

Yellow shaded text indicates revisions made based on discussion held on July 10, 2014.

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58.01.02 - WATER QUALITY STANDARDS

010. DEFINITIONS.

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

01. Activity. For purposes of antidegradation review, an activity that causes a discharge to a water subject to the jurisdiction of the Clean Water Act. (3-18-11)

02. Acute. A stimulus severe enough to induce a rapid response. In aquatic toxicity tests, acute refers to a single or short-term (i.e., ninety-six (96) hours or less) exposure to a concentration of a toxic substance or effluent which results in death to fifty percent (50%) of the test organisms. When referring to human health, an acute effect is not always measured in terms of lethality. (3-30-07)

03. Acute Criteria. Unless otherwise specified in these rules, the maximum instantaneous or one (1) hour average concentration of a toxic substance or effluent which ensures adequate protection of sensitive species of aquatic organisms from acute toxicity due to exposure to the toxic substance or effluent. Acute criteria are expected to adequately protect the designated aquatic life use if not exceeded more than once every three (3) years. This is also known as the Criterion Maximum Concentration (CMC). There are no specific acute criteria for human health; however, the human health criteria are based on chronic health effects and are expected to adequately protect against acute effects. (3-30-07)

04. Aquatic Species. Any plant or animal that lives at least part of its life in the water column or benthic portion of waters of the state. (8-24-94)

05. Assigned Criteria. Criteria associated with beneficial uses from Section 100 of these rules. (3-18-11)

06. Background. The biological, chemical or physical condition of waters measured at a point immediately upstream (up-gradient) of the influence of an individual point or nonpoint source discharge. If several discharges to the water exist or if an adequate upstream point of measurement is absent, the Department will determine where background conditions should be measured. (8-24-94)

07. Basin Advisory Group. No less than one (1) advisory group named by the Director, in consultation with the designated agencies, for each of the state’s six (6) major river basins which shall generally advise the Director on water quality objectives for each basin, work in a cooperative manner with the Director to achieve these objectives, and provide general coordination of the water quality programs of all public agencies pertinent to each basin. Each basin advisory group named by the Director shall reflect a balanced representation of the interests in the basin and shall, where appropriate, include representatives from each of the following: agriculture, mining, nonmunicipal point source discharge permittees, forest products, local government, livestock, Indian tribes (for areas within reservation boundaries), water-based recreation, and environmental interests. (3-20-97)

08. Beneficial Use. Any of the various uses which may be made of the water of Idaho, including, but not limited to, domestic water supplies, industrial water supplies, agricultural water supplies, navigation, recreation in and on the water, wildlife habitat, and aesthetics. The beneficial use is dependent upon actual use, the ability of the water to support a non-existing use either now or in the future, and its likelihood of being used in a given

manner. The use of water for the purpose of wastewater dilution or as a receiving water for a waste treatment facility effluent is not a beneficial use. (8-24-94)

09. Best Management Practice. A practice or combination of practices, techniques or measures developed, or identified, by the designated agency and identified in the state water quality management plan which are determined to be the cost-effective and practicable means of preventing or reducing the amount of pollution generated by nonpoint sources to a level compatible with water quality goals. (3-20-97)

10. Bioaccumulation. The process by which a compound is taken up by, and accumulated in the tissues of an aquatic organism from the environment, both from water and through food. (8-24-94)

XX. Bioaccumulative Pollutants. A compound with a bioaccumulation factor of greater than three hundred (300).

11. Biological Monitoring or Biomonitoring. The use of a biological entity as a detector and its response as a measure to determine environmental conditions. Toxicity tests and biological surveys, including habitat monitoring, are common biomonitoring methods. (8-24-94)

12. Board. The Idaho Board of Environmental Quality. (7-1-93)

13. Chronic. A stimulus that persists or continues for a long period of time relative to the life span of an organism. In aquatic toxicity tests, chronic refers to continuous exposure to a concentration of a toxic substance or effluent which results in mortality, injury, reduced growth, impaired reproduction, or other adverse effect to aquatic organisms. The test duration is long enough that sub-lethal effects can be reliably measured. When referring to human health, a chronic effect is usually measured in terms of estimated changes in rates (# of cases/ 1000 persons) of illness over a lifetime of exposure. (3-30-07)

14. Chronic Criteria. Unless otherwise specified in these rules, the four (4) day average concentration of a toxic substance or effluent which ensures adequate protection of sensitive species of aquatic organisms from chronic toxicity due to exposure to the toxic substance or effluent. Chronic criteria are expected to adequately protect the designated aquatic life use if not exceeded more than once every three (3) years. This is also known as the Criterion Continuous Concentration (CCC). Human health chronic criteria are based on lifetime exposure. (3-30-07)

15. Compliance Schedule or Schedule Of Compliance. A schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with an effluent limitation, other limitation, prohibition, or standard. (8-24-94)

16. Cost-Effective and Reasonable Best Management Practices (BMPs) for Nonpoint Sources. All approved BMPs specified in Subsections 350.03 and 055.07 of these rules. BMPs for activities not specified are, in accordance with Section 350, determined on a case-by-case basis. (3-18-11)

17. Daily Maximum (Minimum). The highest (lowest) value measured during one (1) calendar day or a twenty-four (24) hour period, as appropriate. For ambient monitoring of dissolved oxygen, pH, and temperature, multiple measurements should be obtained at intervals short enough that the difference between consecutive measurements around the daily maximum (minimum) is less than zero point two (0.2) ppm for dissolved oxygen, zero point one (0.1) SU for pH, or zero point five (0.5) degree C for temperature. (3-30-07)

18. Daily Mean. The average of at least two (2) appropriately spaced measurements, acceptable to the Department, calculated over a period of one (1) day: (3-20-97)

a. Confidence bounds around the point estimate of the mean may be required to determine the sample size necessary to calculate a daily mean; (8-24-94)

b. If any measurement is greater or less than five-tenths (0.5) times the average, additional measurements over the one-day period may be needed to obtain a more representative average; (3-20-97)

c. In calculating the daily mean for dissolved oxygen, values used in the calculation shall not exceed the dissolved oxygen saturation value. If a measured value exceeds the dissolved oxygen saturation value, then the dissolved oxygen saturation value will be used in calculating the daily mean. (8-24-94)

d. For ambient monitoring of temperature, the daily mean should be calculated from equally spaced measurements, at intervals such that the difference between any two (2) consecutive measurements does not exceed one point zero (1.0) degree C. (3-30-07)

19. Degradation or Lower Water Quality. “Degradation” or “lower water quality” means, for purposes of antidegradation review, a change in a pollutant that is adverse to designated or existing uses, as calculated for a new point source, and based upon monitoring or calculated information for an existing point source increasing its discharge. Such degradation shall be calculated or measured after appropriate mixing of the discharge and receiving water body. (3-29-12)

20. Deleterious Material. Any nontoxic substance which may cause the tainting of edible species of fish, taste and odors in drinking water supplies, or the reduction of the usability of water without causing physical injury to water users or aquatic and terrestrial organisms. (8-24-94)

21. Department. The Idaho Department of Environmental Quality. (7-1-93)

22. Design Flow. The critical flow used for steady-state wasteload allocation modeling. (8-24-94)

23. Designated Agency. The department of lands for timber harvest activities, oil and gas exploration and development, and mining activities; the soil conservation commission for grazing and agricultural activities; the transportation department for public road construction; the department of agriculture for aquaculture; and the Department’s division of environmental quality for all other activities. (3-20-97)

24. Designated Beneficial Use or Designated Use. Those beneficial uses assigned to identified waters in Idaho Department of Environmental Quality Rules, IDAPA 58.01.02, “Water Quality Standards and Wastewater Treatment Requirements,” Sections 110 through 160, whether or not the uses are being attained.(4-5-00)

25. Desirable Species. Species indigenous to the area or those introduced species identified as desirable by the Idaho Department of Fish and Game. (3-15-02)

26. Director. The Director of the Idaho Department of Environmental Quality or his authorized agent. (7-1-93)

27. Discharge. When used without qualification, any spilling, leaking, emitting, escaping, leaching, or disposing of a pollutant into the waters of the state. For purposes of antidegradation review, means “discharge” as used in Section 401 of the Clean Water Act. (3-18-11)

28. Dissolved Oxygen (DO). The measure of the amount of oxygen dissolved in the water, usually expressed in mg/l. (7-1-93)

29. Dissolved Product. Petroleum product constituents found in solution with water. (8-24-94)

30. Dynamic Model. A computer simulation model that uses real or derived time series data to predict a time series of observed or derived receiving water concentrations. Dynamic modeling methods include continuous simulation, Monte Carlo simulations, lognormal probability modeling, or other similar statistical or deterministic techniques. (8-24-94)

31. E. coli (Escherichia coli). A common fecal and intestinal organism of the coliform group of bacteria found in warm-blooded animals. (4-5-00)

32. Effluent. Any wastewater discharged from a treatment facility. (7-1-93)

- 33. Effluent Biomonitoring.** The measurement of the biological effects of effluents (e.g., toxicity, biostimulation, bioaccumulation, etc.). (8-24-94)
- 34. EPA.** The United States Environmental Protection Agency. (7-1-93)
- 35. Ephemeral Waters.** A stream, reach, or water body that flows naturally only in direct response to precipitation in the immediate watershed and whose channel is at all times above the water table. (4-11-06)
- 36. Existing Activity or Discharge.** An activity or discharge that has been previously authorized or did not previously require authorization. (3-18-11)
- 37. Existing Beneficial Use Or Existing Use.** Those beneficial uses actually attained in waters on or after November 28, 1975, whether or not they are designated for those waters in Idaho Department of Environmental Quality Rules, IDAPA 58.01.02, "Water Quality Standards." (4-11-06)
- 38. Facility.** As used in Section 850 only, any building, structure, installation, equipment, pipe or pipeline, well pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock or aircraft, area, place or property from which an unauthorized release of hazardous materials has occurred. (8-24-94)
- 39. Four Day Average.** The average of all measurements within a period of ninety-six (96) consecutive hours. While a minimum of one (1) measurement per each twenty-four (24) hours is preferred, for toxic chemicals in Section 210, any number of data points is acceptable. (3-30-07)
- 40. Free Product.** A petroleum product that is present as a nonaqueous phase liquid. Free product includes the presence of petroleum greater than one-tenth (0.1) inch as measured on the water surface for surface water or the water table for ground water. (7-1-93)
- 41. Full Protection, Full Support, or Full Maintenance of Designated Beneficial Uses of Water.** Compliance with those levels of water quality criteria listed in Sections 200, 210, 250, 251, 252, 253, and 275 (if applicable) or where no major biological group such as fish, macroinvertebrates, or algae has been modified by human activities significantly beyond the natural range of the reference streams or conditions approved by the Director in consultation with the appropriate basin advisory group. (3-15-02)
- 42. General Permit.** An NPDES permit issued by the U.S. Environmental Protection Agency authorizing a category of discharges under the federal Clean Water Act or a nationwide or regional permit issued by the U.S. Army Corps of Engineers under the federal Clean Water Act. (3-29-12)
- 43. Geometric Mean.** The geometric mean of "n" quantities is the "nth" root of the product of the quantities. (7-1-93)
- 44. Ground Water.** Any water of the state which occurs beneath the surface of the earth in a saturated geological formation of rock or soil. (3-30-07)
- 45. Harmonic Mean Flow.** The number of daily flow measurements divided by the sum of the reciprocals of the flows (i.e., the reciprocal of the mean of reciprocals). (8-24-94)
- 46. Hazardous Material.** A material or combination of materials which, when discharged in any quantity into state waters, presents a substantial present or potential hazard to human health, the public health, or the environment. Unless otherwise specified, published guides such as Quality Criteria for Water (1976) by EPA, Water Quality Criteria (Second Edition, 1963) by the state of California Water Quality Control Board, their subsequent revisions, and more recent research papers, regulations and guidelines will be used in identifying individual and specific materials and in evaluating the tolerances of the identified materials for the beneficial uses indicated. (7-1-93)
- 47. Highest Statutory and Regulatory Requirements for Point Sources.** All applicable effluent

limits required by the Clean Water Act and other permit conditions. It also includes any compliance schedules or consent orders requiring measures to achieve applicable effluent limits and other permit conditions required by the Clean Water Act. (3-18-11)

48. Hydrologic Unit Code (HUC). A unique eight (8) digit number identifying a subbasin. A subbasin is a United States Geological Survey cataloging unit comprised of water body units. (4-5-00)

49. Hydrologically-Based Design Flow. A statistically derived receiving water design flow based on the selection and identification of an extreme value (e.g., 1Q10, 7Q10). The underlying assumption is that the design flow will occur X number of times in Y years, and limits the number of years in which one (1) or more excursions below the design flow can occur. (8-24-94)

50. Hypolimnion. The bottom layer in a thermally-stratified body of water. It is fairly uniform in temperature and lays beneath a zone of water which exhibits a rapid temperature drop with depth such that mixing with overlying water is inhibited. (3-30-07)

51. Integrated Report. Refers to the consolidated listing and reporting of the state's water quality status pursuant to Sections 303(d), 305(b), and 314 of the Clean Water Act. (3-18-11)

52. Inter-Departmental Coordination. Consultation with those agencies responsible for enforcing or administering the practices listed as approved best management practices in Subsection 350.03. (7-1-93)

53. Intermittent Waters. A stream, reach, or water body which naturally has a period of zero (0) flow for at least one (1) week during most years. Where flow records are available, a stream with a 7Q2 hydrologically-based unregulated flow of less than one-tenth (0.1) cubic feet per second (cfs) is considered intermittent. Streams with natural perennial pools containing significant aquatic life uses are not intermittent. (4-11-06)

54. 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)

55. Load Allocation (LA). The portion of a receiving water's loading capacity that is attributed either to one (1) of its existing or future nonpoint sources of pollution or to natural background sources. (8-24-94)

56. Loading Capacity. The greatest amount of pollutant loading that a water can receive without violating water quality standards. (8-24-94)

57. Lowest Observed Effect Concentration (LOEC). The lowest concentration of a toxic substance or an effluent that results in observable adverse effects in the aquatic test population. (3-30-07)

58. Man-Made Waterways. Canals, flumes, ditches, wasteways, drains, laterals, and/or associated features, constructed for the purpose of water conveyance. This may include channels modified for such purposes prior to November 28, 1975. These waterways may have uniform and rectangular cross-sections, straight channels, follow rather than cross topographic contours, be lined to reduce water loss, and be operated or maintained to promote water conveyance. (3-30-07)

59. Maximum Weekly Maximum Temperature (MWMT). The weekly maximum temperature (WMT) is the mean of daily maximum temperatures measured over a consecutive seven (7) day period ending on the day of calculation. When used seasonally, e.g., spawning periods, the first applicable WMT occurs on the seventh day into the time period. The MWMT is the single highest WMT that occurs during a given year or other period of interest, e.g., a spawning period. (3-30-07)

60. Milligrams Per Liter (mg/l). Milligrams of solute per liter of solution, equivalent to parts per million, assuming unit density. (7-1-93)

61. Mixing Zone. A defined area or volume of the receiving water surrounding or adjacent to a wastewater discharge where the receiving water, as a result of the discharge, may not meet all applicable water

quality criteria or standards. It is considered a place where wastewater mixes with receiving water and not as a place where effluents are treated. (7-1-93)

62. National Pollutant Discharge Elimination System (NPDES). Point source permitting program established pursuant to Section 402 of the federal Clean Water Act. (8-24-94)

63. Natural Background Conditions. The physical, chemical, biological, or radiological conditions existing in a water body without human sources of pollution within the watershed. Natural disturbances including, but not limited to, wildfire, geologic disturbance, diseased vegetation, or flow extremes that affect the physical, chemical, and biological integrity of the water are part of natural background conditions. Natural background conditions should be described and evaluated taking into account this inherent variability with time and place. (3-30-07)

64. Nephelometric Turbidity Units (NTU). A measure of turbidity based on a comparison of the intensity of the light scattered by the sample under defined conditions with the intensity of the light scattered by a standard reference suspension under the same conditions. (8-24-94)

65. New Activity or Discharge. An activity or discharge that has not been previously authorized. Existing activities or discharges not currently permitted or licensed will be presumed to be new unless the Director determines to the contrary based on review of available evidence. An activity or discharge that has previously taken place without need for a license or permit is not a new activity or discharge when first licensed or permitted. (3-18-11)

66. Nonpoint Source Activities. Activities on a geographical area on which pollutants are deposited or dissolved or suspended in water applied to or incident on that area, the resultant mixture being discharged into the waters of the state. Nonpoint source activities on ORWs do not include issuance of water rights permits or licenses, allocation of water rights, operation of diversions, or impoundments. Nonpoint sources activities include, but are not limited to: (3-20-97)

- a.** Irrigated and nonirrigated lands used for: (7-1-93)
 - i.** Grazing; (7-1-93)
 - ii.** Crop production; (7-1-93)
 - iii.** Silviculture; (7-1-93)
- b.** Log storage or rafting; (7-1-93)
- c.** Construction sites; (7-1-93)
- d.** Recreation sites; (3-20-97)
- e.** Septic tank disposal fields. (8-24-94)
- f.** Mining; (3-20-97)
- g.** Runoff from storms or other weather related events; and (3-20-97)
- h.** Other activities not subject to regulation under the federal national pollutant discharge elimination system. (3-20-97)

67. Nuisance. Anything which is injurious to the public health or an obstruction to the free use, in the customary manner, of any waters of the state. (7-1-93)

68. Nutrients. The major substances necessary for the growth and reproduction of aquatic plant life, consisting of nitrogen, phosphorus, and carbon compounds. (7-1-93)

- 69. One Day Minimum.** The lowest daily instantaneous value measured. (3-20-97)
- 70. One Hour Average.** The mean of at least two (2) appropriately spaced measurements, as determined by the Department, calculated over a period of one (1) hour. When three (3) or more measurements have been taken, and if any measurement is greater or less than five-tenths (0.5) times the mean, additional measurements over the one-hour period may be needed to obtain a more representative mean. (3-20-97)
- 71. Operator.** For purposes of Sections 851 and 852, any person presently or who was at any time during a release in control of, or having responsibility for, the daily operation of the petroleum storage tank (PST) system. (4-2-03)
- 72. Outstanding Resource Water (ORW).** A high quality water, such as water of national and state parks and wildlife refuges and water of exceptional recreational or ecological significance, which has been designated by the legislature and subsequently listed in this chapter. ORW constitutes an outstanding national or state resource that requires protection from point and nonpoint source activities that may lower water quality.(3-20-97)
- 73. 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)
- 74. Owner.** For purposes of Sections 851 and 852, any person who owns or owned a petroleum storage tank (PST) system any time during a release and the current owner of the property where the PST system is or was located. (4-2-03)
- 75. Permit or License.** A permit or license for an activity that is subject to certification by the state under Section 401 of the Clean Water Act, including, for example, NPDES permits, dredge and fill permits, and FERC licenses. (3-18-11)
- 76. Person.** An individual, public or private corporation, partnership, association, firm, joint stock company, joint venture, trust, estate, state, municipality, commission, political subdivision of the state, state or federal agency, department or instrumentality, special district, interstate body or any legal entity, which is recognized by law as the subject of rights and duties. (3-20-97)
- 77. Petroleum Products.** Products derived from petroleum through various refining processes. (7-1-93)
- 78. Petroleum Storage Tank (PST) System.** Any one (1) or combination of storage tanks or other containers, including pipes connected thereto, dispensing equipment, and other connected ancillary equipment, and stationary or mobile equipment, that contains petroleum or a mixture of petroleum with de minimis quantities of other regulated substances. (7-1-93)
- 79. Point Source.** Any discernible, confined, and discrete conveyance, including, but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are, or may be, discharged. This term does not include return flows from irrigated agriculture, discharges from dams and hydroelectric generating facilities or any source or activity considered a nonpoint source by definition. (7-1-93)
- 80. Pollutant.** Dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical waste, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, silt, cellar dirt; and industrial, municipal and agricultural waste, gases entrained in water; or other materials

which, when discharged to water in excessive quantities, cause or contribute to water pollution. Provided however, biological materials shall not include live or occasional dead fish that may accidentally escape into the waters of the state from aquaculture facilities. (3-20-97)

81. Project Plans. Documents which describe actions to be taken under a proposed activity. These documents include environmental impact statements, environmental assessments, and other land use or resource management plans. (7-1-93)

82. Public Swimming Beaches. Areas indicated by features such as signs, swimming docks, diving boards, slides, or the like, boater exclusion zones, map legends, collection of a fee for beach use, or any other unambiguous invitation to public swimming. Privately owned swimming docks or the like which are not open to the general public are not included in this definition. (4-11-06)

83. Receiving Waters. Those waters which receive pollutants from point or nonpoint sources. (7-1-93)

84. Reference Stream or Condition. A water body which represents the minimum conditions necessary to fully support the applicable designated beneficial uses as further specified in these rules, or natural conditions with few impacts from human activities and which are representative of the highest level of support attainable in the basin. In highly mineralized areas or in the absence of such reference streams or water bodies, the Director, in consultation with the basin advisory group and the technical advisors to it, may define appropriate hypothetical reference conditions or may use monitoring data specific to the site in question to determine conditions in which the beneficial uses are fully supported. (3-20-97)

85. Release. Any unauthorized spilling, leaking, emitting, discharging, escaping, leaching, or disposing into soil, ground water, or surface water. (8-24-94)

86. Resident Species. Those species that commonly occur in a site including those that occur only seasonally or intermittently. This includes the species, genera, families, orders, classes, and phyla that: (8-24-94)

a. Are usually present at the site; (8-24-94)

b. Are present only seasonally due to migration; (8-24-94)

c. Are present intermittently because they periodically return or extend their ranges into the site; (8-24-94)

d. Were present at the site in the past but are not currently due to degraded conditions, and are expected to be present at the site when conditions improve; and (8-24-94)

e. Are present in nearby bodies of water but are not currently present at the site due to degraded conditions, and are expected to be present at the site when conditions improve. (8-24-94)

87. Responsible Persons in Charge. Any person who: (8-24-94)

a. By any acts or omissions, caused, contributed to or exacerbated an unauthorized release of hazardous materials; (8-24-94)

b. Owns or owned the facility from which the unauthorized release occurred and the current owner of the property where the facility is or was located; or (8-24-94)

c. Presently or who was at any time during an unauthorized release in control of, or had responsibility for, the daily operation of the facility from which an unauthorized release occurred. (8-24-94)

88. Sediment. Undissolved inorganic matter. (3-30-07)

89. Seven Day Mean. The average of the daily mean values calculated over a period of seven (7)

consecutive days. (3-20-97)

90. Sewage. The water-carried human or animal waste from residences, buildings, industrial establishments or other places, together with such ground water infiltration and surface water as may be present. (8-24-94)

91. Short-Term or Temporary Activity. An activity which is as short as possible but lasts for no more than one (1) year, is limited in scope and is expected to have only minimal impact on water quality as determined by the Director. Short-term or temporary activities include, but are not limited to, those activities described in Subsection 080.02. (3-30-07)

92. Silviculture. Those activities associated with the regeneration, growing and harvesting of trees and timber including, but not limited to, disposal of logging slash, preparing sites for new stands of trees to be either planted or allowed to regenerate through natural means, road construction and road maintenance, drainage of surface water which inhibits tree growth or logging operations, fertilization, application of herbicides or pesticides, all logging operations, and all forest management techniques employed to enhance the growth of stands of trees or timber. (3-20-97)

93. Sludge. The semi-liquid mass produced by partial dewatering of potable or spent process waters or wastewater. (7-1-93)

94. Specialized Best Management Practices. Those practices designed with consideration of geology, land type, soil type, erosion hazard, climate and cumulative effects in order to fully protect the beneficial uses of water, and to prevent or reduce the pollution generated by nonpoint sources. (3-3-87)

95. State. The state of Idaho. (7-1-93)

96. State Water Quality Management Plan. The state management plan developed and updated by the Department in accordance with Sections 205, 208, and 303 of the Clean Water Act. (3-20-97)

97. Suspended Sediment. The undissolved inorganic fraction of matter suspended in surface water. (3-30-07)

98. Suspended Solids. The undissolved organic and inorganic matter suspended in surface water. (3-30-07)

99. Technology-Based Effluent Limitation. Treatment requirements under Section 301(b) of the Clean Water Act that represent the minimum level of control that must be imposed in a permit issued under Section 402 of the Clean Water Act. (8-24-94)

XX. Thermal Shock. A rapid temperature change that causes aquatic life to become disoriented or more susceptible to predation or disease.

100. Total Maximum Daily Load (TMDL). The sum of the individual wasteload allocations (WLAs) for point sources, load allocations (LAs) for nonpoint sources, and natural background. Such load shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality. (8-24-94)

101. Toxicity Test. A procedure used to determine the toxicity of a chemical or an effluent using living organisms. A toxicity test measures the degree of response of an exposed test organism to a specific chemical or effluent. (8-24-94)

102. Toxic Substance. Any substance, material or disease-causing agent, or a combination thereof, which after discharge to waters of the State and upon exposure, ingestion, inhalation or assimilation into any organism (including humans), either directly from the environment or indirectly by ingestion through food chains,

will cause death, disease, behavioral abnormalities, malignancy, genetic mutation, physiological abnormalities (including malfunctions in reproduction) or physical deformations in affected organisms or their offspring. Toxic substances include, but are not limited to, the one hundred twenty-six (126) priority pollutants identified by EPA pursuant to Section 307(a) of the federal Clean Water Act. (8-24-94)

103. Treatment. A process or activity conducted for the purpose of removing pollutants from wastewater. (7-1-93)

104. Treatment System. Any physical facility or land area for the purpose of collecting, treating, neutralizing or stabilizing pollutants including treatment by disposal plants, the necessary intercepting, outfall and outlet sewers, pumping stations integral to such plants or sewers, equipment and furnishing thereof and their appurtenances. A treatment system may also be known as a treatment facility. (4-11-06)

105. Twenty-Four Hour Average. The mean of at least two (2) appropriately spaced measurements, as determined by the Department, calculated over a period of twenty-four (24) consecutive hours. When three (3) or more measurements have been taken, and if any measurement is greater or less than five-tenths (0.5) times the mean, additional measurements over the twenty-four (24)-hour period may be needed to obtain a more representative mean. (3-20-97)

106. Unique Ecological Significance. The attribute of any stream or water body which is inhabited or supports an endangered or threatened species of plant or animal or a species of special concern identified by the Idaho Department of Fish and Game, which provides anadromous fish passage, or which provides spawning or rearing habitat for anadromous or desirable species of lake dwelling fishes. (8-24-94)

107. Wasteload Allocation (WLA). The portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. (8-24-94)

108. Wastewater. Unless otherwise specified, sewage, industrial waste, agricultural waste, and associated solids or combinations of these, whether treated or untreated, together with such water as is present. (7-1-93)

109. Water Body Unit. Includes all named and unnamed tributaries within a drainage and is considered a single unit unless designated otherwise. (4-5-00)

110. Water Pollution. Any alteration of the physical, thermal, chemical, biological, or radioactive properties of any waters of the state, or the discharge of any pollutant into the waters of the state, which will or is likely to create a nuisance or to render such waters harmful, detrimental or injurious to public health, safety or welfare, or to fish and wildlife, or to domestic, commercial, industrial, recreational, aesthetic, or other beneficial uses. (8-24-94)

111. Water Quality-Based Effluent Limitation. An effluent limitation that refers to specific levels of water quality that are expected to render a body of water suitable for its designated or existing beneficial uses. (8-24-94)

112. Water Quality Limited Water Body. After monitoring, evaluation of required pollution controls, and consultation with the appropriate basin and watershed advisory groups, a water body identified by the Department, which does not meet applicable water quality standards, and/or is not expected to meet applicable water quality standards after the application of required pollution controls. A water body identified as water quality limited shall require the development of a TMDL or other equivalent process in accordance with Section 303 of the Clean Water Act and Sections 39-3601 et seq., Idaho Code. (3-20-97)

113. Waters and Waters Of The State. All the accumulations of water, surface and underground, natural and artificial, public and private, or parts thereof which are wholly or partially within, which flow through or border upon the state. (7-1-93)

114. Watershed. The land area from which water flows into a stream or other body of water which

drains the area.

(3-20-97)

115. Watershed Advisory Group. An advisory group appointed by the Director, with the advice of the appropriate Basin Advisory Group, which will recommend to the Department those specific actions needed to control point and nonpoint sources of pollution affecting water quality limited water bodies within the watershed. Members of each watershed advisory group shall be representative of the industries and interests affected by the management of that watershed, along with representatives of local government and the land managing or regulatory agencies with an interest in the management of that watershed and the quality of the water bodies within it. (3-20-97)

116. Whole-Effluent Toxicity. The aggregate toxic effect of an effluent measured directly with a toxicity test. (8-24-94)

117. Zone of Initial Dilution (ZID). An area within a Department authorized mixing zone where acute criteria may be exceeded. This area ~~should be as small as practicable~~ shall be no larger than necessary and assure that drifting organisms are not exposed to acute concentrations for more than one (1) hour more than once in three (3) years. The actual size of the ZID will be determined by the Department for a discharge on a case-by-case basis, taking into consideration mixing zone modeling and associated size recommendations and any other pertinent chemical, physical, and biological data available. (4-11-06)

(Break in Continuity of Sections)

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.** A mixing zone, including its size, configuration and location, must be authorized by the Department each time a permit is issued or renewed and is 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. (x-xx-15)

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 meets an approved TMDL allocation or other applicable plans or analyses; such as 4b implementation plans, watershed loading analyses, or facility-specific water quality analyses; that demonstrate that authorizing a mixing zone is consistent with achieving compliance with water quality standards in the receiving water. ~~Mixing zones shall not be authorized for E. coli.~~ (x-xx-15)

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 or more parameters may be exceeded within the zone of initial dilution inside the mixing zone. All water quality criteria must be met at the boundary of any mixing zone under its design conditions. (x-xx-15)

c. The size of mixing zone(s) and the concentration of pollutant(s) present shall be based on the ~~point source wastewater~~ permitted design flow. The Department shall not authorize a mixing zone that is determined to be larger than is necessary. (x-xx-15)

d. Mixing zones shall not cause unreasonable interference with, or danger to, beneficial uses; ~~including species listed under the Endangered Species Act.~~ Unreasonable interference with, or danger to, beneficial uses includes, but is not limited to, the following: (x-xx-15)

i. Blocking ~~or impeding~~ fish passage or preventing successful spawning, egg incubation or rearing. ~~This includes impacts to critical habitat for Endangered Species Act listed species.~~ (x-xx-15)

ii. Heat in the discharge that causes thermal shock, lethality, or loss of cold water refugia. (x-xx-15)

iii. Bioaccumulation of pollutants (as defined in Section 010) greater than the bioaccumulation factor used in calculation of water column criteria or where tissue levels in aquatic organisms are higher than the criteria would predict. (x-xx-15)

iv. Lethality to aquatic life passing through the mixing zone. (x-xx-15)

v. Concentrations of pollutants that exceed Maximum Contaminant Levels at drinking water intake structures. (x-xx-15)

vi. Unreasonable interference with recreational uses. Conditions which impede or prohibit recreation in or on the water body. Mixing zones shall not be authorized for E. coli. (x-xx-15)

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 ~~ed wastewater.~~ (x-xx-15)

f. Multiple mixing zones can 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. (x-xx-15)

g. Adjacent mixing zones of independent activities shall not overlap. (x-xx-15)

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:

(x-xx-15)

i. For flowing waters:

(1) The width of a mixing zone is not to exceed twenty-five percent (25%) of the stream width; and (x-xx-15)

~~ii.~~ (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. (x-xx-15)

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. Reservoirs with a mean detention time of fifteen (15) days or greater shall be considered nonflowing waters for this purpose.

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. (x-xx-15)

j. The following elements shall be considered when designing an outfall: (x-xx-15)

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 or where recreational activities are impacted by the plume.

02. Points of Compliance for Nonpoint Source Permitted Discharges as Alternatives to Mixing Zones. While it is recognized that mixing does occur for nonpoint sources, due to their generally intermittent and diffuse nature, the specification of mixing zones for nonpoint sources may not be practicable. Thus, the Department may establish points for monitoring compliance with ambient water quality criteria in association with authorized nonpoint discharges. Specification of mixing zones for some nonpoint source discharges, stormwater, and 404 dredge and fill activities may not be practicable due to their generally intermittent and diffuse nature. Rather, the Department may establish points of compliance with ambient water quality criteria. These alternatives to a mixing zone are still subject to requirements outlined in Subsection 060.01.d. (x-xx-15)