainage related problem. The city may also designate as critical any area in which comparable problems would occur in the future due to any increase in volume or peak discharge. The requirements of this section shall apply regardless of any variance under PMC 19.24.070(C). Where application of the provisions of this section will deny all reasonable uses of the property, the restrictions on development contained in this section may be waived for the subject property; provided, that the resulting development shall be subject to all the remaining terms and conditions of the chapter. All decisions based on the provisions of this section shall be compatible with the comprehensive drainage plan, if available, for the basin in which the subject property is located. For development in areas designated as critical, the developer shall provide

information regarding volume and rate of discharge for a range of storms. (Ord. 1505 § 10, 2001; Ord. 951, 1984).

~~19.24.090 Establishment of regional facilities.~~

~~In the event that public benefits would accrue due to modification of the drainage plan for the subject property to better implement the recommendations of the comprehensive drainage plan, the director may recommend that the city should assume responsibility for the further design, construction, operation, and maintenance of drainage facilities on the subject property. Such decision shall be made concurrently with review and approval of the plan as specified in PMC 19.24.050. In the event that the city decides to assume responsibility for design, construction, operation, and maintenance of the facilities, the developer will be required to contribute a pro-rata share to the construction cost of the facilities. The developer may be required to supply additional information at the request of the city engineer to aid in the determination by the city. (Ord. 1505 § 10, 2001; Ord. 951, 1984).~~

~~19.24.100 Operation and maintenance procedures.~~

~~It shall be the responsibility of the developer to make arrangements with the occupants or owners of the subject property for assumption of operation and maintenance in a manner subject to the approval of the city engineer. The city may inspect the facilities in order to ensure continued use of the facilities for the purposes for which they were built and in accordance with these arrangements. Failure to maintain the facilities in good working order shall be cause for a written request to maintain the retention/detention facilities after inspection by city forces. If, after 30 days, no remedial measures are taken by the property owner, the city may initiate legal action against the property owner. (Ord. 951, 1984).~~

~~19.24.110 Applicability to governmental entities.~~

~~All municipal corporations and governmental entities shall be required to submit a drainage plan and comply with the terms of this chapter when developing and/or improving land including, but not limited to, road building and widening, within the areas of the city. It is recognized that other city, county, state, and federal permit conditions may apply to the proposed action and that compliance with the provisions of this chapter does not constitute compliance with such other requirements. (Ord. 951, 1984).~~

~~19.24.115 Work in city right of way.~~

~~All storm drainage improvements to be constructed in city rights of way shall be constructed under the supervision of the city engineer. The city shall provide all construction staking of storm drainage improvements in city rights of way, the cost of which shall be paid by the developer. Construction shall not start until construction staking for the improvements has been provided. (Ord. 987 § 6, 1986).~~

~~19.24.120 Appeals.~~

~~Repealed by Ord. 1505. (Ord. 951, 1984).~~

~~19.24.130 Protection of public/private rights.~~

~~Implementation of any provision of this chapter shall not cause nor be construed as an infringement of the rights of individuals, municipalities, or corporations other than the developer seeking a permit or approval as described in PMC 19.24.030. (Ord. 951, 1984).~~

~~19.24.140 Developer extension agreement.~~

~~Any developer extension agreement for construction of storm and surface water facilities pursuant to Chapter 35.91 RCW shall be in a form authorized by city council resolution. (Ord. 1263 § 4, 1995)~~

Section 3. That Chapter 24.08.040 relating to stormwater management definitions is amended to read as follows:

24.08.040 Definitions.

For the purposes of this chapter, **the definitions found within: the latest King County Surface Water Design Manual; the latest Department of Ecology Western Washington Phase II Municipal Stormwater Permit, Appendix 1 – Minimum Technical Requirements;** and the following definitions shall apply:

“Approval” means the proposed work or completed work conforms to this chapter in the opinion of the director.

“As-graded” means the extent of surface conditions on completion of grading.

“Authorized enforcement agency” means employees or designees of the public works director of the city of Pacific designated to enforce this code.

~~“Basin plan” means a plan and all implementing regulations and procedures including but not limited to land use management adopted by ordinance for managing surface and stormwater management facilities and features within individual sub-basins.~~

~~“Bench” means a relatively level step excavated into earth material on which fill is to be placed.~~

~~“Best management practice” or “BMP” means schedules of activities, prohibitions of practices, general good housekeeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to stormwater, receiving waters, or stormwater conveyance systems. BMPs also include treatment practices, operating procedures, and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage.~~

~~“Civil engineer” means a professional engineer licensed in the state of Washington in civil engineering who is experienced and knowledgeable in the practice of soils 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.~~

“Clean Water Act” means the federal Water Pollution Control Act (33 U.S.C. Section 1251 et seq.), and any subsequent amendments thereto.

~~“Clearing” means the destruction and removal of vegetation by manual, mechanical, or chemical methods.~~

“Commercial agriculture” means those activities conducted on lands defined in RCW 84.34.020(2), and activities involved in the production of crops or livestock for wholesale trade. An activity ceases to be considered commercial agriculture when the area on which it is conducted is proposed for conversion to a nonagricultural use or has lain idle for more than five years, unless the idle land is registered in a federal or state soils conservation program, or unless the activity is maintenance of irrigation ditches, laterals, canals, or drainage ditches related to an existing and ongoing agricultural activity.

“Compaction” means densification of a fill by mechanical means.

~~“Construction activity” means activities subject to NPDES construction permits. Currently these include construction projects resulting in land disturbance of five acres or more. Beginning in March 2003, NPDES stormwater phase II permits will be required for construction projects resulting in land disturbance of one acre~~

or more. Such activities include but are not limited to clearing and grubbing, grading, excavating, and demolition.

"Critical areas" means, at a minimum, areas which include wetlands, areas with a critical recharging effect on aquifers used for potable water, fish and wildlife habitat conservation areas, frequently flooded areas, geologically hazardous areas, including unstable slopes, and associated areas and ecosystems.

"Design storm" means a prescribed hyetograph and total precipitation amount (for a specific duration recurrence frequency) used to estimate runoff for a hypothetical storm of interest or concern for the purposes of analyzing existing drainage, designing new drainage facilities or assessing other impacts of a proposed project on the flow of surface water. (A hyetograph is a graph of percentages of total precipitation for a series of time steps representing the total time during which the precipitation occurs.)

"Detention" means the release of stormwater runoff from the site at a slower rate than it is collected by the stormwater facility system, the difference being held in temporary storage.

"Detention facility" means an above or below ground facility, such as a pond or tank, that temporarily stores stormwater runoff and subsequently releases it at a slower rate than it is collected by the drainage facility system. There is little or no infiltration of stored stormwater.

"Drainage basin" means a geographic and hydrologic subunit of a watershed.

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

"Ecology" means the Washington State Department of Ecology.

"Engineering geologist" means a geologist experienced and knowledgeable in engineering geology.

"Engineering geology" 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.

"Erosion" means the wearing away of the land surface by running water, wind, ice, or other geological agents, including such processes as gravitational creep. "Erosion" also means the detachment and movement of soil or rock fragments by water, wind, ice, or gravity.

"Excavation" means the mechanical removal of earth material.

"Existing site conditions" means:

1. For developed sites with stormwater facilities that have been constructed to meet the standards in the minimum requirements of the manual, "existing site conditions" shall mean the existing conditions on the site.

2. For developed sites that do not have stormwater facilities that meet the minimum requirements, "existing site conditions" shall mean the conditions that existed prior to local government adoption of a stormwater management program.

If in question, the existing site conditions shall be documented by aerial photograph records or other appropriate means:

3. For all sites in water quality sensitive areas as identified under minimum requirement No. 7, water quality sensitive areas, as set forth in PMC 24.08.260, "existing site conditions" shall mean undisturbed forest, for the purpose of calculating runoff characteristics.

~~4. For all undeveloped sites outside of water quality sensitive areas, "existing site conditions" shall mean the existing conditions on the site.~~

~~"Experimental BMP" means a BMP that has not been tested and evaluated by the Department of Ecology in collaboration with local governments and technical experts.~~

~~"Fill" means a deposit of earth material placed by artificial means.~~

~~"Forest practice" means any activity conducted on or directly pertaining to forest land and relating to growing, harvesting, or processing timber, including but not limited to:~~

- ~~1. Road and trail construction.~~
- ~~2. Harvesting, final and intermediate.~~
- ~~3. Precommercial thinning.~~
- ~~4. Reforestation.~~
- ~~5. Fertilization.~~
- ~~6. Prevention and suppression of diseases and insects.~~
- ~~7. Salvage of trees.~~
- ~~8. Brush control.~~

~~"Frequently flooded areas" means the 100-year floodplain designations of the Federal Emergency Management Agency and the National Flood Insurance Program.~~

~~"Geologically hazardous areas" means areas that because of their susceptibility to erosion, sliding, earthquake or other geological events, are not suited to the siting of commercial, residential or industrial development consistent with public health or safety concerns.~~

~~"Grade" means the slope of a road, channel, or natural ground. The finished surface of a canal bed, roadbed, top of embankment, or bottom of excavation; any surface prepared for the support of construction such as paving or the laying of a conduit.~~

~~Types of grade include:~~

- ~~1. Existing Grade. The grade prior to grading.~~
- ~~2. Rough Grade. The stage at which the grade approximately conforms to the approved plan.~~
- ~~3. Finish Grade. The final grade of the site which conforms to the approved plan.~~

~~(To) "Grade" means to finish the surface of a canal bed, roadbed, top of embankment or bottom of excavation.~~

~~"Gradient terrace" means an earth embankment or a ridge and channel constructed with suitable spacing and an acceptable grade to reduce erosion damage by intercepting surface runoff and conducting it to a stable outlet at a stable nonerosive velocity.~~

~~"Groundwater" means water in a saturated zone or stratum beneath the surface of land or a surface water body.~~

~~"Hydroperiod" means the seasonal occurrence of flooding and/or soil saturation; it encompasses depth, frequency, duration, and seasonal pattern of inundation.~~

~~"Illegal discharge" means any direct or indirect non-stormwater discharge to the stormdrain system, except as exempted in PMC 24.08.120(F).~~

~~"Illicit connections" means either of the following:~~

- ~~1. Any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the storm drain system including but not limited to any conveyances which allow any non-stormwater discharge including sewage, process wastewater, and wash water to enter the storm drain system and any connections to the storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by an authorized enforcement agency; or~~
- ~~2. Any drain or conveyance connected from a commercial or industrial land use to the storm drain system which has not been documented in plans, maps, or equivalent records and approved by an authorized enforcement agency.~~

~~"Illicit discharge" means all non-stormwater discharges to stormwater drainage systems that cause or contribute to a violation of state water quality, sediment quality or groundwater quality standards, including but not limited to sanitary sewer connections, industrial process water, interior floor drains, car washing and greywater systems.~~

~~"Impervious surface" means a surface area which either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development, and/or a surface area which causes water to run off the surface in greater quantities or at an increased rate of flow from the flow present under natural conditions prior to development. Common impervious surfaces include, but are not limited to, roof tops, walkways, patios, driveways, parking lots or storage areas (gravel or paved), concrete or asphalt paving, gravel roads or driveways, packed earthen materials, and oiled, macadam or other surfaces which similarly impede the natural infiltration of stormwater. Open, uncovered retention/detention facilities shall not be considered as impervious surfaces.~~

~~"Industrial activity" means activities subject to NPDES industrial permits as defined in 40 CFR Section 122.26(b)(14).~~

~~"Interflow" means that portion of rainfall that infiltrates into the soil and moves laterally through the upper soil horizons until intercepted by a stream channel or until it returns to the surface, for example, in a wetland, spring or seep.~~

~~"Land disturbing activity" means any activity that results in a change in the existing soil cover (both vegetative and nonvegetative) and/or the existing soil topography. Land disturbing activities include but are not limited to demolition, construction, clearing, grading, filling and excavation.~~

~~"Large parcel erosion and sediment control plan" or "large parcel ESC plan" means a plan to implement BMPs to control pollution generated during land disturbing activity. Guidance for preparing a large parcel ESC plan is contained in the manual. [Note: Ecology will add a sample large parcel ESC plan to this guidance manual.]~~

~~"Mitigation" means, in the following order of preference:~~

- ~~1. Avoiding the impact altogether by not taking a certain action or part of an action;~~

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2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts;
3. Rectifying the impact by repairing, rehabilitating or restoring the affected environment;
4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
5. Compensation for the impact by replacing, enhancing, or providing substitute resources or environments.

~~“National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit” means a permit issued by the EPA (or by a state under authority delegated pursuant to 33 U.S.C. Section 1342(b)) that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.~~

~~“Natural location” means the location of those channels, swales, and other nonmanmade conveyance systems as defined by the first documented topographic contours existing for the subject property, either from maps or photographs, or such other means as appropriate.~~

~~“New development” means the following activities: land disturbing activities, structural development, including construction, installation or expansion of a building or other structure; creation of impervious surfaces; Class IV general forest practices that are conversions from timber land to other uses; and subdivision and short subdivision of land as defined in RCW 58.17.020. All other forest practices and commercial agriculture are not considered new development.~~

~~“Nonstormwater discharge” means any discharge to the storm drain system that is not composed entirely of stormwater.~~

~~“Permanent stormwater quality control (PSQC) plan” means a plan which includes permanent BMPs for the control of pollution from stormwater runoff after construction and/or land disturbing activity has been completed. For small sites, this requirement is met by implementing a small parcel erosion and sediment control site drainage plan. Guidance on preparing a PSQC plan is contained in the manual. [Note: Ecology will add a sample large parcel ESC plan to this guidance manual.]~~

~~“Person” means any individual, partnership, corporation, association, organization, cooperative, public or municipal corporation, agency of the state, or local government unit, however designated.~~

~~“Pollution” means contamination or other alteration of the physical, chemical, or biological properties of waters of the state, including change in temperature, taste, color, turbidity, or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the state as will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to the public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life.~~

~~“Premises” means any building, lot, parcel of land, or portion of land whether improved or unimproved including adjacent sidewalks and parking strips.~~

~~“Public works director” means the person holding the position of the public works director of the city of Pacific, or his or her designee.~~

~~“Redevelopment” means, 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, and/or~~

replacement of an impervious surface that is not part of a routine maintenance activity, and land-disturbing activities associated with structural or impervious redevelopment.

"Regional retention/detention system" means a stormwater quantity control structure designed to correct existing excess surface water runoff problems of a basin or subbasin. The area downstream has been previously identified as having existing or predicted significant and regional flooding and/or erosion problems. This term is also used when a detention facility is used to detain stormwater runoff from a number of different businesses, developments or areas within a catchment.

"Retention/detention facility (R/D)" means a type of drainage facility designed either to hold water for a considerable length of time and then release it by evaporation, plant transpiration, and/or infiltration into the ground; or to hold surface and stormwater runoff for a short period of time and then release it to the surface and stormwater management system.

"Site" means the portion of a piece of property that is directly subject to development.

"Slope" means the degree of deviation of a surface from the horizontal; measured as a numerical ratio, percent, or in degrees. Expressed as a ratio, the first number is the horizontal distance (run) and the second is the vertical distance (rise), as 2:1. A 2:1 slope is a 50 percent slope. Expressed in degrees, the slope is the angle from the horizontal plane, with a 90-degree slope being vertical (maximum) and a 45-degree being a 1:1 or 100 percent slope.

"Small parcel erosion and sediment control site drainage plan" or "small parcel ESC plan" means a plan for small sites to implement temporary BMPs to control pollution generated during the construction phase only, and to minimize erosion and sediment. Guidance for preparing a small parcel ESC site drainage plan is contained in the manual.

"Soil" means the unconsolidated mineral and organic material on the immediate surface of the earth that serves as a natural medium for the growth of land plants.

"Source control BMP" means a BMP that is intended to prevent pollutants from entering stormwater. A few examples of source control BMPs are erosion control practices, maintenance of stormwater facilities, constructing roofs over storage and working areas, and directing wash water and similar discharges to the sanitary sewer or a dead end sump.

"Stormwater" means that portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, channels or pipes into a defined surface water channel, or a constructed infiltration facility.

"Stormwater drainage system" means constructed and natural features which function together as a system to collect, convey, channel, hold, inhibit, retain, detain, infiltrate, divert, treat or filter stormwater.

"Stormwater facility" means a constructed component of a stormwater drainage system, designed or constructed to perform a particular function, or multiple functions. Stormwater facilities include, but are not limited to, pipes, swales, ditches, culverts, street gutters, detention basins, retention basins, constructed wetlands, infiltration devices, catch basins, oil/water separators, sediment basins and modular pavement.

"Stormwater management manual" or "manual" means the manual, or manuals, adopted by reference and approved by Ecology that contains BMPs to prevent or reduce stormwater pollution.

"Stormwater pollution prevention plan" means a document which describes the best management practices and activities to be implemented by a person or business to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to stormwater, stormwater conveyance systems, and/or receiving waters to the maximum extent practicable.

~~“Stormwater site plan” or “drainage plan” means an engineering plan that includes an erosion and sediment control (ESC) plan and/or a technical information report that addresses the permanent stormwater quality control plan (PSQCP). For small sites, this plan is the equivalent of a small parcel erosion and sediment control site drainage plan. Guidance on preparing the elements of a stormwater site plan is contained in the manual.~~

“Toe of slope” means a point or line of slope in an excavation or cut where the lower surface changes to horizontal or meets the existing ground slope.

“Top of slope” means a point or line on the upper surface of a slope where it changes to horizontal or meets the original surface.

~~“Treatment BMP” means a BMP that is intended to remove pollutants from stormwater. A few examples of treatment BMPs are detention ponds, oil/water separators, biofiltration swales and constructed wetlands.~~

“Unstable slopes” means those sloping areas of land which have in the past exhibited, are currently exhibiting, or will likely in the future exhibit mass movement of earth.

“Wastewater” means any water or other liquid, other than uncontaminated stormwater, discharged from a facility.

“Water body” means surface waters including rivers, streams, lakes, marine waters, estuaries, and wetlands.

~~“Watershed” means a geographic region within which water drains into a particular river, stream, or body of water as identified and numbered by the State of Washington Water Resource Inventory Areas (WRIAs) as defined in Chapter 173-500 WAC.~~

“Vegetation” means all organic plant life growing on the surface of the earth. (Ord. 1726 § 1, 2009; Ord. 1482 § 1, 2000).

Section 3. That Chapter 24.08.100 relating to stormwater management manuals is amended to read as follows:

24.08.100 Stormwater management manuals adopted.

The latest edition of King County’s Surface Water Design Manual; and the King County Stormwater Pollution ~~Control~~ **Prevention** Manual; are hereby adopted by reference and are collectively hereinafter referred to as the manual. If there is any conflict between this chapter and the requirements of the manual, the chapter shall prevail. (Ord. 1482 § 1, 2000).

Section 4. That Chapter 24.08.130 through Chapter 24.08.310 relating to stormwater management are amended to read as follows:

~~**24.08.130 Small parcel site minimum requirements.**~~

~~A. The following new development shall be required to control erosion and sediment during construction, to permanently stabilize soil exposed during construction, to comply with small parcel site drainage requirements Nos. 1 through 5 as set forth in PMC 24.08.140 through 24.08.180:~~

~~1. Individual, detached, single-family residences and duplexes less than 10,000 square feet in total impervious surface area:~~

~~2. Creation or addition of less than 5,000 square feet of impervious surface area:~~

~~3. Land-disturbing activities of less than one acre:~~

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~~4. Does not drain to wetlands or identified critical area.~~

~~B. Compliance shall be demonstrated through the implementation of an approved small parcel erosion and sediment control site drainage plan. (Ord. 1482 § 1, 2000).~~

~~**24.08.140 Small parcel requirement No. 1 — Construction access route.**~~

~~Construction vehicle access shall be, whenever possible, limited to one route. Access points shall be stabilized with quarry spall or crushed rock to minimize the tracking of sediment onto public roads. (Ord. 1482 § 1, 2000).~~

~~**24.08.150 Small parcel requirement No. 2 — Stabilization of denuded areas.**~~

~~All exposed soils shall be stabilized by suitable application of BMPs, including but not limited to sod or other vegetation, plastic covering, mulching, or application of ground base on areas to be paved. All BMPs shall be selected, designed and maintained in accordance with an approved manual. From October 1st through April 30th, no soils shall remain exposed for more than two days. From May 1st through September 30th, no soils shall remain exposed for more than seven days. (Ord. 1482 § 1, 2000).~~

~~**24.08.160 Small parcel requirement No. 3 — 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. (Ord. 1482 § 1, 2000).~~

~~**24.08.170 Small parcel requirement No. 4 — Maintenance.**~~

~~All erosion and sediment control BMPs shall be regularly inspected and maintained to ensure continued performance of their intended function. (Ord. 1482 § 1, 2000).~~

~~**24.08.180 Small parcel requirement No. 5 — Other BMPs.**~~

~~As required by the manual, local plan approval authority, other appropriate BMPs to mitigate the effects of increased runoff shall be applied. (Ord. 1482 § 1, 2000).~~

~~**24.08.190 Large development minimum requirements.**~~

~~A. New Development:~~

~~1. All new development that includes the creation or addition of 5,000 square feet, or greater, of new impervious surface area, and/or land disturbing activity of one acre or greater, shall comply with minimum requirements Nos. 1 through 11, as set forth in PMC 24.08.200 through 24.08.300. Compliance shall be demonstrated through the implementation of an approved stormwater site plan consisting of large parcel engineering plan that includes an ESC plan and a PSQC plan technical information report, as appropriate.~~

~~2. All new development that includes the creation or addition of 5,000 square feet, or greater, of new impervious surface area, and land disturbing activity of less than one acre, shall comply with minimum requirements Nos. 2 through 11, as set forth in PMC 24.08.210 through 24.08.300, and the small parcel minimum requirements, as set forth in PMC 24.08.140 through 24.08.180. Compliance shall be demonstrated through the implementation of an approved stormwater site plan that includes a small parcel erosion and sediment control plan and a PSQC plan. This section does not apply to the construction of individual, detached, single family residences and duplexes. Those types of new development are included in the small parcel minimum requirements.~~

B. Redevelopment.

1. Where redevelopment of 5,000 square feet occurs, new development minimum requirements Nos. 1 through 11, as set forth in PMC 24.08.200 through 24.08.300, shall apply to that portion of the site that is being redeveloped, and source control BMPs shall be applied to the entire site, including adjoining parcels if they are part of the project.

2. In addition to the above requirements, where one or more of the following conditions apply, a stormwater management plan shall be prepared that includes a schedule for implementing the minimum requirements to the maximum extent practicable, for the entire site, including adjoining parcels if they are part of the project. An adopted and implemented basin plan (minimum requirement No. 9) may be used to develop redevelopment requirements that are tailored to a specific basin, as follows:

a. Existing sites greater than one acre in size with 50 percent 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(I)(1)(A)(i), 304(I)(1)(A)(ii), or 304(I)(1)(B) of the Clean Water Act as not expected to meet water quality standards or water quality goals; and

iii. Listed in Washington State's Nonpoint Source Assessment required under Section 319(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, the watershed ranking process under Chapter 400-12 WAC, or through Growth Management Act planning. (Ord. 1482 § 1, 2000).

24.08.200 Minimum requirement No. 1 – Erosion and sediment control Preparation of Stormwater Site Plans.

A. All new development and redevelopment that includes land disturbing activities of more than one acre shall comply with erosion and sediment control requirements Nos. 1 through 14 in subsection C of this section. Compliance with the erosion and sediment control requirements shall be demonstrated through implementation of an approved large parcel engineering plan that includes an erosion and sediment control plan.

B. All new development and redevelopment that includes land disturbing activities of less than one acre shall comply with the small parcel minimum requirements, as set forth in PMC 24.08.140 through 24.08.180. Compliance with the small parcel requirements shall be demonstrated through implementation of a small parcel erosion and sediment control site drainage plan.

C. The following erosion and sediment control requirements shall be met:

1. Erosion and Sediment Control Requirement No. 1 — Stabilization and Sediment Trapping. All exposed and unworked soils shall be stabilized by suitable application of BMPs. From October 1st to April 30th, no soils shall remain unstabilized for more than two days. From May 1st to September 30th, no soils shall remain unstabilized for more than seven days. Prior to leaving the site, stormwater runoff shall pass through a sediment pond or sediment trap, or other appropriate BMPs.

2. Erosion and Sediment Control Requirement No. 2 — Delineate Clearing and Easement Limits. In the field, mark clearing limits and/or any easements, setbacks, sensitive/critical areas and their buffers, trees and drainage courses.
3. Erosion and Sediment Control Requirement No. 3 — Protection of Adjacent Properties. Properties adjacent to the project site shall be protected from sediment deposition.
4. Erosion and Sediment Control Requirement No. 4 — 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 land disturbing activities take place. Earthen structures such as dams, dikes, and diversions shall be seeded and mulched according to the timing indicated in erosion and sediment control requirement No. 1.
5. Erosion and Sediment Control Requirement No. 5 — Cut and Fill Slopes. Cut and fill slopes shall be designed and constructed in a manner that will minimize erosion. In addition, slopes shall be stabilized in accordance with erosion and sediment control requirement No. 1.
6. Erosion and Sediment Control Requirement No. 6 — 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 project site.
7. Erosion and Sediment Control Requirement No. 7 — 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 velocity of flow from a two-year, 24-hour frequency storm for the developed condition. Stabilization adequate to prevent erosion of outlets, adjacent streambanks, slopes and downstream reaches shall be provided at the outlets of all conveyance systems.
8. Erosion and Sediment Control Requirement No. 8 — 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.
9. Erosion and Sediment Control Requirement No. 9 — Underground Utility Construction. The construction of underground utility lines shall be subject to the following criteria:
 - a. Where feasible, no more than 500 feet of trench shall be opened at one time;
 - b. Where consistent with safety and space considerations, excavated material shall be placed on the uphill side of trenches; and
 - c. Trench dewatering devices shall discharge into a sediment trap or sediment pond.
10. Erosion and Sediment Control Requirement No. 10 — 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. If sediment is transported onto a road surface, the roads shall be cleaned thoroughly 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.
11. Erosion and Sediment Control Requirement No. 11 — 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 shall be permanently stabilized.~~

~~12. Erosion and Sediment Control Requirement No. 12 — Dewatering Construction Sites. Dewatering devices shall discharge into a sediment trap or sediment pond.~~

~~13. Erosion and Sediment Control Requirement No. 13 — Control of Pollutants Other Than Sediment on Construction Sites. All pollutants other than sediment that occur on-site during construction shall be handled and disposed of in a manner that does not cause contamination of stormwater.~~

~~14. Erosion and Sediment Control Requirement No. 14 — 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 an approved manual.~~

~~15. Erosion and Sediment Control Requirement No. 15 — Financial Liability.~~

~~Performance bonding, or other appropriate financial instruments, shall be required for all projects to ensure compliance with the approved erosion and sediment control plan. (Ord. 1482 § 1, 2000).~~

All developers applying for any of the following permits and/or approvals shall submit for approval a Stormwater Site Plan with their application and/or request:

- A. Grading permit;**
- B. Substantial development permit required under Chapter 90.58 RCW (Shoreline Management Act);**
- C. Subdivision approval;**
- D. Short plat approval (industrial and commercial);**
- E. Conditional use permit;**
- F. Building permit where the permit relates to 5,000 or more square feet of development coverage within the property, or where development is in a critical area;**
- G. Planned unit residential development; or**
- H. Any new development, redevelopment, and construction site activities that result in land disturbance of equal or greater than one acre, including projects less than one acre that are part of a larger common plan of development.**

The Stormwater Site Plans shall be prepared in accordance with the adopted manuals.

~~24.08.210 Minimum requirement No. 2 — Preservation of natural drainage systems~~ Construction Stormwater Pollution Prevention Plan (SWPPP).

~~Natural drainage patterns shall be maintained, and discharges from the site shall occur at the natural location, to the maximum extent practicable. (Ord. 1482 § 1, 2000).~~

All new development and redevelopment projects are responsible for preventing erosion and discharge of sediment and other pollutants into receiving waters. A Construction Stormwater Pollution Prevention Plan (SWPPP) shall be part of the Stormwater Site Plan for all projects. The SWPPP shall be implemented beginning with initial soil disturbance and until final stabilization.

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The SWPPP shall include a narrative and drawings. All BMPs shall be clearly referenced in the narrative and marked on the drawings. Sediment and Erosion control BMPs shall be consistent with the BMPs contained in the adopted manuals. The SWPPP narrative shall include documentation to explain and justify the pollution prevention decisions made for the project. Clearing and grading activities for developments shall be permitted only if conducted pursuant to an approved site development plan.

24.08.220 Minimum requirement No. 3 – Source control of pollution.

Source control BMPs shall be applied to all projects to the maximum extent practicable. Source control BMPs shall be selected, designed and maintained according to an approved manual. ~~An adopted and implemented basin plan (minimum requirement No. 9) may be used to develop source control requirements that are tailored to a specific basin, however, in all circumstances, source control BMPs shall be required for all sites. (Ord. 1482 § 1, 2000).~~

24.08.230 Minimum requirement No. 4 – ~~Runoff treatment BMPs.~~ Preservation of Natural Drainage Systems and Outfalls

~~A. All projects shall provide treatment of stormwater. Treatment BMPs shall be sized to capture and treat the water quality design storm, defined as the six month, 24-hour return period storm. The first priority for treatment shall be to infiltrate as much as possible of the water quality design storm, only if site conditions are appropriate and groundwater quality will not be impaired. Direct discharge of untreated stormwater to ground water is prohibited. All treatment BMPs shall be selected, designed and maintained according to an approved manual.~~

~~B. Stormwater treatment BMPs shall not be built within a natural vegetated buffer, except for necessary conveyance systems as approved by the local government.~~

~~C. An adopted and implemented basin plan (minimum requirement No. 9) may be used to develop runoff treatment requirements that are tailored to a specific basin. (Ord. 1482 § 1, 2000).~~

Natural drainage patterns shall be maintained, and discharges from the project site shall occur at the natural location, to the maximum extent practicable. The manner by which runoff is discharged from the project site shall not cause a significant adverse impact to downstream receiving waters and down gradient properties. All outfalls require energy dissipation.

24.08.240 Minimum requirement No. 5 – ~~Streambank erosion flow control~~ On-site Stormwater Management.

~~The requirement below applies only to situations where stormwater runoff is discharged directly or indirectly to a stream or if the capacity of the downstream stormwater system is insufficient, and must be met in addition to meeting the requirements in minimum requirement No. 4, runoff treatment BMPs:~~

~~A. Stormwater discharges to streams shall control streambank erosion flow by limiting the peak rate of runoff from individual development sites to 50 percent of the existing condition two-year, 24-hour design storm while maintaining the existing condition peak runoff rate for the 10-year, 24-hour and 100-year, 24-hour design storms. As the first priority, streambank erosion control BMPs shall utilize infiltration to the fullest extent practicable, only if site conditions are appropriate and groundwater quality is protected. Streambank erosion flow control BMPs shall be selected, designed and maintained according to an approved manual.~~

~~B. Stormwater treatment BMPs shall not be built within a natural vegetated buffer, except for necessary conveyance systems as approved by the local government.~~

~~C. An adopted and implemented basin plan (minimum requirement No. 9) may be used to develop streambank erosion flow control requirements that are tailored to a specific basin. (Ord. 1482 § 1, 2000).~~

On-site Stormwater Management BMPs to infiltrate, disperse, and retain stormwater runoff onsite shall be used to the maximum extent feasible without causing flooding or erosion impacts. Roof Downspout Control BMPs and Dispersion and Soil Quality BMPs shall be utilized to reduce the hydrologic disruption of developed sites.

24.08.250 Minimum requirement No. 6 —WetlandsRunoff Treatment:

~~The requirements below apply only to situations where stormwater discharges directly or indirectly through a conveyance system into a wetland, and must be met in addition to meeting the requirements in minimum standard No. 4, runoff treatment BMPs:~~

~~A. Stormwater discharges to wetlands must be controlled and treated to the extent necessary to meet the State Water Quality Standards, Chapter 173-201 WAC, or Ground Water Quality Standards, Chapter 173-200 WAC, as appropriate.~~

~~B. Discharges to wetlands shall maintain the hydroperiod and flows of existing site conditions to the extent necessary to protect the characteristic uses 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 on sites that are not wetlands and they must be managed for stormwater treatment. If these systems are not managed and maintained in accordance with an approved manual for a period exceeding three years, these systems may no longer be considered constructed wetlands. Discharges from constructed wetlands to waters of the state (including discharges to natural wetlands) are regulated under Chapter 90.48RCW, Chapter 173-201 WAC, and Chapter 173-200 WAC.~~

~~E. Stormwater treatment BMPs shall not be built within a natural vegetated buffer, except for necessary conveyance systems as approved by the local government. An adopted and implemented basin plan (minimum requirement No. 9) may be used to develop requirements for wetlands that are tailored to a specific basin. (Ord. 1482 § 1, 2000).~~

The following require construction of stormwater treatment facilities:

- **Projects in which the total of effective, pollution-generating impervious surface (PGIS) is 5,000 square feet or more in a threshold discharge area of the project, or**
- **Projects in which the total of pollution-generating pervious surfaces (PGPS) is three-quarters (3/4) of an acre or more in a threshold discharge area, and from which there is a surface discharge in a natural or man-made conveyance system from the site.**

1. Treatment to achieve Oil Control applies to projects that have "high-use sites." High-use sites are those that typically generate high concentrations of oil due to high traffic turnover or the frequent transfer of oil. High-use sites include:

- a. An area of a commercial or industrial site subject to an expected averagedaily traffic (ADT) count equal to or greater than 100 vehicles per 1,000square feet of gross building area;
 - b. An area of a commercial or industrial site subject to petroleum storage andtransfer in excess of 1,500 gallons per year, not including routinely deliveredheating oil;
 - c. An area of a commercial or industrial site subject to parking, storage ormaintenance of 25 or more vehicles that are over 10 tons gross weight(trucks, buses, trains, heavy equipment, etc.);
 - d. A road intersection with a measured ADT count of 25,000 vehicles or moreon the main roadway and 15,000 vehicles or more on any intersectingroadway, excluding projects proposing primarily pedestrian or bicycle useimprovements.
2. Phosphorous control shall be requiredfor new/redevelopment projects discharging to:
- a. Waterbodies reported under section 305(b) of the Clean Water Act, and designated as not supporting beneficial uses due to phosphorous;
 - b. Water bodies listed in Washington State's Nonpoint Source Assessment required under section 319(a) of the Clean Water Act due to nutrients.
3. Enhanced treatment for reduction in dissolved metals is required for the followingproject sites that discharge to fish-bearing streams, lakes, or to waters orconveyance systems tributary to fish-bearing streams or lakes:
- a. Industrial project sites,
 - b. Commercial project sites, and
 - c. Multi-family project sites, and
 - d. Fully controlled and partially controlled limited access highways with Annual Average Daily Traffic (AADT) counts of 15,000 vehicles or more, and
 - e. All other roads with an AADT count of 7,500 or greater.

However, such sites listed above that discharge directly (or, indirectly through amunicipal storm sewer system) to Basic Treatment Receiving Waters, andareas of the above-listed project sites that are identified as subject to BasicTreatment requirements, are also not subject to Enhanced Treatmentrequirements. For developments with a mix of land use types, the EnhancedTreatment requirement shall apply when the runoff fromthe areas subject to theEnhanced Treatment requirement comprise 50% or more of the total runoff within a threshold discharge area.

4. Basic Treatment generally applies to:
- a. Project sites that discharge to the ground, UNLESS:
 - The soil suitability criteria for infiltration treatment are met; or
 - The project uses infiltration strictly for flow control – not treatment -and the discharge is within ¼-mile of a phosphorus sensitive lake (use a Phosphorus

Treatment facility), or within ¼ mile of a fish-bearing stream, or a lake (use an Enhanced Treatment facility).

- b. Residential projects not otherwise needing phosphorus control as designated by USEPA, the Department of Ecology, or the City; and**
 - c. Project sites discharging directly to river segments, and lakes listed in Appendix I-C of the *Stormwater Management Manual for Western Washington* (2005); and**
 - d. Project sites that drain to streams that are not fish-bearing, or to waters not tributary to fish-bearing streams; and**
 - e. Landscaped areas of industrial, commercial, and multi-family project sites, and parking lots of industrial and commercial project sites that do not involve pollution-generating sources (e.g., industrial activities, customer parking, storage of erodible or leachable material, wastes or chemicals) other than parking of employees' private vehicles. For developments with a mix of land use types, the Basic Treatment requirement shall apply when the runoff from the areas subject to the Basic Treatment requirement comprise 50% or more of the total runoff within a threshold discharge area.**
- 5. Water Quality Facilities shall be sized to treat the volume of runoff predicted from a 24-hour storm with a 6-month return frequency (a.k.a., 6-month, 24-hour storm). Wet pool facilities shall be sized based upon the criteria in the approved manual.**
- 6. Water Quality Design Flow Rate:**
- a. Preceding Detention Facilities or when Detention Facilities are not required:**
 - The flow rate at or below which 91% of the runoff volume, as estimated by an approved continuous runoff model, will be treated. Design criteria for treatment facilities are assigned to achieve the applicable performance goal at the water quality design flow rate (e.g., 80% TSS removal).**
 - b. Downstream of Detention Facilities:**
 - The water quality design flow rate must be the full 2-year release rate from the detention facility.**
 - Alternative methods may be used if they identify volumes and flow rates that are at least equivalent.**
 - That portion of any development project in which the above PGIS or PGPS thresholds are not exceeded in a threshold discharge area shall apply On-site Stormwater Management BMPs in accordance with Minimum Requirement #5.**
- 7. Stormwater treatment facilities shall be:**
- a. Selected in accordance with the process identified in approved manual, and**
 - b. Designed in accordance with the design criteria in the approved manual, and**
 - c. Maintained in accordance with the maintenance schedule in the approved manual.**

The discharge of untreated stormwater from pollution-generating impervious surfaces to ground water shall not be permitted, except for the discharge achieved by infiltration or dispersion of runoff from residential sites through use of On-site Stormwater Management BMPs.

24.08.260 Minimum requirement No. 7 — ~~Water quality sensitive areas~~ Flow Control.

~~A. Where local governments determine that the minimum requirements do not provide adequate protection of water quality sensitive areas, either on-site or within the basin, more stringent controls shall be required to protect water quality.~~

~~B. Stormwater treatment BMPs shall not be built within a natural vegetated buffer, except for necessary conveyance systems as approved by the local government.~~

~~C. An adopted and implemented basin plan (minimum requirement No. 9) may be used to develop requirements for water quality sensitive areas that are tailored to a specific basin. (Ord. 1482 § 1, 2000).~~

Except as provided below, all projects shall provide flow control to reduce the impacts of stormwater runoff from impervious surfaces and land cover conversions. The requirement below applies to projects that discharge stormwater directly, or indirectly through a conveyance system, into a fresh water.

Flow control is not required for projects that discharge directly to, or indirectly through an MS4 to a water listed in Appendix I-E of the *Stormwater Management Manual for Western Washington* (2005) subject to the following restrictions:

- a. Direct discharge to the exempt receiving water does not result in the diversion of drainage from any perennial stream classified as Types 1, 2, 3, or 4 in the State of Washington Interim Water Typing System, or Types "S", "F", or "Np" in the Permanent Water Typing System, or from any category I, II, or III wetland; and**
- b. Flow splitting devices or drainage BMP's are applied to route natural runoff volumes from the project site to any downstream Type 5 stream or category IV wetland:**
 - Design of flow splitting devices or drainage BMP's will be based on continuous hydrologic modeling analysis. The design will assure that flows delivered to Type 5 stream reaches will approximate, but in no case exceed, durations ranging from 50% of the 2-year to the 50-year peak flow.**
 - Flow splitting devices or drainage BMP's that deliver flow to category IV wetlands will also be designed using continuous hydrologic modeling to preserve pre-project wetland hydrologic conditions unless specifically waived or exempted by regulatory agencies with permitting jurisdiction; and**
- c. The project site must be drained by a conveyance system that is comprised entirely of manmade conveyance elements (e.g., pipes, ditches, outfall protection, etc.) and extends to the ordinary high water line of the exempt receiving water; and**
- d. The conveyance system between the project site and the exempt receiving water shall have sufficient hydraulic capacity to convey discharges from future build-out conditions (under current zoning) of the site, and the existing condition from non-project areas from which runoff is or will be collected; and**
- e. Any erodible elements of the manmade conveyance system must be adequately stabilized to prevent erosion under the conditions noted above.**

If the discharge is to a stream that leads to a wetland, or to a wetland that has an outflow to a stream, both this minimum requirement and Minimum Requirement #8 apply.

The following require construction of flow control facilities and/or land use management BMPs that will achieve the standard flow control requirement per the approved manual:

- a. Projects in which the total of effective impervious surfaces is 10,000 square feet or more in a threshold discharge area, or
- b. Projects that convert $\frac{3}{4}$ acres or more of native vegetation to lawn or landscape, or convert 2.5 acres or more of native vegetation to pasture in a threshold discharge area, and from which there is a surface discharge in a natural or man-made conveyance system from the site, or
- a. Projects that through a combination of effective impervious surfaces and converted pervious surfaces cause a 0.1 cubic feet per second increase in the 100-year flow frequency from a threshold discharge area as estimated using an approved model.

That portion of any development project in which the above thresholds are not exceeded in a threshold discharge area shall apply Onsite Stormwater Management BMPs in accordance with Minimum Requirement #5.

Stormwater discharges shall match developed discharge durations to pre-developed durations for the range of pre-developed discharge rates from 50% of the 2-year peak flow up to the full 50-year peak flow. The pre-developed condition to be matched shall be a forested land cover unless:

- a. Reasonable, historic information is available that indicates the site was prairie prior to settlement; or
- b. The drainage area of the immediate stream and all subsequent downstream basins have had at least 40% total impervious area since 1985. In this case, the pre-developed condition to be matched shall be the existing land cover condition. Where basin-specific studies determine a stream channel to be unstable, even though the above criterion is met, the pre-developed condition assumption shall be the "historic" land cover condition, or a land cover condition commensurate with achieving a target flow regime identified by an approved basin study.

This standard requirement is waived for sites that will reliably infiltrate all the runoff from impervious surfaces and converted pervious surfaces.

Flow Control BMPs shall be selected, designed, and maintained in accordance with the approved manual.

24.08.270 Minimum requirement No. 8 – ~~Off-site analysis and mitigation~~ Wetlands Protection.

~~All development projects shall conduct an analysis of off-site water quality and hydraulic capacity impacts resulting from the project and shall mitigate these impacts.~~

~~The analysis shall extend a minimum of one-fourth of a mile downstream from the project. The existing or potential impacts to be evaluated and mitigated shall include, at a minimum, but not be limited to:~~

- ~~A. Excessive sedimentation.~~

~~B. Streambank erosion.~~

~~C. Discharges to ground water contributing or recharge zones.~~

~~D. Violations of water quality standards.~~

~~E. Spills and discharges of priority pollutants.~~

~~F. Hydraulic capacity of the downstream conveyance system. (Ord. 1482 § 1, 2000).~~

The following requirements must be met in addition to meeting Minimum Requirement elsewhere in this Chapter:

- 1. Discharges to wetlands shall maintain the hydrologic conditions, hydrophytic vegetation, and substrate characteristics necessary to support existing and designated uses. The hydrologic analysis shall use the existing land cover condition to determine the existing hydrologic conditions unless directed otherwise.**
- 2. Stormwater treatment and flow control facilities shall not be built within a natural vegetated buffer, except for:**
 - necessary conveyance systems as approved; or**
 - as allowed in wetlands approved for hydrologic modification and/or treatment in accordance with the approved manual.**

24.08.280 Minimum requirement No. 9 – Basin planning Operation and maintenance.

~~Adopted and implemented watershed-based basin plans may be used to modify any or all of the minimum requirements; provided, that the level of protection for surface or ground water achieved by the basin plan will equal or exceed that which would be achieved by the minimum requirements 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 the local government.~~

~~Basin plans shall be developed according to an approved manual. (Ord. 1482 § 1, 2000).~~

The party (or parties) responsible for maintenance and operation of the stormwater facility shall be identified in the operation and maintenance manual, a copy of the manual shall be retained onsite or within reasonable access to the site, and shall be transferred with the property to the new owner. A log of maintenance activity that indicates what actions were taken shall be kept and be available for inspection by the local government.

24.08.290 Minimum requirement No. 10 — Operation and maintenance.

~~An operation and maintenance schedule manual shall be provided for all proposed stormwater facilities and BMPs, and the party (or parties) responsible for maintenance and operation shall be identified. (Ord. 1482 § 1, 2000).~~

24.08.300 Minimum requirement No. 11 — Financial liability.

Performance bonding or other appropriate financial instruments shall be required for all projects to ensure compliance with these standards. Bonds shall be set at 125 percent of the estimated cost of all stormwater-related improvements and the cost of erosion/sedimentation control. (Ord. 1482 § 1, 2000).

24.08.310 Exceptions.

Exceptions to minimum requirements Nos. 1 through 11 may be granted prior to permit approval and construction. An exception may be granted following a public hearing, provided that a written finding of fact is prepared, that addresses the following:

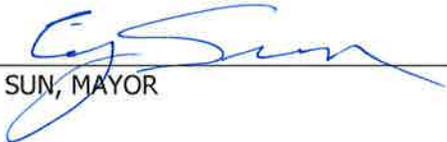
- A. The exception provides equivalent environmental protection and is in the overriding public interest, and that the objectives of safety, function, environmental protection and facility maintenance, based upon sound engineering, are fully met;
- B. That there are special physical circumstances or conditions affecting 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, and every effort to find creative ways to meet the intent of the minimum standards has been made;
- C. That the granting of the exception will not be detrimental to the public health and welfare, nor injurious to other properties in the vicinity and/or downstream, and to the quality of waters of the state; and
- D. The exception is the least possible exception that could be granted to comply with the intent of the minimum requirements. (Ord. 1482 § 1, 2000).

Section 5. Severability. If any section, sentence, clause or phrase of this ordinance should be held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of any other section, sentence, clause or phrase of this ordinance.

Section 6. Effective Date. This Ordinance shall be published in the official newspaper of the City, and shall take effect and be in full force five days after the date of publication.

PASSED BY THE CITY COUNCIL OF THE CITY OF PACIFIC, THE 9TH DAY OF JANUARY, 2012.

APPROVED:


CY SUN, MAYOR

ATTEST/AUTHENTICATED:


CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

Filed With The City Clerk: 12.30.11
Passed By The City Council: 1.09.12
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Ordinance No. 1816