

FINAL PROPOSAL

WATER QUALITY STANDARDS, DOCKET NO. 58-0102-1401

The proposed rule was published in the Idaho Administrative Bulletin, September 3, 2014, Vol. 14-9, pages 409 through 423. DEQ recommends that the Board take the following action:

IDAPA 58.01.02

Section 010	ADOPT AS REVISED
Section 060	ADOPT AS REVISED

IDAPA 58 - DEPARTMENT OF ENVIRONMENTAL QUALITY

58.01.02 – WATER QUALITY STANDARDS

DOCKET NO. 58-0102-1401

NOTICE OF RULEMAKING – ADOPTION OF PENDING RULE

EFFECTIVE DATE: This rule has been adopted by the Board of Environmental Quality (Board) and is now pending review by the 2015 Idaho State Legislature for final approval. The pending rule will become final and effective immediately upon the adjournment *sine die* of the First Regular Session of the Sixty-third Idaho Legislature unless prior to that date the rule is rejected in whole or in part by concurrent resolution in accordance with Idaho Code Sections 67-5224 and 67-5291.

AUTHORITY: In compliance with Section 67-5224, Idaho Code, notice is hereby given that the Board has adopted a pending rule. This action is authorized by Sections 39-105, 39-107, and 39-3601 *et seq.*, Idaho Code.

DESCRIPTIVE SUMMARY: A detailed summary of the reason for adopting the rule is set forth in the initial proposal published in the Idaho Administrative Bulletin, September 3, 2014, Vol. 14-9, pages 409 through 423. After consideration of public comments, the rule has been revised at Sections 010 and 060. The Rulemaking and Public Comment Summary can be obtained at www.deq.idaho.gov/58-0102-1401 or by contacting the undersigned.

IDAHO CODE SECTION 39-107D STATEMENT: The standards included in this rule are not broader in scope, nor more stringent, than federal regulations and do not regulate an activity not regulated by the federal government.

FISCAL IMPACT STATEMENT: The following is a specific description, if applicable, of any negative fiscal impact on the state general fund greater than ten thousand dollars (\$10,000) during the fiscal year when the pending rule will become effective: Not applicable.

ASSISTANCE ON TECHNICAL QUESTIONS: For assistance on technical questions concerning this rulemaking, contact Don Essig at don.essig@deq.idaho.gov, (208)373-0119.

Dated this 21st day of November, 2014.

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Revisions to Proposed Rule for Board Consideration, Docket No. 58-0102-1401

The revisions made to the proposed rule are highlighted. Only those portions of the proposed rule containing revisions are included.

010. DEFINITIONS.

For the purpose of the rules contained in IDAPA 58.01.02, "Water Quality Standards," the following definitions apply: (4-11-06)

~~11. **Bioaccumulative Pollutants.** A compound with a bioaccumulation factor of greater than one thousand (1,000) or a bioconcentration factor of greater than one thousand (1,000) three hundred (300). ()~~

~~545. **LC-50.** The toxicant concentration killing fifty percent (50%) of exposed organisms at a specific time of observation (e.g., ninety six (96) hours). (3-20-97)~~

~~734. **Outstanding Resource Water Mixing Zone.** An area or volume of an ORW where pollutants are allowed to mix with the ORW receiving water at a location distinct from the sampling point where compliance with ORW quality standards is measured. An ORW mixing zone will be downstream from the discharge of a tributary or a segment immediately upstream which contains man caused pollutants as a result of nonpoint source activities occurring on that tributary or segment. As a result of the discharge, the mixing zone may not meet all water quality standards applicable to the ORW, but shall still be protected for existing beneficial uses. The Department, after consideration of input from interested parties, will determine the size, configuration and location of mixing zones which are necessary to meet the requirements of this chapter. (7-1-93)~~

(BREAK IN CONTINUITY OF SECTION)

060. MIXING ZONE POLICY.

~~01. **Mixing Zones for Point Source Wastewater Discharges.** After a biological, chemical, and physical appraisal of the receiving water and the proposed discharge and after consultation with the person(s) responsible for the wastewater discharge, the Department will determine the applicability of a mixing zone and, if applicable, its size, configuration, and location. In defining a mixing zone, the Department will consider the following principles: (7-1-93)~~

~~a. The mixing zone may receive wastewater through a submerged pipe, conduit or diffuser. (7-1-93)~~

~~b. The mixing zone is to be located so it does not cause unreasonable interference with or danger to existing beneficial uses. (7-1-93)~~

~~c. When two (2) or more individual mixing zones are needed for a single activity, the sum of the areas and volumes of the several mixing zones is not to exceed the area and volume which would be allowed for a single zone; (7-1-93)~~

~~d. Multiple mixing zones can be established for a single discharge, each being specific for one (1) or more pollutants contained within the discharged wastewater; (7-1-93)~~

~~e. Mixing zones in flowing receiving waters are to be limited to the following: (7-1-93)~~

~~i. The cumulative width of adjacent mixing zones when measured across the receiving water is not to exceed fifty percent (50%) of the total width of the receiving water at that point; (7-1-93)~~

~~ii. The width of a mixing zone is not to exceed twenty five percent (25%) of the stream width or three hundred (300) meters plus the horizontal length of the diffuser as measured perpendicularly to the stream flow, whichever is less; (7-1-93)~~

~~iii. The mixing zone is to be no closer to the ten (10) year, seven (7) day low flow shoreline than fifteen percent (15%) of the stream width; (7-1-93)~~

~~iv. The mixing zone is not to include more than twenty five percent (25%) of the volume of the stream flow; (7-1-93)~~

~~f. Mixing zones in reservoirs and lakes are to be limited to the following: (7-1-93)~~

~~i. The total horizontal area allocated to mixing zones is not to exceed ten percent (10%) of the surface area of the lake; (7-1-93)~~

~~ii. Adjacent mixing zones are to be no closer than the greatest horizontal dimension of any of the individual zones; (7-1-93)~~

~~g. The water quality within a mixing zone may exceed chronic water quality criteria so long as chronic water quality criteria are met at the boundary of any approved mixing zone. Acute water quality criteria may be exceeded within a zone of initial dilution inside the mixing zone if approved by the Department. (3-23-98)~~

~~h. Concentrations of hazardous materials within the mixing zone must not exceed the ninety six (96) hour LC50 for biota significant to the receiving water's aquatic community. (7-1-93)~~

~~02. **Mixing Zones for Outstanding Resource Waters.** An ORW mixing zone will be downstream from the discharge of a tributary or segment immediately upstream which contains man caused pollutants as a result of nonpoint source activities occurring on that tributary or segment. As a result of the discharge, the mixing zone may not meet all water quality standards applicable to the ORW, but shall still be protected for existing beneficial uses. The Department, after consideration of input from interested parties, will determine the size, configuration and location of mixing zones which are necessary to meet the requirements of these rules. (8-24-94)~~

~~**01. **Mixing Zones for Point Source Discharges.** Whether a mixing zone is authorized, including and its size, configuration and location, is determined must be authorized by the Department on a case-by-case basis. This determination is made in accordance with the provisions of Section 060 at the each time a permit is issued, or renewed, or materially modified and is in effect as long as the permit remains in effect valid until permit renewal or modification. Such an authorization is required before a mixing zone can be used to determine the need for, or level of, effluent limits for a particular pollutant. Narrative criteria in Subsection 200.05 apply within the mixing zone. ()**~~

~~**a.** Mixing zones shall not be authorized for a given pollutant when the receiving water does not meet water quality criteria for that pollutant; provided, however, the Department may authorize a mixing zone when the permitted discharge is consistent with an approved TMDL allocation or other applicable plans or analyses (such as 4b implementation plans, watershed loading analyses, or facility-specific water quality pollutant management plans analyses) that demonstrate that there is available assimilative capacity and authorizing a mixing zone is consistent with achieving compliance with water quality standards in the receiving water. ()~~

~~**b.** Water quality within an authorized mixing zone is allowed to exceed chronic water quality criteria for those parameters approved by the Department. If approved by the Department, acute water quality criteria for one (1) or more parameters may be exceeded within the zone of initial dilution inside the mixing zone. Narrative criteria in Subsections 200.03 and 200.05 apply within the mixing zone. All water quality criteria must be met at the boundary of any mixing zone under its design conditions. ()~~

~~c. The size of mixing zone(s) and the concentration of pollutant(s) present shall be evaluated based on the permitted design flow. The Department shall not authorize a mixing zone that is determined to be larger than is necessary considering siting, technological, and managerial options available to the discharger. ()~~

~~d. Mixing zones, individually or in combination with other mixing zones, shall not cause unreasonable interference with, or danger to, beneficial uses. Unreasonable interference with, or danger to, beneficial uses includes, but is not limited to, the following: ()~~

~~i. Impairment to the integrity of the aquatic community, including interfering with successful spawning, egg incubation, rearing, or passage of aquatic life. Blocking or impeding passage to any life stage of fish or other aquatic life, preventing successful spawning, egg incubation or rearing, or causing injury to attached aquatic life. ()~~

~~ii. Heat in the discharge that causes thermal shock, lethality, or loss of cold water refugia. ()~~

~~iii. Bioaccumulation of pollutants (as defined in Section 010) resulting in tissue levels in aquatic organisms that exceed levels protective of human health or aquatic life higher than the applicable water column criteria would predict. ()~~

~~iv. Lethality to aquatic life passing through the mixing zone. ()~~

~~v. Concentrations of pollutants that exceed Maximum Contaminant Levels at drinking water intake structures. ()~~

~~vi. Conditions which impede or prohibit recreation in or on the water body. Mixing zones shall not be authorized for E. coli. ()~~

~~e. Multiple nested mixing zones may be established for a single point of discharge, each being specific for one (1) or more pollutants contained within the discharge. ()~~

~~f. Multiple mixing zones can may be established for a single activity with multiple points of discharge. When these individual mixing zones overlap or merge, their combined area and volume shall not exceed that which would be allowed if there was a single point of discharge. When these individual mixing zones do not overlap or merge, they may be authorized as individual mixing zones. ()~~

~~g. Adjacent mixing zones of independent activities shall not overlap. ()~~

~~h. Mixing zones shall meet the following restrictions; provided, however, that the Department may authorize mixing zones that vary from the restrictions under the circumstances set forth in Subsection 060.01.i. below: ()~~

~~i. For flowing waters: ()~~

~~(1) The width of a mixing zone is not to exceed twenty-five percent (25%) of the stream width; and ()~~

~~(2) The mixing zone shall not include more than twenty-five percent (25%) of the low flow design discharge conditions as set forth in Subsection 210.03.b. of these rules. ()~~

~~ii. For all new discharges to nonflowing waters authorized after July 1, 2015: ()~~

~~(1) The size of the mixing zone is not to exceed five percent (5%) of the total open surface area of the water body or one hundred (100) meters from the point of discharge, whichever is smaller; ()~~

~~(2) Shore-hugging plumes are not allowed; and ()~~

(3) Diffusers shall be used. ()

iii. For all existing discharges to nonflowing waters authorized prior to July 1, 2015, the total horizontal area allocated to the mixing zone is not to exceed ten percent (10%) of the surface area of the lake.

iv. Lakes and reservoirs with a mean detention time of fifteen (15) days or greater shall be considered nonflowing waters for this purpose. Detention time will be calculated as the mean annual storage volume divided by the mean annual flow rate out of the reservoir for the same time period. ()

i. The Department may authorize a mixing zone that varies from the limits in Subsection 060.01.h, if it is established that: ()

i. A smaller mixing zone is needed to avoid an unreasonable interference with, or danger to, beneficial uses as described in Subsection 060.01.d., and the mixing zone meets the other requirements set forth in Section 060; or ()

ii. A larger mixing zone is needed by the discharger and does not cause an unreasonable interference with, or danger to, beneficial uses as described in Subsection 060.01.d., and the mixing zone meets the other requirements set forth in Section 060. The discharger shall provide to the Department an analysis that demonstrates a larger mixing zone is needed given siting, technological, and managerial options. ()

j. The following elements shall be considered when designing an outfall: ()

i. Encourage rapid mixing to the extent possible. This may be done through careful location and design of the outfall; and ()

ii. Avoid shore-hugging plumes in those water bodies where the littoral zone is a major supply of food and cover for migrating fish and other aquatic life or where recreational activities are impacted by the plume. ()

02. Points of Compliance as Alternatives to Mixing Zones. Specification of mixing zones for some 404 dredge and fill activities, stormwater, and nonpoint source discharges may not be practicable due to the generally intermittent and diffuse nature of these discharges. Rather, the Department may allow limited dilution of the discharge by establishing points for monitoring compliance with ambient water quality criteria. These alternatives to a mixing zone are still subject to requirements outlined in Subsections 060.01.a, 060.01.d, 200.03, and 200.05. ()