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## DEPARTMENT OF ENVIRONMENTAL QUALITY

**340-041-0002**
**Definitions**

Definitions in this rule apply to all basins unless context requires otherwise.

(1) "401 Water Quality Certification" means a determination made by DEQ that a dredge and fill activity, private hydropower facility, or other federally licensed or permitted activity that may result in a discharge to waters of the state has adequate terms and conditions to prevent an exceedance of water quality criteria. The federal permit in question may not be issued without this state determination in accordance with the Federal Clean Water Act, section 401 (33 USC 1341).

(2) "Ambient Stream Temperature" means the stream temperature measured at a specific time and place. The selected location for measuring stream temperature must be representative of the stream in the vicinity of the point being measured.

(3) "Anthropogenic," when used to describe "sources" or "warming," means that which results from human activity.

(4) "Applicable Criteria" means the biologically based temperature criteria in OAR 340-041-0028(4), the superseding cold water protection criteria in 340-041-0028(11) or the superseding natural condition criteria in 340-041-0028(8). The applicable criteria may also be site-specific criteria approved by U.S. EPA. A subbasin may have a combination of applicable temperature criteria derived from some or all of these numeric and narrative criteria.

(5) "Appropriate Reference Site or Region" means a site on the same water body or within the same basin or ecoregion that has similar habitat conditions and represents the water quality and biological community attainable within the areas of concern.

(6) "Aquatic Species" means plants or animals that live at least part of their life cycle in waters of the state.

(7) "Basin" means a third-field hydrologic unit as identified by the U.S. Geological Survey.

(8) "BOD" means 5-day, 20°C Biochemical Oxygen Demand.



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(9) "Cold-Water Aquatic Life" means aquatic organisms that are physiologically restricted to cold water including, but not limited to, native salmon, steelhead, mountain whitefish, char including bull trout, and trout.

(10) "Cold Water Refugia" means those portions of a water body where or times during the diel temperature cycle when the water temperature is at least 2 degrees Celsius colder than the daily maximum temperature of the adjacent well-mixed flow of the water body.

(11) "Commission" or "EQC" means the Oregon Environmental Quality Commission.

(12) "Cool Water Aquatic Life" means aquatic organisms that are physiologically restricted to cool waters including, but not limited to, native sturgeon, Pacific lamprey, suckers, chub, sculpins and certain species of cyprinids (minnows.)

(13) "Core Cold Water Habitat Use" means waters expected to maintain temperatures within the range generally considered optimal for salmon and steelhead rearing, or that are suitable for bull trout migration, foraging and sub-adult rearing that occurs during the summer. These uses are designated on the following subbasin maps set out at OAR 340-041-0101 to 340-041-0340: Figures 130A, 151A, 160A, 170A, 180A, 201A, 220A, 230A, 271A, 286A, 300A, 310A, 320A, and 340A.

(14) "Critical Habitat" means those areas that support rare, threatened, or endangered species or serve as sensitive spawning and rearing areas for aquatic life as designated by the U.S. Fish and Wildlife Service or National Oceanic and Atmospheric Administration-Fisheries according to the Endangered Species Act (16 U.S. Code § 1531).

(15) "Daily Mean" for dissolved oxygen means the numeric average of an adequate number of data to describe the variation in dissolved oxygen concentration throughout a day, including daily maximums and minimums. For calculating the mean, concentrations in excess of 100 percent of saturation are valued at the saturation concentration.

(16) "Department" or "DEQ" means the Oregon State Department of Environmental Quality.

(17) "Designated Beneficial Use" means the purpose or benefit to be derived from a water body as designated by the Water Resources Department or the Water Resources Commission.

(18) "DO" means dissolved oxygen.

(19) "Ecological Integrity" means the summation of chemical, physical, and biological integrity capable of supporting and maintaining a balanced, integrated, adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of the natural habitat of the region.

(20) "Epilimnion" means the seasonally stratified layer of a lake or reservoir above the metalimnion; the surface layer.



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(21) "Erosion Control Plan" means a plan containing a list of best management practices to be applied during construction to control and limit soil erosion.

(22) “Estuarine Waters” means all mixed fresh and oceanic waters in estuaries or bays from the point of oceanic water intrusion inland to a line connecting the outermost points of the headlands or protective jetties.

(23) "High Quality Waters" means those waters that meet or exceed levels necessary to support the propagation of fish, shellfish and wildlife; recreation in and on the water; and other designated beneficial uses.

(24) "Hypolimnion" means the seasonally stratified layer of a lake or reservoir below the metalimnion; the bottom layer.

(25) "Industrial Waste" means any liquid, gaseous, radioactive, or solid waste substance or a combination thereof resulting from any process of industry, manufacturing, trade, or business or from the development or recovery of any natural resources.

(26) "In Lieu Fee" means a fee collected by a jurisdiction in lieu of requiring construction of onsite stormwater quality control facilities.

(27) "Intergravel Dissolved Oxygen" (IGDO) means the concentration of oxygen measured in the water within the stream bed gravels. Measurements should be taken within a limited time period before emergence of fry.

(28) "Jurisdiction" means any city or county agency in the Tualatin River and Oswego Lake subbasin that regulates land development activities within its boundaries by approving plats or site plans or issuing permits for land development.

(29) "Land Development" means any human-induced change to improved or unimproved real estate including, but not limited to, construction, installation or expansion of a building or other structure; land division; drilling; or site alteration such as land surface mining, dredging, grading, construction of earthen berms, paving, improvements for use as parking or storage, excavation or clearing.

(30) "Load Allocation” or “LA" means the portion of a receiving water's loading capacity that is attributed either to one of its existing or future nonpoint sources of pollution or to natural background sources. Load allocations are best estimates of the loading that may range from reasonably accurate estimates to gross allotments, depending on the availability of data and appropriate techniques for predicting loading. Whenever possible, natural and nonpoint source loads should be distinguished.

(31) "Loading Capacity” or “LC" means the greatest amount of loading that a water body can receive without violating water quality standards.



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(32) "Low Flow Period" means the flows in a stream resulting primarily from groundwater discharge or base flows augmented from lakes and storage projects during the driest period of the year. The dry weather period varies across the state according to climate and topography. Wherever the low flow period is indicated in Water Quality Management Plans, this period has been approximated by the inclusive months. Where applicable in a waste discharge permit, the low flow period may be further defined.

(33) "Managed Lakes" refers to lakes in which hydrology is managed by controlling the rate or timing of inflow or outflow.

(34) “Marine Waters” means all oceanic, offshore waters outside of estuaries or bays and within the territorial limits of the State of Oregon.

(35) "mg/l" or "mg/L" means milligrams per liter.

(36) "Metalimnion" means the seasonal, thermally stratified layer of a lake or reservoir that is characterized by a rapid change in temperature with depth and that effectively isolates the waters of the epilimnion from those of the hypolimnion during the period of stratification; the middle layer.

(37) "Migration Corridors" mean those waters that are predominantly used for salmon and steelhead migration during the summer and have little or no anadromous salmonid rearing in the months of July and August. Migration corridors are designated in Tables 101B and 121B and Figures 151A, 170A, 300A and 340A under OAR 340-041-0101 to 340-041-0340.

(38) "Minimum" for dissolved oxygen means the minimum recorded concentration including seasonal and diurnal minimums.

(39) "Monthly (30-day) Mean Minimum" for dissolved oxygen means the minimum of the 30 consecutive-day floating averages of the calculated daily mean dissolved oxygen concentration.

(40) "Natural Conditions" means conditions or circumstances affecting the physical, chemical, or biological integrity of a water of the state that are not influenced by past or present anthropogenic activities. Disturbances from wildfire, floods, earthquakes, volcanic or geothermal activity, wind, insect infestation and diseased vegetation are considered natural conditions.

(41) "Natural Thermal Potential" means the determination of the thermal profile of a water body using best available methods of analysis and the best available information on the site-potential riparian vegetation, stream geomorphology, stream flows and other measures to reflect natural conditions.

(42) "Nonpoint Sources" means any source of water pollution other than a point source. Generally, a nonpoint source is a diffuse or unconfined source of pollution where wastes can



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either enter into waters of the state or be conveyed by the movement of water into waters of the state.

(43) "Ocean Waters" means all oceanic, offshore waters outside of estuaries or bays and within the territorial limits of Oregon.

(44) "Outstanding Resource Waters" means waters designated by the EQC where existing high quality waters constitute an outstanding state or national resource based on their extraordinary water quality or ecological values or where special water quality protection is needed to maintain critical habitat areas.

(45) "Pollution" means such contamination or other alteration of the physical, chemical, or biological properties of any waters of the state, including change in temperature, taste, color, turbidity, silt, or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive, or other substance into any water of the state that either by itself or in connection with any other substance present can reasonably be expected to create a public nuisance or render such waters harmful, detrimental, or injurious to public health, safety, or welfare; to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses; or to livestock, wildlife, fish, other aquatic life or the habitat thereof.

(46) "Point Source" means a discernible, confined, and discrete conveyance including, but not limited to, a pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or leachate collection system from which pollutants are or may be discharged. Point source does not include agricultural storm water discharges and return flows from irrigated agriculture.

(47) "Public Water" means the same as "waters of the state".

(48) "Public Works Project" means any land development conducted or financed by a local, state, or federal governmental body.

(49) "Reserve Capacity" means that portion of a receiving stream's loading capacity that has not been allocated to point sources or to nonpoint sources and natural background as waste load allocations or load allocations, respectively. The reserve capacity includes that loading capacity that has been set aside for a safety margin and is otherwise unallocated.

(50) "Resident Biological Community" means aquatic life expected to exist in a particular habitat when water quality standards for a specific ecoregion, basin or water body are met. This must be established by accepted biomonitoring techniques.

(51) "Salmon" means chinook, chum, coho, sockeye and pink salmon.

(52) "Salmon and Steelhead Spawning Use" means waters that are or could be used for salmon and steelhead spawning, egg incubation, and fry emergence. These uses are designated on the following subbasin maps set out at OAR 340-041-0101 to 340-041-0340:



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Tables 101B, and 121B, and Figures 130B, 151B, 160B, 170B, 220B, 230B, 271B, 286B, 300B, 310B, 320B, and 340B.

(53) "Salmon and Trout Rearing and Migration Use" means thermally suitable rearing habitat for salmon, steelhead, rainbow trout, and cutthroat trout as designated on subbasin maps set out at OAR 340-041-0101 to 340-041-0340: Figures 130A, 151A, 160A, 170A, 220A, 230A, 271A, 286A, 300A, 310A, 320A, and 340A.

(54) "Salmonid or Salmonids" means native salmon, trout, mountain whitefish and char including bull trout. For purposes of Oregon water quality standards, salmonid does not include brook or brown trout because they are introduced species.

(55) "Secondary Treatment" means the following depending on the context:

(a) For sewage wastes, secondary treatment means the minimum level of treatment mandated by U.S. Environmental Protection Agency regulations pursuant to Public Law 92-500.

(b) For industrial and other waste sources, secondary treatment means control equivalent to best practicable treatment.

(56) "Seven-Day Average Maximum Temperature" means a calculation of the average of the daily maximum temperatures from seven consecutive days made on a rolling basis.

(57) "Sewage" means the water-carried human or animal waste from residences, buildings, industrial establishments, or other places together with such groundwater infiltration and surface water as may be present. The admixture with sewage of industrial wastes or wastes, as defined in this rule, may also be considered "sewage" within the meaning of this division.

(58) "Short-Term Disturbance" means a temporary disturbance of six months or less when water quality standards may be violated briefly but not of sufficient duration to cause acute or chronic effects on beneficial uses.

(59) "Spatial Median" means the value that falls in the middle of a data set of multiple intergravel dissolved oxygen (IGDO) measurements taken within a spawning area. Half the samples should be greater than and half the samples should be less than the spatial median.

(60) "SS" means suspended solids.

(61) "Stormwater Quality Control Facility" means any structure or drainage way designed, constructed and maintained to collect and filter, retain, or detain surface water runoff during and after a storm event for the purpose of water quality improvement. It may also include, but is not be limited to, existing features such as wetlands, water quality swales and ponds maintained as stormwater quality control facilities.

(62) "Subbasin" means a fourth-field hydrologic unit as identified by the U.S. Geological Survey.



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(63) "Summer" means June 1 through September 30 of each calendar year.

(64) "Threatened or Endangered Species" means aquatic species listed as either threatened or endangered under the federal Endangered Species Act (16 U.S. Code § 1531 et seq. and Title 50 of the Code of Federal Regulations).

(65) "Total Maximum Daily Load (TMDL)" means the sum of the individual waste load allocations (WLAs) for point sources and load allocations (LAs) for nonpoint sources and background. If receiving water has only one point source discharger, the TMDL is the sum of that point source WLA plus the LAs for any nonpoint sources of pollution and natural background sources, tributaries, or adjacent segments. TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure. If Best Management Practices (BMPs) or other nonpoint source pollution controls make more stringent load allocations practicable, then wasteload allocations can be made less stringent. Thus, the TMDL process provides for nonpoint source control tradeoffs.

(66) "Toxic Substance" means those pollutants or combinations of pollutants, including disease-causing agents, that after introduction to waters of the state and upon exposure, ingestion, inhalation or assimilation either directly from the environment or indirectly by ingestion through food chains will cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in reproduction), or physical deformations in any organism or its offspring.

(67) "Wasteload Allocation" or "WLA" means the portion of a receiving water's loading capacity allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality-based effluent limitation.

(68) "Warm-Water Aquatic Life" means the aquatic communities that are adapted to warm-water conditions and do not contain either cold- or cool-water species.

(69) "Wastes" means sewage, industrial wastes, and all other liquid, gaseous, solid, radioactive, or other substances that may cause or tend to cause pollution of any water of the state.

(70) "Water Quality Limited" means one of the following:

(a) A receiving stream that does not meet narrative or numeric water quality criteria during the entire year or defined season even after the implementation of standard technology;

(b) A receiving stream that achieves and is expected to continue to achieve narrative or numeric water quality criteria but uses higher than standard technology to protect beneficial uses;

(c) A receiving stream for which there is insufficient information to determine whether water quality criteria are being met with higher-than-standard treatment technology or a receiving



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stream that would not be expected to meet water quality criteria during the entire year or defined season without higher than standard technology.

(71) “Water Quality Standards Variance,” or “variance” means a time-limited alternate designated use and parameter-specific criteria that applies to a specified permitted discharger or group of specified permitted dischargers.

(71) "Water Quality Swale" means a natural depression or wide, shallow ditch used to temporarily store, route or filter runoff for the purpose of improving water quality.

(72) "Waters of the state" means lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Pacific Ocean within the territorial limits of the State of Oregon, and all other bodies of surface or underground waters, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface or underground waters) that are located wholly or partially within or bordering the state or within its jurisdiction.

(73) "Weekly (seven-day) Mean Minimum" for dissolved oxygen means the minimum of the seven consecutive-day floating average of the calculated daily mean dissolved oxygen concentration.

(74) "Weekly (seven-day) Minimum Mean" for dissolved oxygen means the minimum of the seven consecutive-day floating average of the daily minimum concentration. For application of the criteria, this value is the reference for diurnal minimums.

(75) "Without Detrimental Changes in the Resident Biological Community" means no loss of ecological integrity when compared to natural conditions at an appropriate reference site or region.

Statutory/Other Authority: ORS 468.020, 468B.010, 468B.015, 468B.035 & 468B.048
Statutes/Other Implemented: ORS 468B.035 & 468B.048
History:
DEQ 1-2015, f. & cert. ef. 1-7-15
DEQ 3-2012, f. & cert. ef. 5-21-12
DEQ 2-2007, f. & cert. ef. 3-15-07
DEQ 3-2004, f. & cert. ef. 5-28-04
DEQ 17-2003, f. & cert. ef. 12-9-03

**340-041-0059**
**Variances**

To view the multiple discharger variance for Willamette basin dischargers for mercury see OAR 340-041-0345(6).



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(1) Applicability. Subject to the requirements and limitations set out in sections (2) through (9) below, a point source may request a water quality standards variance where it is demonstrated that the source cannot feasibly meet effluent limits sufficient to meet water quality standards.

(a) The variance applies only to the specified point source permit(s) and pollutant(s); the underlying water quality standard(s) otherwise remains in effect.

(b) The department or commission may not grant a variance if:

(A) The effluent limit sufficient to meet the underlying water quality standard can be attained by implementing technology-based effluent limits required under sections 301(b) and 306 of the federal Clean Water Act; or

(B) The variance would likely jeopardize the continued existence of any threatened or endangered species listed under section 4 of the Endangered Species Act or result in the destruction or adverse modification of such species' critical habitat; or

(C) The conditions allowed by the variance would result in an unreasonable risk to human health.

(2) Types of variances. The following types of variances to water quality standards may be established:

(a) The director may issue an individual variance to a specified permitted discharger. The temporary standard(s) only applies at the point(s) of compliance for the individual facility.

(b) The commission may adopt a rule establishing a multiple discharger variance, which applies to multiple permitted discharge facilities as defined within the scope of the rule.

(c) The commission may adopt a rule establishing a water body variance, which is a time-limited alternate designated use and parameter-specific criteria change that applies to all qualified dischargers within the defined water body or water body segment.

(3) Conditions to Grant a Variance. Before the commission or department may grant a variance, it must determine that:

(a) The requirements that apply throughout the term of the water quality variance will not result in any lowering of the currently attained ambient water quality, unless the variance is needed for restoration activities; and

(b) Attaining the water quality standard during the term of the variance is not feasible for one or more of the following reasons:

(A) Naturally occurring pollutant concentrations prevent the attainment of the use;



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(B) Natural, ephemeral, intermittent, or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges to enable uses to be met without violating state water conservation requirements;

(C) Human-caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place;

(D) Dams, diversions, or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the waterbody to its original condition or to operate such modification in a way which would result in the attainment of the use;

(E) Physical conditions related to the natural features of the waterbody, such as the lack of a proper substrate, cover, flow, depth, pools, riffles, and unrelated to water quality preclude attainment of aquatic life protection uses; or

(F) Controls more stringent than those required by sections 301(b) and 306 of the federal Clean Water Act would result in substantial and widespread economic and social impact.

(4) Variance Duration.

(a) The duration of a variance must only be as long as necessary to meet the highest attainable condition as described in section (6) of this rule. If the term of the variance exceeds five years, DEQ will reevaluate the highest attainable condition at least every 5 years.

(b) When the duration of the variance is less than the term of a NPDES permit, the permittee must be in compliance with the specified effluent limitation sufficient to meet the underlying water quality standard upon the expiration of the variance.

(c) A variance is effective only after EPA approval. The duration of the variance will be specified in an NPDES permit, order or rule of the department or commission.

(5) Variance Submittal Requirements. To request a variance, a permittee must submit the following information to the department:

(a) A demonstration that attaining the water quality standard for a specific pollutant is not feasible for the requested duration of the variance based on one or more of the conditions found in section (3)(b) of this rule;

(b) A description of treatment or alternative options considered to meet limits based on the applicable underlying water quality standard, and a description of why these options are not technically, economically, or otherwise feasible;



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(c) Sufficient water quality data and analyses to characterize ambient and discharge water pollutant concentrations;

(d) Any cost-effective and reasonable best management practices for nonpoint sources under the control of the discharger that addresses the pollutant the variance is based upon;

(e) A proposed pollutant minimization plan that includes any actions to be taken by the permittee that would result in reasonable progress toward meeting the underlying water quality standard. Such actions may include proposed pollutant offsets or trading or other proposed pollutant reduction activities, and associated milestones for implementing these measures. Pollutant minimization plans will be tailored to address the specific circumstances of each facility with the objective of reducing pollutant levels to the extent feasible; and

(f) If the discharger is a publicly owned treatment works, a demonstration of the jurisdiction's legal authority (such as a sewer use ordinance) to regulate the pollutant for which the variance is sought. The jurisdiction's legal authority must be sufficient to control potential sources of that pollutant that discharge into the jurisdiction's sewer collection system.

(6) Highest Attainable Condition. The highest attainable condition will be a quantifiable expression of one of the following:

(a) For discharger(s)-specific WQS variances:

(A) The highest attainable interim criterion; or

(B) The interim effluent concentration that reflects the greatest pollutant reduction achievable; or

(C) If no additional feasible pollutant control technology can be identified, the interim effluent condition that reflects the greatest pollutant reduction achievable with the pollutant control technologies installed at the time the State adopts the WQS variance, and the adoption and implementation of a pollutant reduction plan.

(b) For WQS variances applicable to a water body or waterbody segment:

(A) The highest attainable interim use and interim criterion; or

(B) If no additional feasible pollutant control technology can be identified, the effluent condition that reflects the greatest pollutant reduction achievable with the pollutant control technologies installed at the time the State adopts the WQS variance, and the adoption and implementation of a pollutant reduction plan.

(7) Variance Permit Conditions. Variance conditions in the discharger's permit will be based on the highest attainable condition and not the underlying water quality standard, so long as the variance remains effective. The department must establish and incorporate into the discharger's NPDES permit all conditions necessary to implement and enforce an approved variance and associated pollutant reduction plan. The permit must include, at a minimum, the following requirements:



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(a) An interim permit limit or requirement representing the highest feasibly attainable effluent condition. Any permit limit must be no less stringent than that achieved under the previous permit. For a new discharger, the permit limit will be calculated based on best achievable technology;

(b) A requirement to implement any pollutant reduction actions approved as part of a pollutant reduction plan submitted in accordance with section (4)(e) above and to make reasonable progress toward attaining the underlying water quality standard(s);

(c) Any studies, effluent monitoring, or other monitoring necessary to ensure compliance with the conditions of the variance; and

(d) An annual progress report to the department describing the results of any required studies or monitoring during the reporting year and identifying the reduction activities completed, and any impediments to reaching any specific milestones stated in the variance.

(8) Public Notification Requirements.

(a) If the department proposes to grant a variance, it must provide public notice of the proposal and an opportunity for public comment. The public notice may be included in the public notification of a draft NPDES permit or other draft regulatory decision that would rely on the variance;

(b) The department will publish a list of all variances approved pursuant to this rule. Newly approved variances will be added to this list within 30 days of their effective date. The list will identify: the discharger; the underlying water quality standard addressed by the variance; the waters of the state to which the variance applies; the effective date and duration of the variance; the highest attainable condition specified in the variance; and how to obtain additional information about the variance.

(9) Variance Renewals.

(a) A variance may be renewed if:

(A) The permittee makes a renewed demonstration pursuant to section (2) of this rule that attaining the water quality standard continues to be infeasible,

(B) The permittee submits any new or updated information pertaining to any of the requirements of section 4,

(C) The department determines that all conditions and requirements of the previous variance and actions contained in the pollutant reduction plan pursuant to section (5) have been met, unless reasons outside the control of the discharger prevented meeting any condition or requirement, and

(D) All other requirements of this rule have been met.



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(b) An individual variance renewal must be approved by the department director and by EPA.

(c) The renewal of a multiple discharger variance or waterbody variance must be approved by the commission and by EPA.

**Statutory/Other Authority:** ORS 468.020, 468B.010, 468B.020, 468B.035 & 468B.110
**Statutes/Other Implemented:** ORS 468B.048
**History:**
DEQ 10-2011, f. & cert. ef. 7-13-11

**340-041-0345**
**Basin-Specific Criteria (Willamette): Water Quality Standards and Policies for this Basin**

(1) pH (hydrogen ion concentration). pH values may not fall outside the following ranges:

(a) All basin waters (except main stem Columbia River and Cascade lakes): 6.5 to 8.5;

(b) Cascade lakes above 3,000 feet altitude: 6.0 to 8.5.

(2) Total Dissolved Solids. Guide concentrations listed may not be exceeded unless otherwise specifically authorized by DEQ upon such conditions as it may deem necessary to carry out the general intent of this plan and to protect the beneficial uses set forth in OAR 340-041-0340: Willamette River and Tributaries — 100.0 mg/l.

(3) Minimum Design Criteria for Treatment and Control of Sewage Wastes:

(a) Willamette River and tributaries except Tualatin River Subbasin:

(A) During periods of low stream flows (approximately May 1 to October 31): Treatment resulting in monthly average effluent concentrations not to exceed 10 mg/l of BOD and 10 mg/l of SS or equivalent control;

(B) During the period of high stream flows (approximately November 1 to April 30): A minimum of secondary treatment or equivalent control and unless otherwise specifically authorized by the Department, operation of all waste treatment and control facilities at maximum practical efficiency and effectiveness so as to minimize waste discharges to public waters.

(b) Main stem Tualatin River from mouth to Gaston (river mile 0 to 65):

(A) During periods of low stream flows (approximately May 1 to October 31): Treatment resulting in monthly average effluent concentrations not to exceed 10 mg/l of BOD and 10 mg/l of SS or equivalent control;



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(B) During the period of high stream flows (approximately November 1 to April 30): Treatment resulting in monthly average effluent concentrations not to exceed 20 mg/l of BOD and 20 mg/l of SS or equivalent control.

(c) Main stem Tualatin River above Gaston (river mile 65) and all tributaries to the Tualatin River: Treatment resulting in monthly average effluent concentrations not to exceed 5 mg/l of BOD and 5 mg/l of SS or equivalent control;

(d) Tualatin River Subbasin: The dissolved oxygen level in the discharged effluents may not be less than 6 mg/l;

(4) Nonpoint source pollution control in the Tualatin River subbasin and lands draining to Oswego Lake:

(a) Subsection (5)(b) of this rule applies to any new land development within the Tualatin River and Oswego Lake subbasins, except those developments with application dates prior to January 1, 1990. The application date is the date on which a complete application for development approval is received by the local jurisdiction in accordance with the regulations of the local jurisdiction;

(b) For land development, no preliminary plat, site plan, permit or public works project may be approved by any jurisdiction in these subbasins unless the conditions of the plat permit or plan approval include an erosion control plan containing methods and/or interim facilities to be constructed or used concurrently with land development and to be operated during construction to control the discharge of sediment in the stormwater runoff. The erosion control plan must include the following elements:

(A) Protection techniques to control soil erosion and sediment transport to less than one ton per acre per year, as calculated using the Natural Resources Conservation Service's Universal Soil Loss Equation or other equivalent methods (see Figures 1 to 6 in Appendix 1 for examples). The erosion control plan must include temporary sedimentation basins or other sediment control devices when, because of steep slopes or other site specific considerations, other on-site sediment control methods will not likely keep the sediment transport to less than one ton per acre per year. The local jurisdictions may establish additional requirements for meeting an equivalent degree of control. Any sediment basin constructed must be sized using 1.5 feet minimum sediment storage depth plus 2.0 feet storage depth above for a settlement zone. The storage capacity of the basin must be sized to store all of the sediment that is likely to be transported and collected during construction while the erosion potential exists. When the erosion potential has been removed, the sediment basin, or other sediment control facilities, can be removed and the site restored as per the final site plan. All sediment basins must be constructed with an emergency overflow to prevent erosion or failure of the containment dike; or

(B) A soil erosion control matrix derived from and consistent with the universal soil equation approved by the jurisdiction or the Department.



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(c) The Director may modify Appendix 1 as necessary without approval from the Environmental Quality Commission. The Director may modify Appendix 1 to simplify it and to make it easier for people to apply;

(d) Subsection (5)(e) of this rule applies to any new land development within the Tualatin River and Oswego Lake subbasins, except:

(A) Those developments with application dates prior to June 1, 1990. The application date is the date on which a complete application for development approval is received by the local jurisdiction in accordance with the regulations of the local jurisdiction;

(B) One and two family dwellings on existing lots of record;

(C) Sewer lines, water lines, utilities or other land development that will not directly increase nonpoint source pollution once construction has been completed and the site is either restored to or not altered from its approximate original condition;

(D) If the Environmental Quality Commission determines that a jurisdiction does not need to require stormwater quality control facilities for new development;

(E) When a jurisdiction adopts ordinances that provide for a stormwater quality program equivalent to subsection (e) of this section. Ordinances adopted to implement equivalent programs must:

(i) Encourage on-site retention of stormwater, require phosphorus removal equivalent to the removal efficiency required by subsection (e) of this section, provide for adequate operation and maintenance of stormwater quality control facilities, and require financial assurance, or equivalent security that assures construction of the stormwater quality control facilities required by the ordinance;

(ii) If the ordinances provide for exemptions other than those allowed for by paragraphs (B) and (C) of this subsection, the ordinances must provide for collection of in-lieu fees or other equivalent mechanisms that assure financing for, and construction of, associated, off-site stormwater quality control facilities. No exemption may be allowed if the jurisdiction is not meeting an approved schedule for identifying location of the off-site stormwater quality control facility to serve the development requesting an exemption.

(e) For new development, no plat, site plan, building permit or public works project may be approved by any jurisdiction in these subbasins unless the conditions of the plat, permit or plan approval require permanent stormwater quality control facilities to control phosphorus loadings associated with stormwater runoff from the development site. Jurisdictions must encourage and provide preference to techniques and methods that prevent and minimize pollutants from entering the storm and surface water systems. Permanent stormwater quality control facilities for phosphorus must meet the following requirements:



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(A) The stormwater quality control facilities must be designed to achieve a phosphorus removal efficiency as calculated from the following equation:

$Rp = 100 - 24.5/Rv$

Where:

Rp = Required phosphorus removal efficiency

Rv = Average site runoff coefficient

The average site runoff coefficient can be calculated from the following equation:

$Rv = (0.7 \times A1) + (0.3 \times A2) + (0.7 \times A3) + (0.05 \times A4) + (A5 \times 0.0)$

Where:

A1 = fraction of total area that is paved streets with curbs and that drain to storm sewers or open ditches.

A2 = fraction of total area that is paved streets that drain to water quality swales located on site.

A3 = fraction of total area that is building roof and paved parking that drains to storm sewers.

A4 = fraction of total area that is grass, trees and marsh areas.

A5 = fraction of total area for which runoff will be collected and retained on site with no direct discharge to surface waters.

(B) A jurisdiction may modify the equation for Rv to allow the application of additional runoff coefficients associated with land surfaces not identified in this subsection. The Department must be notified in writing whenever an additional runoff coefficient is used. The use of additional runoff coefficients must be based on scientific data. The jurisdiction must discontinue use of an additional runoff coefficient if the Department objects to its use in writing within ten days of receiving notification;

(C) The stormwater quality control facilities must be designed to meet the removal efficiency specified in paragraph (A) of this subsection for a mean summertime storm event totaling 0.36 inches of precipitation with an average return period of 96 hours;

(D) The removal efficiency specified in paragraph (A) of this subsection specify only design requirements and are not intended to be used as a basis for performance evaluation or compliance determination of the stormwater quality control facility installed or constructed pursuant to this subsection;



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(E) Stormwater quality control facilities required by this subsection may be approved by a jurisdiction only if the following are met:

(i) For developments larger than one acre, the plat or site plan must include plans and a certification prepared by an Oregon registered, professional engineer that the proposed stormwater control facilities have been designed in accordance with criteria expected to achieve removal efficiencies for total phosphorus required by paragraph (A) of this subsection;

(ii) The plat or site plan must be consistent with the area and associated runoff coefficients used to determine the removal efficiency required in paragraph (A) of this subsection;

(iii) A financial assurance, or equivalent security acceptable to the jurisdiction, must be provided by the developer with the jurisdiction that assures that the stormwater control facilities are constructed according to the plans established in the plat or site plan approval. Where practicable, the jurisdiction must combine the financial assurance required by this rule with other financial assurance requirements imposed by the jurisdiction;

(iv) Each jurisdiction that constructs or authorizes construction of permanent stormwater quality control facilities must file with the Department, an operation and maintenance plan for the stormwater quality control facilities within its jurisdiction. The operation and maintenance plan must allow for public or private ownership, operation, and maintenance of individual permanent stormwater quality control facilities. The jurisdiction or private operator must operate and maintain the permanent stormwater control facilities in accordance with the operation and maintenance plan.

(f) Except as required by paragraph (D) of this subsection, the jurisdiction may grant an exception to subsection (e) of this section if the jurisdiction chooses to adopt and, on a case-by-case basis, impose a one time in-lieu fee. The fee will be an option where, because of the size of the development, topography, or other factors, the jurisdiction determines that the construction of on-site permanent stormwater treatment systems is impracticable or undesirable:

(A) The in-lieu fee will be based upon a reasonable estimate of the current, prorated cost for the jurisdiction to provide stormwater quality control facilities for the land development being assessed the fee. Estimated costs include costs associated with off-site land and rights-of-way acquisition, design, construction and construction inspection;

(B) The jurisdiction must deposit any in-lieu fees collected pursuant to this paragraph in an account dedicated only to reimbursing the jurisdiction for expenses related to off-site land and rights-of-way acquisition, design, construction and construction inspection of stormwater quality control facilities;

(C) The ordinance establishing the in-lieu fee must include provisions that reduce the fee in proportion to the ratio of the site's average runoff coefficient (Rv), as established according to the equation in paragraph (6)(e)(A) of this rule;



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(D) No new development may be granted an exemption if the jurisdiction is not meeting an approved time schedule for identifying the location for the off-site stormwater quality control facilities that would serve that development.

(g) The Department may approve other mechanisms that allow jurisdictions to grant exemptions to new development. The Department may only approve those mechanisms that assure financing for off-site stormwater quality control facilities and that encourage or require on-site retention where feasible;

(h) Subsection (b) of this section apply until a jurisdiction adopts ordinances that provide for a program equivalent to subsection (b) of this section, or the Environmental Quality Commission determines such a program is not necessary when it approves the jurisdiction's program plan required by OAR 340-041-0470(2)(g).

(5) In order to improve water quality within the Yamhill River subbasin to meet the existing water quality standard for pH, the following special rules for total maximum daily loads, waste load allocations, load allocations and program plans are established:

(a) After completion of wastewater control facilities and program plans approved by the Commission under this rule and no later than June 30, 1994, no activities may be allowed and no wastewater may be discharged to the Yamhill River or its tributaries without the authorization of the Commission that cause the monthly median concentration of total phosphorus to exceed 70 ug/1 as measured during the low flow period between approximately May 1 and October 31*** of each year;

(b) Within 90 days of adoption of these rules, the Cities of McMinnville and Lafayette must submit a program plan and time schedule to the Department describing how and when they will modify their sewerage facility to comply with this rule;

(c) Final program plans will be reviewed and approved by the Commission. The Commission may define alternative compliance dates as program plans are approved. All proposed final program plans must be subject to public hearing prior to consideration for approval by the Commission;

(d) The Department will within 60 days of adoption of these rules distribute initial waste load allocations and load allocations to the point and nonpoint sources in the basin. These allocations are considered interim and may be redistributed based upon the conclusions of the approved program plans.

***Precise dates for complying with this rule may be conditioned on physical conditions (i.e., flow, temperature) of the receiving water and may be specified in individual permits or memorandums of understanding issued by the Department. The Department may consider system design flows, river travel times, and other relevant information when establishing the specific conditions to be inserted in the permits or memorandums of understanding.



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(6) **Multiple Discharger Variance for Mercury.** The following procedures describe the application process and requirements for permitted wastewater discharge facilities to qualify for a water quality standards variance for the human health criterion for mercury. These procedures only apply to facilities that hold individual permits to discharge wastewater to waters of the Willamette River Basin.

(a) **Findings.** The Department finds the following:

(A) The human health criterion for mercury cannot be attained in the waters of the Willamette Basin in the next 20 years because human-caused sources of mercury from global mercury emissions and erosion of native soils are deposited or transported to Willamette Basin waters. These mercury sources are outside the control of Oregon dischargers or the state and cannot be remedied during the next 20 years;

(B) There is no currently feasible mercury treatment technology that would result in achieving the wastewater effluent;

(C) It would cause more environmental harm to install and operate advanced treatment technology to remove additional mercury than to reduce mercury through implementation of a mercury minimization plan. This finding does not affect any requirement that would result in installation of advanced technology to address pollutants other than mercury.

(b) **Term of the variance.** The term of this variance is 20 years from the date of EPA approval.

(c) **Application requirements.** To qualify for the variance, a facility must provide the following information

(A) A letter stating that they are applying for the mercury variance under this rule.

(B) All mercury effluent data from the previous five years. At least two years of quarterly effluent data is required to receive coverage under the variance.

(C) A mercury minimization plan, as described in 340-041-0345(6)(d)(B).

(d) **Highest attainable condition.** Permit requirements will reflect the highest attainable condition for this variance. The highest attainable condition consists of the following elements:

(A) The level currently achievable, which is the numeric expression of the effluent condition achievable with the pollutant control technologies installed by the facility, when those facilities are well maintained and operated.

(B) A mercury minimization plan, tailored to each individual facility and covering the term of the variance, with the following minimum elements:



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(1) A monitoring plan to include influent, effluent and biosolids monitoring.

(2) Mercury reduction activities to be implemented throughout the term of the variance. These activities should incorporate the following:

(A) For municipal facilities, mercury reduction activities should address potential mercury sources from dental offices, medical facilities, schools, and other laboratories, as well as other known sources in the service area.

(B) For industrial facilities, mercury minimization activities should address mercury-containing materials used in the facility's manufacturing process, as well as testing laboratories and other known mercury sources.

(3) Annual reporting to include all mercury data collected and a summary of mercury minimization activities completed within the previous year.

(e) **Public notice.** DEQ will provide public notice and opportunity for comment for a request for authorization under this variance together with the opportunity for comment on the draft permit.

(f) **Re-evaluation of the Highest Attainable Condition**. DEQ will re-evaluate the highest attainable condition for this multiple discharger variance at least every five years from the date that EPA approves this variance, and DEQ will provide a written summary of this re-evaluation to EPA.

(A) The re-evaluation will include the following elements:

(1) A summary of the mercury reduction activities complete and an analysis of mercury reductions achieved by facilities covered under this variance using the data and information provided in their annual reports; and

(2) Determination of the feasibility of mercury control technology to attain the water quality standard.

(B) DEQ will provide the opportunity for public comment on the re-evaluation prior to submitting it to EPA.

(C) Upon permit renewal for each facility covered under the variance, DEQ will update conditions in the permit based on the re-evaluation of the Highest Attainable Condition including the following:

(1) DEQ will re-calculate each facility's level currently achievable, as described in 340-041-0345(6)(d)(A), utilizing the previous five years of data provided by each facility, at the time of their permit renewal.

(2) DEQ will review updates to the facility's mercury minimization plan.



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(3) An opportunity for public comment will be provided with the opportunity for comment on the draft permit.

**Statutory/Other Authority:** ORS 468.020, 468B.030, 468B.035 & 468B.048
**Statutes/Other Implemented:** ORS 468B.030, 468B.035 & 468B.048
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