

# Table of Contents

## 16.01.02 - WATER QUALITY STANDARDS AND WASTEWATER TREATMENT REQUIREMENTS

000. (RESERVED).	4
001. LEGAL AUTHORITY.	4
002. TITLE AND SCOPE.	4
003. DEFINITIONS AND ABBREVIATIONS.	4
004. -- 049. (RESERVED).	13
050. ADMINISTRATIVE POLICY.	13
051. ANTIDegradation POLICY.	14
052. PUBLIC PARTICIPATION.	14
053. BENEFICIAL USE SUPPORT STATUS.	15
054. WATER QUALITY LIMITED WATERS AND TMDLS.	15
055. OUTSTANDING RESOURCE WATERS (ORW).	16
056. SPECIAL RESOURCE WATERS.	18
057. -- 059. (RESERVED).	18
060. MIXING ZONE POLICY.	18
061. -- 069. (RESERVED).	19
070. APPLICATION OF STANDARDS.	19
071. -- 079. (RESERVED).	19
080. VIOLATION OF WATER QUALITY STANDARDS.	20
081. -- 089. (RESERVED).	20
090. ANALYTICAL PROCEDURES.	20
091. -- 099. (RESERVED).	21
100. SURFACE WATER USE CLASSIFICATIONS.	21
101. USE DESIGNATIONS FOR SURFACE WATERS.	22
102. -- 109. (RESERVED).	22
110. PANHANDLE BASIN.	22
111. -- 119. (RESERVED).	26
120. CLEARWATER BASIN.	26
121. -- 129. (RESERVED).	29
130. SALMON BASIN.	29
131. -- 139. (RESERVED).	32
140. SOUTHWEST IDAHO BASIN.	32
141. -- 149. (RESERVED).	36
150. UPPER SNAKE BASIN.	36
151. -- 159. (RESERVED).	41
160. BEAR RIVER BASIN.	41
161. -- 199. (RESERVED).	43
200. GENERAL SURFACE WATER QUALITY CRITERIA.	43
201. -- 249. (RESERVED).	44
250. SURFACE WATER QUALITY CRITERIA FOR USE CLASSIFICATIONS.	44
251. -- 259. (RESERVED).	63

260. VARIANCES FROM WATER QUALITY STANDARDS. ....	63
261. -- 274. (RESERVED). ....	64
275. SITE-SPECIFIC SURFACE WATER QUALITY CRITERIA. ....	64
276. DISSOLVED OXYGEN STANDARDS FOR WATERS DISCHARGED FROM DAMS, RESERVOIRS, AND HYDROELECTRIC FACILITIES. ....	66
277. (RESERVED). ....	67
278. BOISE RIVER - SWB 270 AND SWB 280 -- SALMONID SPAWNING AND DISSOLVED OXYGEN. ....	67
279. (RESERVED). ....	68
280. ROCK CREEK, CEDAR DRAW, DEEP CREEK AND BIG WOOD RIVER - CANAL SYSTEM. ....	68
281. (RESERVED). ....	68
282. SOUTH FORK COEUR D'ALENE RIVER AND ALL TRIBUTARY WATERS - PB-130S, PB-140S, PB-121S, PB-142S, PB-143S, PB-145S, PB-146S, PB-147S, PB-148S, UNDESIGNATED TRIBUTARIES - SITE-SPECIFIC CRITERIA FOR METALS. ....	68
283. -- 298. (RESERVED). ....	68
299. GROUND WATER QUALITY STANDARDS. ....	68
300. -- 349. (RESERVED). ....	70
350. RULES GOVERNING NONPOINT SOURCE ACTIVITIES. ....	70
351. -- 399. (RESERVED). ....	73
400. RULES GOVERNING POINT SOURCE DISCHARGES. ....	73
401. POINT SOURCE WASTEWATER TREATMENT REQUIREMENTS. ....	74
402. REVIEW OF PLANS FOR WASTE TREATMENT FACILITIES. ....	76
403. -- 419. (RESERVED). ....	76
420. POINT SOURCE SEWAGE WASTEWATER DISCHARGE RESTRICTIONS. ....	76
421. -- 439. (RESERVED). ....	78
440. POINT SOURCE NON-SEWAGE WASTEWATER DISCHARGE RESTRICTIONS. ....	78
441. -- 459. (RESERVED). ....	78
460. SUBSURFACE SEWAGE OR WASTE DISPOSAL. ....	78
461. -- 479. (RESERVED). ....	78
480. WASTE DISPOSAL AND INJECTION WELLS. ....	78
481. -- 599. (RESERVED). ....	78
600. LAND APPLICATION OF WASTEWATER(S) OR RECHARGE WATERS. ....	78
601. -- 649. (RESERVED). ....	79
650. SLUDGE USAGE. ....	79
651. -- 799. (RESERVED). ....	80
800. HAZARDOUS AND DELETERIOUS MATERIAL STORAGE. ....	80
801. -- 848. (RESERVED). ....	80
849. OIL FILLED ELECTRIC EQUIPMENT. ....	80
850. HAZARDOUS MATERIAL SPILLS. ....	81
851. PETROLEUM RELEASE REPORTING, INVESTIGATION, AND CONFIRMATION. ....	81

852. PETROLEUM RELEASE RESPONSE AND CORRECTIVE ACTION. .... 82  
853. -- 899. (RESERVED). .... 86  
900. GAS SUPERSATURATION. .... 86  
901. -- 994. (RESERVED). .... 87  
995. INCORPORATION BY REFERENCE. .... 87  
996. ADMINISTRATIVE PROVISIONS. .... 87  
997. CONFIDENTIALITY OF RECORDS. .... 87  
998. INCLUSIVE GENDER AND NUMBER. .... 87  
999. SEVERABILITY. .... 87

**16.01.02 - WATER QUALITY STANDARDS AND  
WASTEWATER TREATMENT REQUIREMENTS**

**000. (RESERVED).**

**001. LEGAL AUTHORITY.**

Pursuant to Sections 39-105 and 39-3601 et seq., Idaho Code, the Director is directed to formulate and recommend to the Board, such rules and regulations and standards as may be necessary to deal with the problems related to personal health and water pollution. The Director is further charged with the supervision and administration of a system to safeguard the quality of the waters of the state including the enforcement of standards relating to the discharge of effluent into the waters of the state. Authority to adopt rules, regulations and standards as are necessary and feasible to protect the environment and health of the citizens of the state is vested in the Board pursuant to Section 39-107, Idaho Code. (3-20-97)

**002. TITLE AND SCOPE.**

01. Title. These rules are to be known and cited as Idaho Department of Health and Welfare Rules, Title 01, Chapter 02, "Water Quality Standards and Wastewater Treatment Requirements." (7-1-93)

02. Scope. These rules designate uses which are to be protected in and of the waters of the state and establish standards of water quality protective of those uses. Restrictions are placed on the discharge of wastewaters and on human activities which may adversely affect water quality in the waters of the state. In addition, unique and outstanding waters of the state are recognized. These rules do not provide any legal basis for an additional permit system, nor can they be construed as granting to the Department any authority not identified in the Idaho Code. (7-1-93)

**003. DEFINITIONS AND ABBREVIATIONS.**

For the purpose of the rules contained in Title 01, Chapter 02, the following definitions and abbreviations apply: (7-1-93)

01. Acute. Involving a stimulus severe enough to rapidly induce a response; in aquatic toxicity tests, a response measuring lethality observed in ninety-six (96) hours or less is typically considered acute. When referring to human health, an acute effect is not always measured in terms of lethality. (3-20-97)

02. Acute Criteria. 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 resulting from exposure to the toxic substance or effluent. Acute criteria will adequately protect the designated aquatic life use if not exceeded more than once every three years. (8-24-94)

03. Acute Toxicity. The existence of mortality or injury to aquatic organisms resulting from a single or short-term (i.e., ninety-six (96) hours or less) exposure to a substance. As applied to toxicity tests, acute toxicity refers to the response of aquatic test organisms to a concentration of a toxic substance or effluent which results in a LC-50. (3-20-97)

04. 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)

05. Appropriate Reference Condition. The condition existing at 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 under minimally impacted conditions. (8-24-94)

06. 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)
07. 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)
08. Basin Advisory Group. No less than one advisory group named by the Director, in consultation with the designated agencies, for each of the state's six 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)
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)
11. Biochemical Oxygen Demand (BOD). The measure of the amount of oxygen necessary to satisfy the biochemical oxidation requirements of organic materials at the time the sample is collected; unless otherwise specified, this term will mean the five (5) day BOD incubated at twenty (20) degrees C. (8-24-94)
12. 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)
13. Biota. The plants and animals of a specified area. (7-1-93)
14. Board. The Idaho Board of Health and Welfare. (7-1-93)
15. Chronic. Involving a stimulus that lingers or continues for a relatively long period of time, often one-tenth of the life span or more. Chronic should be considered a relative term depending on the life span of an organism. The measurement of a chronic effect can be reduced growth, reduced reproduction, etc., in addition to lethality. (8-24-94)
16. Chronic Criteria. 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 resulting from exposure to the toxic substance or effluent. Chronic criteria will adequately protect the designated aquatic life use if not exceeded more than once every three (3) years. (8-24-94)
17. Chronic Toxicity. The existence of mortality, injury, reduced growth, impaired reproduction, or any other adverse effect on aquatic organisms resulting from a long-term (i.e., one-tenth (0.1) or more of the organism's life span) exposure to a substance. As applied to toxicity tests, chronic toxicity refers to the response of aquatic organisms to a concentration of a toxic substance or effluent which results in an IC-25. (8-24-94)
18. 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)
19. 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)
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 Health and Welfare. (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 Health and Welfare Rules, Title 01, Chapter 02, "Water Quality Standards and Wastewater Treatment Requirements," Sections 110 through 160 and 299, whether or not the uses are being attained. (8-24-94)
  25. Desirable Species. Species indigenous to the area or those introduced by the Idaho Department of Fish and Game. (7-1-93)
  26. Director. The Director of the Idaho Department of Health and Welfare 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. (8-24-94)
  28. Disinfection. A method of reducing the pathogenic or objectionable organisms by means of chemicals or other acceptable means. (7-1-93)
  29. Dissolved Oxygen (DO). The measure of the amount of oxygen dissolved in the water, usually expressed in mg/l. (7-1-93)
  30. Dissolved Product. Petroleum product constituents found in solution with water. (8-24-94)
  31. 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)
  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. 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 Health and Welfare Rules, Title 01, Chapter 02, "Water Quality Standards and Wastewater Treatment Requirements." (8-24-94)
36. 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)
37. Fecal Coliform. The portion of the coliform group of bacteria present in the gut and feces of warm-blooded animals, usually expressed as number of organisms/one hundred (100) ml of sample. (7-1-93)
38. Four (4) Day Average. The mean of the twenty-four (24) hour average values calculated over a period of ninety-six (96) consecutive hours. (3-20-97)
39. 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)
40. 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, 250, 275 (if applicable), and 299 or with the reference streams or conditions approved by the Director in consultation with the appropriate basin advisory group. (3-20-97)
41. Geometric Mean. The geometric mean of "n" quantities is the "nth" root of the product of the quantities. (7-1-93)
42. Ground Water. Subsurface water comprising the zone of saturation. (8-24-94)
43. 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)
44. 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)
45. 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 or more excursions below the design flow can occur. (8-24-94)
46. Hypolimnion. The deepest zone in a thermally-stratified body of water. It is fairly uniform in temperature and lies beneath a zone of water which exhibits a rapid temperature drop with depth of at least one (1) degree C per meter. (3-20-97)
47. Inhibition Concentration-25 (IC-25). A point estimate of the toxicant concentration that would cause a twenty-five percent (25%) reduction in a non-lethal biological measurement of the test organisms, such as reproduction or growth. Determined using curve fitting with an assumption of a continuous dose-response relationship. An IC-25 is approximately the analogue of NOEC. (8-24-94)
48. Instantaneous Concentration. A concentration of a substance measured at any moment (instant) in time. (8-24-94)

49. 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)
50. Intermittent Stream. A stream which has a period of zero flow for at least one week during most years. Where flow records are available, a stream with a 7Q2 hydrologically-based design flow of less than one-tenth (0.1) cfs is considered intermittent. Streams with perennial pools which create significant aquatic life uses are not intermittent. (3-20-97)
51. Land Application. A process or activity involving application of wastewater, surface water, or semi-liquid material to the land surface for the purpose of disposal, pollutant removal, or ground water recharge. (8-24-94)
52. 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)
53. Load Allocation (LA). 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. (8-24-94)
54. Loading Capacity. The greatest amount of pollutant loading that a water can receive without violating water quality standards. (8-24-94)
55. Lower Water Quality. A measurable adverse change in a chemical, physical, or biological parameter of water relevant to a beneficial use, and which can be expressed numerically. Measurable change is determined by a statistically significant difference between sample means using standard methods for analysis and statistical interpretation appropriate to the parameter. Statistical significance is defined as the ninety-five percent (95%) confidence limit when significance is not otherwise defined for the parameter in standard methods or practices. (3-20-97)
56. Lowest Observed Effect Concentration (LOEC). The lowest concentration of a toxicant or an effluent that results in observable adverse effects in the aquatic test population. (8-24-94)
57. Man-made Waterways. Canals, flumes, ditches, and similar features, constructed for the purpose of water conveyance. (7-1-93)
58. Milligrams Per Liter (mg/l). Milligrams of solute per liter of solution, equivalent to parts per million, assuming unit density. (7-1-93)
59. 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)
60. National Pollutant Discharge Elimination System (NPDES). Point source permitting program established pursuant to Section 402 of the federal Clean Water Act. (8-24-94)
61. 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)
62. 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)
63. No Observed Adverse Effect Level (NOAEL). A threshold dose of a toxic substance or an effluent below which no adverse biological effects are observed, as identified from chronic or subchronic human epidemiology studies or animal exposure studies. (8-24-94)
64. No Observed Effect Concentration (NOEC). The highest concentration of a toxic substance or an effluent at which no adverse effects are observed on the aquatic test organisms. Determined using hypothesis testing with the assumption of a noncontinuous threshold model of the dose-response relationship. (8-24-94)
65. 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)
66. Nutrients. The major substances necessary for the growth and reproduction of aquatic plant life, consisting of nitrogen, phosphorus, and carbon compounds. (7-1-93)
67. One (1) day Minimum. The lowest daily instantaneous value measured. (3-20-97)
68. One (1) 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 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)
69. Operator. Any person presently or who was at any time during a release in control of, or having responsibility for, the daily operation of the PST system. (7-1-93)
70. 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)
71. 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)
72. Owner. Any person who owns or owned a PST system any time during a release and the current owner of the property where the PST system is or was located. (7-1-93)
73. 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)
74. Petroleum Products. Products derived from petroleum through various refining processes. (7-1-93)
75. Petroleum Storage Tank (PST) System. Any one 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)
76. 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)
77. 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)
78. Potable Water. A water which is free from impurities in such amounts that it is safe for human consumption without treatment. (7-1-93)
79. Primary Treatment. Processes or methods that serve as the first stage treatment of wastewater, intended for removal of suspended and settleable solids by gravity sedimentation; provides no changes in dissolved and colloidal matter in the sewage or wastes flow. (7-1-93)
80. 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)
81. Receiving Waters. Those waters which receive pollutants from point or nonpoint sources. (7-1-93)
82. Recharge. The process of adding water to the zone of saturation. (7-1-93)
83. Recharge Water. Water that is specifically utilized for the purpose of adding water to the zone of saturation. (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: (a) by any acts or omissions, caused, contributed to or exacerbated an unauthorized release of hazardous materials; (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 (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. Saturated Zone. Zone or layer beneath the earth's surface in which all of the pore spaces of rock or soil are filled with water. (7-1-93)
89. Secondary Treatment. Processes or methods for the supplemental treatment of wastewater, usually following primary treatment, to affect additional improvement in the quality of the treated wastes by biological means of various types which are designed to remove or modify organic matter. (7-1-93)
90. Seven (7) Day Mean. The average of the daily mean values calculated over a period of seven (7) consecutive days. (3-20-97)
91. 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)
92. Short-Term or Temporary Activity. An activity which 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. (3-20-97)
93. 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)
94. Sludge. The semi-liquid mass produced by partial dewatering of potable or spent process waters or wastewater. (7-1-93)
95. Special Resource Water. Those specific segments or bodies of water which are recognized as needing intensive protection: (7-1-93)
- a. To preserve outstanding or unique characteristics; or (7-1-93)

- b. To maintain current beneficial use. (7-1-93)
96. 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)
97. State. The state of Idaho. (7-1-93)
98. 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)
99. Steady-State Model. A fate and transport model that uses constant values of input variables to predict constant values of receiving water quality concentrations. (8-24-94)
100. Subsurface Disposal. Disposal of effluent below ground surface, including, but not limited to, drainfields or sewage beds. (7-1-93)
101. Suspended Sediment. Organic and inorganic particulate matter which has been removed from its site of origin and measured while suspended in surface water. (7-1-93)
102. 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)
103. 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)
104. 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)
105. 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)
106. Treatment. A process or activity conducted for the purpose of removing pollutants from wastewater. (7-1-93)
107. 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. (7-1-93)
108. Trihalomethane (THM). THM means one of the family of organic compounds named as derivatives of methane, wherein three (3) of the four (4) hydrogen atoms in the molecular structure of methane are substituted by one (1) of the chemical elements chlorine, bromine or iodine. (7-1-93)
109. Twenty-Four (24) 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)

110. 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)

111. 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)

112. 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)

113. 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)

114. 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)

115. 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)

116. 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)

117. Watershed. The land area from which water flows into a stream or other body of water which drains the area.  
(3-20-97)

118. 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)

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

**004. -- 049. (RESERVED).**

**050. ADMINISTRATIVE POLICY.**

01. Apportionment of Water. The adoption of water quality standards and the enforcement of such standards is not intended to conflict with the apportionment of water to the state through any of the interstate compacts or court decrees, or to interfere with the rights of Idaho appropriators, either now or in the future, in the utilization of the water appropriations which have been granted to them under the statutory procedure, or to interfere

with water quality criteria established by mutual agreement of the participants in interstate water pollution control enforcement procedures. (7-1-93)

02. Protection of Waters of the State. (7-1-93)

a. Wherever attainable, surface waters of the state shall be protected for beneficial uses which for surface waters includes all recreational use in and on the water surface and the preservation and propagation of desirable species of aquatic biota; (8-24-94)

b. Wherever attainable, ground waters of the state shall be protected for beneficial uses including potable water supplies. Ground waters existing at higher than potable water quality or ground waters which are highly vulnerable to contamination due to the geologic and hydrologic characteristics of areas overlying their occurrence, may be designated by the Department as special resource waters. (8-24-94)

c. In all cases, existing beneficial uses of the waters of the state will be protected. (7-1-93)

03. Annual Program. To fully achieve and maintain water quality in the state, it is the intent of the Department to develop and implement an enforcement program through the continuing planning process. The Department's planned program for water pollution control will be defined and published annually in a "Water Quality Program Strategy" document. (7-1-93)

04. Program Integration. Whenever an activity or class of activities is subject to provisions of these rules, as well as other regulations or standards of either this Department or other Governmental agency, the Department will seek and employ those methods necessary and practicable to integrate the implementation, administration and enforcement of all applicable regulations through a single program. Integration will not, however, be affected to the extent that applicable provisions of these rules would fail to be achieved or maintained unless the Department's role in these cases is limited by state statute or federal law. (7-1-93)

05. Revisions. These rules are subject to amendment as technical data, surveillance programs, and technological advances require. Any revisions made to these rules shall be in accordance with Sections 39-101, et seq., and 67-5201, et seq., Idaho Code. (8-24-94)

**051. ANTIDegradation Policy.**

01. Maintenance of Existing Uses for All Waters. The existing in stream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected. (7-1-93)

02. High Quality Waters. Where the quality of the waters exceeds levels necessary to support propagation of fish, shellfish and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the Department finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the Department's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In allowing such degradation or lower water quality, the Department shall assure water quality adequate to protect existing uses fully. Further, the Department shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and cost-effective and reasonable best management practices for nonpoint source control. In providing such assurance, the Department may enter together into an agreement with other state of Idaho or federal agencies in accordance with Sections 67-2326 through 67-2333, Idaho Code. (7-1-93)

03. Outstanding Resource Waters. Where high quality waters constitute an outstanding national resource, such as waters of national and state parks and wildlife refuges and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected from the impacts of point and nonpoint source activities. (3-20-97)

**052. PUBLIC PARTICIPATION.**

In providing general coordination of water quality programs within each basin, in carrying out the duties of the Basin Advisory Groups as assigned, and in carrying out the provisions of Sections 39-3601, et seq., Idaho Code, the

Director and the Basin Advisory Groups shall employ all means of public involvement deemed necessary, including the public involvement required under Section 67-2340 through Section 67-2347, Idaho Code, Section 051 of this rule or required in Chapter 52, Title 67, Idaho Code, and shall cooperate fully with the public involvement or planning processes of other appropriate public agencies. (3-20-97)

**053. BENEFICIAL USE SUPPORT STATUS.**

In determining whether a water body fully supports designated and existing beneficial uses, the Department shall determine whether all of the applicable water quality standards are being achieved, including any criteria developed pursuant to these rules, and whether a healthy, balanced biological community is present. The Department shall utilize biological and aquatic habitat parameters listed below in the "Water Body Assessment Guidance," Idaho Department of Health and Welfare, Division of Environmental Quality, 1996, as a guide to assist in the assessment of beneficial use status. These parameters are not to be considered or treated as individual water quality criteria or otherwise interpreted or applied as water quality standards. (3-20-97)

01. Aquatic Habitat Parameters. These parameters may include, but are not limited to, stream width, stream depth, stream shade, measurements of sediment impacts, bank stability, water flows, and other physical characteristics of the stream that affect habitat for fish, macroinvertebrates or other aquatic life; and (3-20-97)

02. Biological Parameters. These parameters may include, but are not limited to, evaluation of aquatic macroinvertebrates including Ephemeroptera, Plecoptera and Trichoptera (EPT), Hilsenhoff Biotic Index, measures of individual feeding groups, and the variety and number of fish or other aquatic life to determine biological community diversity and functionality. (3-20-97)

**054. WATER QUALITY LIMITED WATERS AND TMDLS.**

01. After Determining That Water Body Does Not Support Use. After determining that a water body does not fully support designated or existing beneficial uses in accordance with Section 053, the Department, in consultation with the applicable basin and watershed advisory groups, shall evaluate whether the application of required pollution controls to sources of pollution affecting the impaired water body would restore the water body to full support status. This evaluation may include the following: (3-20-97)

a. Identification of significant sources of pollution affecting the water body by past and present activities; (3-20-97)

b. Determination of whether the application of required or cost-effective interim pollution control strategies to the identified sources of pollution would restore the water body to full support status within a reasonable period of time; (3-20-97)

c. Consultation with appropriate basin and watershed advisory groups, designated agencies and landowners to determine the feasibility of, and assurance that required or cost-effective interim pollution control strategies can be effectively applied to the sources of pollution to achieve full support status within a reasonable period of time; (3-20-97)

d. If pollution control strategies are applied as set forth in this Section, the Department shall subsequently monitor the water body to determine whether application of such pollution controls were successful in restoring the water body to full support status. (3-20-97)

02. Water Bodies Not Fully Supporting Beneficial Uses. After following the process identified in Subsection 054.01, water bodies not fully supporting designated or existing beneficial uses and not meeting applicable water quality standards despite the application of required pollution controls shall be identified by the Department as water quality limited water bodies, and shall require the development of TMDLs or other equivalent processes, as described under Section 303(d)(1) of the Clean Water Act. A list of water quality limited water bodies shall be published periodically by the Department in accordance with Section 303(d) of the Clean Water Act and be subject to public review prior to submission to EPA for approval. Informational TMDLs may be developed for water bodies fully supporting beneficial uses as described under Section 303(d)(3) of the Clean Water Act, however, they will not be subject to the provisions of this Section. (3-20-97)

03. Priority of TMDL Development. The priority of TMDL development for water quality limited water bodies identified in Subsection 054.02 shall be determined by the Director in consultation with the Basin Advisory Groups as described in Sections 39-3601, et seq., Idaho Code, depending upon the severity of pollution and the uses of the water body, including those of unique ecological significance. Water bodies identified as a high priority through this process will be the first to be targeted for development of a TMDL or equivalent process. (3-20-97)

04. High Priority Provisions. Until a TMDL or equivalent process is completed for a high priority water quality limited water body, new or increased discharge of pollutants which have caused the water quality limited listing may be allowed if interim changes, such as pollutant trading, or some other approach for the pollutant(s) of concern are implemented and the total load remains constant or decreases within the watershed. Interim changes shall maximize the use of cost effective measures to cap or decrease controllable human-caused discharges from point and nonpoint sources. Once the TMDL or equivalent process is completed, any new or increased discharge of causative pollutants will be allowed only if consistent with the approved TMDL. Nothing in this section shall be interpreted as requiring best management practices for agricultural operations which are not adopted on a voluntary basis. (3-20-97)

05. Medium and Low Priority Provisions. Until TMDLs or equivalent processes are developed for water quality limited water bodies identified as medium or low priority, the Department shall require interim changes in permitted discharges from point sources and best management practices for nonpoint sources deemed necessary to prohibit further impairment of the designated or existing beneficial uses. Nothing in this section shall be interpreted as requiring best management practices for agricultural operations which are not adopted on a voluntary basis. (3-20-97)

a. In determining the necessity for interim changes to existing activities and limitations upon proposed activities, the Department, in consultation with basin and watershed advisory groups, shall evaluate the water quality impacts caused by past regulated and unregulated activities in the affected watershed. (3-20-97)

b. Consideration of interim changes shall maximize the use of cost-effective and timely measures to ensure no further impairment of designated or existing uses. (3-20-97)

06. Pollutant Trading. Development of TMDLs or equivalent processes or interim changes under these rules may include pollutant trading with the goal of restoring water quality limited water bodies to compliance with water quality standards. (3-20-97)

07. Idaho Agriculture Pollution Abatement Plan. Use of best management practices by agricultural activities is strongly encouraged in high, medium and low priority watersheds. The Idaho Agriculture Pollution Abatement Plan is the source for best management practices for the control of nonpoint sources of pollution for agriculture. (3-20-97)

**055. OUTSTANDING RESOURCE WATERS (ORW).**

01. Nominations for Outstanding Resource Water Designation. Any person may request, in writing to the Board, that a stream segment be considered for designation as an outstanding resource water. To be considered for ORW designation, nominations must be received by the Board by April 1 or ten (10) days after the adjournment sine die of that year's regular session of the legislature, whichever is later, for consideration during the next regular session of the legislature. All nominations shall be addressed to:

Idaho Board of Health and Welfare  
Department of Health and Welfare  
Outstanding Resource Water Nomination  
450 W. State Street, 10th Floor  
P.O. Box 83720  
Boise, Idaho 83720-0036

The nomination shall include the following information: (3-23-98)



- a. The name, description and location of the stream segment; (7-1-93)
  - b. The boundaries upstream and downstream of the stream segment; (7-1-93)
  - c. An explanation of what makes the segment a candidate for the designation; (7-1-93)
  - d. A description of the existing water quality and any technical data upon which the description is based as can be found in the most current basin status reports; (7-1-93)
  - e. A discussion of the types of nonpoint source activities currently being conducted that may lower water quality, together with those activities that are anticipated during the next two (2) years, as described in the most current basin status reports; and (7-1-93)
  - f. Any additional evidence to substantiate such a designation. (7-1-93)
02. **Public Notice and Public Comment.** The Board will give public notice that one (1) or more stream segments are being considered for recommendation to the legislature as outstanding resource waters. Public notice will also be given if a public hearing is being held. Public comments regarding possible designation will be accepted by the Board for a period of at least forty-five (45) days. Public comments may include, but are not limited to, discussion of socio-economic considerations; fish, wildlife or recreational values; and other beneficial uses. (7-1-93)
03. **Public Hearing.** A public hearing(s) may be held at the Board's discretion on any stream segment nominated for ORW designation. Public notice will be given if a hearing is held. The decision to hold a hearing may be based on the following criteria: (7-1-93)
- a. One (1) or more requests contain supporting documentation and valid reasons for designation; (7-1-93)
  - b. A stream segment is generally recognized as constituting an outstanding national resource, such as waters of national and state parks, and wildlife refuges; (7-1-93)
  - c. A stream segment is generally recognized as waters of exceptional recreational or ecological significance; (7-1-93)
  - d. The Board shall give special consideration to holding a hearing and to recommending for designation by the legislature, waters which meet criteria found in Subsection 055.03.b. and 055.03.c; (3-20-97)
  - e. Requests for a hearing will be given due consideration by the Board. Public hearings may be held at the Board's discretion. (7-1-93)
04. **Board Review.** The Board shall review the stream segments nominated for ORW designation and based on the hearing or other written record, determine the segments to recommend as ORWs to the legislature. The Board shall submit a report for each stream segment it recommends for ORW designation. The report shall contain the information specified in Subsection 055.01 and information from the hearing record or other written record concerning the impacts the designation would have on socio-economic conditions; fish, wildlife and recreational values; and other beneficial uses. The Department shall then prepare legislation for each segment that will be recommended to the legislature as an ORW. The legislation shall provide for the listing of designated segments in these regulations without the need for formal rule-making procedures, pursuant to Sections 67-5200, et seq., Idaho Code. (3-20-97)
05. **Designated Waters.** Those stream segments designated by the legislature as ORWs are listed in Sections 110 through 160. (7-1-93)
06. **Restriction of Nonpoint Source Activities on Outstanding Resource Waters.** Nonpoint source activities on ORWs shall be restricted as specified in Subsection 350.04. (7-1-93)

**056. SPECIAL RESOURCE WATERS.**

01. Designations. Waters of the state may be designated as special resource waters. Designation as a special resource water recognizes at least one (1) of the following characteristics: (7-1-93)

a. The water is of outstanding high quality, exceeding both criteria for primary contact recreation and cold water biota; (7-1-93)

b. The water is of unique ecological significance; (7-1-93)

c. The water possesses outstanding recreational or aesthetic qualities; (7-1-93)

d. Intensive protection of the quality of the water is in paramount interest of the people of Idaho; (7-1-93)

e. The water is a part of the National Wild and Scenic River System, is within a State or National Park or wildlife refuge and is of prime or major importance to that park or refuge; (7-1-93)

f. Intensive protection of the quality of the water is necessary to maintain an existing, but jeopardized beneficial use; or (7-1-93)

02. Designated Waters. Those waters of the state determined to be special resource waters are listed in Sections 110 through 160 and Subsection 299.03. (7-1-93)

03. Restrictions of Point Source Discharges to Special Resource Waters and their Tributaries. Point source discharges to special resource waters and their tributaries shall be restricted as specified in Subsection 400.01.b. (7-1-93)

**057. -- 059. (RESERVED).**

**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)

**061. -- 069. (RESERVED).**

**070. APPLICATION OF STANDARDS.**

01. Multiple Criteria. In the application of the use classification, the most stringent criterion of a multiple criteria applies. (7-1-93)

02. Application of Standards to Nonpoint Source Activities. The application of water quality standards to nonpoint source activities shall be in accordance with Section 350. (7-1-93)

03. Application of Standards to Point Source Discharges. The application of water quality standards to point source discharges shall be in accordance with Sections 400 through 402, 420 and 440. (7-1-93)

04. Applicability of Gas Supersaturation Standard. The application of gas supersaturation standard shall be in accordance with Section 900. (7-1-93)

05. Mixing Zones. The application of water quality standards to mixing zones shall be in accordance with Section 060. (7-1-93)

06. Natural Background for Toxic Substances. Where natural background concentrations of toxic substances from natural surface or ground water sources exceed any applicable water quality criteria identified in Sections 200 or 250 as determined by the Department, that background level shall become the applicable water quality criteria. Natural background means any physical, chemical, biological, or radiological condition existing in a water body before any human-caused influence on, discharge to, or addition of material to, the water body. (3-20-97)

**071. -- 079. (RESERVED).**

**080. VIOLATION OF WATER QUALITY STANDARDS.**

01. Discharges Which Result in Water Quality Standards Violation. No pollutant shall be discharged from a single source or in combination with pollutants discharged from other sources in concentrations or in a manner that: (7-1-93)

a. Will or can be expected to result in violation of the water quality standards applicable to the receiving water body or downstream waters; or (7-1-93)

b. Will injure designated or existing beneficial uses; or (8-24-94)

c. Is not authorized by the appropriate authorizing agency for those discharges that require authorization. (8-24-94)

02. Short Term Activity Exemption. The Department or the Board can authorize, with whatever conditions deemed necessary, short term activities even though such activities can result in a violation of these rules; (8-24-94)

a. No activity can be authorized by the provisions of Subsection 080.02 unless: (7-1-93)

i. The activity is essential to the protection or promotion of public interest; (7-1-93)

ii. No permanent or long term injury of beneficial uses is likely as a result of the activity. (7-1-93)

b. Activities eligible for authorization by Subsection 080.02 include, but are not limited to: (7-1-93)

i. Wastewater treatment facility maintenance; (7-1-93)

ii. Fish eradication projects; (7-1-93)

iii. Mosquito abatement projects; (7-1-93)

iv. Algae and weed control projects; (7-1-93)

v. Dredge and fill activities; (3-20-97)

vi. Maintenance of existing structures; (3-20-97)

vii. Limited road and trail reconstruction; (3-20-97)

viii. Soil stabilization measures; (3-20-97)

ix. Habitat enhancement structures; and (3-20-97)

x. Activities which result in overall enhancement or maintenance of beneficial uses. (7-1-93)

**081. -- 089. (RESERVED).**

**090. ANALYTICAL PROCEDURES.**

These procedures are available for review at the Idaho Department of Health and Welfare, Division of Environmental Quality, or may be obtained from the U.S. Environmental Protection Agency or U.S. Government Printing Office. (8-24-94)

01. Chemical and Physical Procedures. Sample collection, preservation and analytical procedures to determine compliance with these standards shall conform with the guidelines of the Environmental Protection Agency, 40 CFR, Part 136, or other methods accepted by the scientific community and deemed appropriate by the Department. (8-24-94)

02. Metals Procedures. For the purposes of NPDES permitting, sample collection, preservation and analytical procedures for metals should conform to clean or ultra-clean techniques as described in: (8-24-94)
- a. "Guidance Document on Clean Analytical Techniques and Monitoring," EPA, October 1993, or; (8-24-94)
  - b. "Interim Guidance on Determination and Use of Water-Effect Ratios for Metals," EPA, February 1994, or; (8-24-94)
  - c. Other scientifically valid methods deemed appropriate by the Department. (8-24-94)
03. Biological Procedures. Biological tests to determine compliance with these standards should be based on methods as outlined in: (8-24-94)
- a. "Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms," Fourth Edition, EPA, 1991; or (8-24-94)
  - b. "Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms", Second Edition, EPA 1989; or (8-24-94)
  - c. "Rapid Bioassessment Protocols for Use in Streams and Rivers, EPA, 1989; or (8-24-94)
  - d. Other scientifically valid methods deemed appropriate by the Department. (7-1-93)

**091. -- 099. (RESERVED).**

**100. SURFACE WATER USE CLASSIFICATIONS.**

The designated beneficial uses for which the surface waters of the state are to be protected include: (8-24-94)

01. Water Supply. (7-1-93)
- a. Agricultural: waters which are suitable or intended to be made suitable for the irrigation of crops or as drinking water for livestock; (7-1-93)
  - b. Domestic: waters which are suitable or intended to be made suitable for drinking water supplies; (7-1-93)
  - c. Industrial: waters which are suitable or intended to be made suitable for industrial water supplies. This use applies to all surface waters of the state. (7-1-93)
02. Aquatic Life. (7-1-93)
- a. Cold water biota: waters which are suitable or intended to be made suitable for protection and maintenance of viable communities of aquatic organisms and populations of significant aquatic species which have optimal growing temperatures below eighteen (18) degrees C. (8-24-94)
  - b. Warm water biota: waters which are suitable or intended to be made suitable for protection and maintenance of viable communities of aquatic organisms and populations of significant aquatic species which have optimal growing temperatures above eighteen (18) degrees C. (8-24-94)
  - c. Salmonid spawning: waters which provide or could provide a habitat for active self-propagating populations of salmonid fishes. (7-1-93)
03. Recreation. (7-1-93)
- a. Primary contact recreation: surface waters which are suitable or intended to be made suitable for

prolonged and intimate contact by humans or for recreational activities when the ingestion of small quantities of water is likely to occur. Such waters include, but are not restricted to, those used for swimming, water skiing, or skin diving. (7-1-93)

b. Secondary contact recreation: surface waters which are suitable or intended to be made suitable for recreational uses on or about the water and which are not included in the primary contact category. These waters may be used for fishing, boating, wading, and other activities where ingestion of raw water is not probable. (7-1-93)

04. Wildlife Habitats. Waters which are suitable or intended to be made suitable for wildlife habitats. This use applies to all surface waters of the state. (7-1-93)

05. Aesthetics. This use applies to all surface waters of the state. (7-1-93)

### 101. USE DESIGNATIONS FOR SURFACE WATERS.

01. Undesignated Surface Waters. Surface waters not designated in Sections 110 through 160 shall be designated according to Section 39-3604, Idaho Code, taking into consideration the use of the surface water and such physical, geological, chemical, and biological measures as may affect the surface water. Prior to designation, undesignated waters shall be protected for beneficial uses, which includes all recreational use in and on the water and the protection and propagation of fish, shellfish, and wildlife, wherever attainable. (3-23-98)

a. Because the Department presumes most waters in the state will support cold water biota and primary or secondary contact recreation beneficial uses, the Department will apply cold water biota and primary or secondary contact recreation criteria to undesignated waters unless Subsections 101.01.b. and 101.01c. are followed. (3-23-98)

b. During the review of any new or existing activity on an undesignated water, the Department may examine all relevant data or may require the gathering of relevant data on beneficial uses; pending determination in Section 101.01.c. existing activities will be allowed to continue. (3-23-98)

c. If, after review and public notice of relevant data, it is determined that beneficial uses in addition to or other than cold water biota and primary or secondary contact recreation are appropriate, then the Department will: (3-23-98)

i. Complete the review and compliance determination of the activity in context with the new information on beneficial uses, and (3-23-98)

ii. Initiate rulemaking necessary to designate the undesignated water, including providing all necessary data and information to support the proposed designation. (3-23-98)

02. Man-Made Waterways. Unless designated in Sections 110 through 160, man-made waterways are to be protected for the use for which they were developed. (7-1-93)

03. Private Waters. Unless designated in Sections 110 through 160, lakes, ponds, pools, streams and springs outside public lands but located wholly and entirely upon a person's land are not protected specifically or generally for any beneficial use. (7-1-93)

### 102. -- 109. (RESERVED).

### 110. PANHANDLE BASIN.

The waters found within the Panhandle hydrologic basin are designated for use as follows: (7-1-93)

01. Designated Uses Within Panhandle Basin - Table A. (3-23-98)

# Protected for General Use  
Legend \*Protected for Future Use  
x Use Protected Above Mining Impact Area

DESIGNATED USES - TABLE A

Map Code	Waters	DESIGNATED USES							
		Domestic Water Supply	Agricultural Water Supply	Cold Water Biota	Warm Water Biota	Salmonid Spawning	Primary Contact Recreation	Secondary Contact Recreation	Special Resource Water
a. PB-10K	KOOTENAI RIVER - Ida-Montana border to Moyie River	#	#	#		#	#	#	#
b. PB-110K	MOYIE RIVER - U.S.-Can- ada border to mouth	#	#	#		#	#	#	#
c. PB-20K	KOOTENAI RIVER - Moyie River to Deep Creek	#	#	#		*	#	#	#
d. PB-30K	KOOTENAI RIVER - Deep Creek to U.S.- Canada border	#	#	#		*	#	#	#
e. PB-310K	DEEP CREEK - McArthur to mouth	#	#	#		#	#	#	#
f. PB-10P	CLARK FORK RIVER - Ida-Montana border to Pend Oreille Lake	#	#	#		#	#	#	#
g. PB-110P	LIGHTNING CREEK - source to mouth	#	#	#		#	#	#	#
h. PB-20P	PEND OREILLE LAKE	#	#	#		#	#	#	#
i. PB-210P	PACK RIVER - source to mouth	#	#	#		#	#	#	
j. PB-220P	TRESTLE CREEK - source to mouth			#		#		#	#
k. PB-30P	PEND ORIELLE RIVER - Pend Orielle Lake to Ida- Wash border	#	#	#			#	#	
l. PB-310P	COCOLALLA LAKE AND OUTLET to Pend Orielle River	#	#	#			#	#	#
m. BP-320P	KELSO LAKE AND OUTLET	#	#	#		#	#	#	
n. BP-330P	PRIEST RIVER U.S. - CANADA border to Priest Lake	#	#	#		#	#	#	#
o. PB-340P	PRIEST LAKE	#	#	#		#	#	#	#
p. PB-350P	PRIEST RIVER - Priest lake to mouth	#	#	#		*	#	#	#

Map Code	Waters	DESIGNATED USES							
		Domestic Water Supply	Agricultural Water Supply	Cold Water Biota	Warm Water Biota	Salmonid Spawning	Primary Contact Recreation	Secondary Contact Recreation	Special Resource Water
q. PB-10S	COEUR D'ALENE RIVER - source to S.F. Coeur d'Alene	#	#	#		#	#	#	#
r. PB-11S	GRANITE CREEK - source to mouth			#		#		#	#
s. PB-110S	PRICHARD CREEK - source to mouth	X	#	#		#	#	#	
t. PB-120S	N.F. COEUR D'ALENE - source to mouth	#	#	#		#	#	#	#
u. PB-130S	S.F. COEUR D'ALENE - Headwaters to Daisy Gulch	#	#	#		#	#	#	
v. PB-140S	S.F. COEUR D'ALENE - Daisy Gulch to mouth of S.F. of Coeur d'Alene River		#	*			*	#	
w. PB-121S	CANYON CREEK - source to mouth	X	#	*X		X	X	#	
x. PB-142S	NINE MILE CREEK - source to mouth	X	#	#		#	X	#	
y. PB-143S	BIG CREEK - source to mouth	X	#	#		#	X	#	
z. PB-145S	GOVERNMENT GULCH - source to mouth		#	#		#		#	
aa. PB-146S	PINE CREEK - source to mouth	X	#	#		#	X	#	
bb. PB-147S	LAKE CREEK - source to mouth	X	#	#		#	X	#	
cc. PB-148S	SHIELDS GULCH - source to mouth	X	#	*X		X	X	#	
dd. PB-149S	BEAR CREEK - source to mouth	#	#	#		#	#	#	
ee. PB-20S	COEUR D'ALENE RIVER - S.F. Confluence to mouth (Lake)		#	#		*	#	#	
ff. PB-30S	COEUR D'ALENE LAKE	#	#	#		#	#	#	#
gg. PB-310S	ST. JOE RIVER - source to Calder	#	#	#		#	#	#	#
hh. PB-360S	WOLF LODGE CREEK - source to mouth	#	#	#		#	#		#

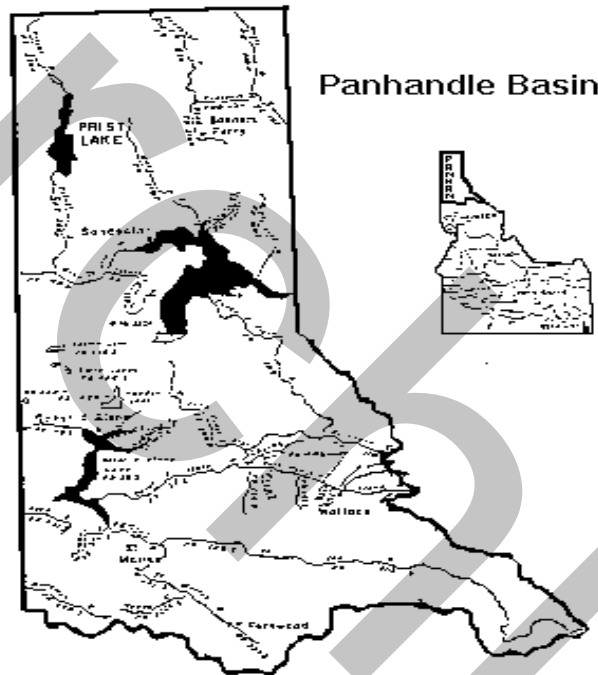


Map Code	Waters	DESIGNATED USES							
		Domestic Water Supply	Agricultural Water Supply	Cold Water Biota	Warm Water Biota	Salmonid Spawning	Primary Contact Recreation	Secondary Contact Recreation	Special Resource Water
ii. PB-320S	ST. JOE RIVER - Calder to St. Maries River	#	#	#		#	#	#	#
jj. PB-321S	ST. MARIES RIVER - source to Fernwood	#	#	#		*	#	#	#
kk. PB-322S	ST. MARIES RIVER - Fernwood to mouth		#	#			#	#	
ll. PB-3221S	SANTA CREEK - source to mouth		#	#		#	#	#	
mm. PB-330S	ST. JOE RIVER - St. Maries to mouth		#	#			#	#	
nn. PB-340S	PLUMMER CREEK		#	#		#		#	
oo. PB-350S	FERNAN LAKE AND OUTLET to Coeur d'Alene Lake	#	#	#		#	#	#	
pp. PB-40S	SPOKANE RIVER - Coeur d'Alene Lake outlet to Ida-Wash border	#	#	#		#	#	#	
qq. PB-410S	SPIRIT LAKE	#	#	#		#	#	#	#
rr. PB-420S	TWIN LAKES	#	#	#		*	#	#	
ss. PB-430S	HAYDEN LAKE	#	#	#		#	#	#	#
tt. PB-440S	HAUSER LAKE	#	#	#		*	#	#	
uu. PB-450S	HANGMAN CREEK - source to Ida-Wash border		#	#				#	
vv. PB-451S	ROCK CREEK - Source to Ida-Wash border		#					#	
ww.	SPOKANE VALLEY - RATHDRUM PRAIRIE AQUIFER	#	#						#
		DESIGNATED USES							

02. Panhandle Hydrologic Basin - Map A.

(7-1-93)

APPENDIX A  
Panhandle Hydrologic Basin - Map



111. -- 119. (RESERVED).

120. CLEARWATER BASIN.

The waters found within the Clearwater hydrologic basin are designated for use as follows:

(7-1-93)

01. Designated Uses Within Clearwater Basin - Table B.

(3-20-97)T

Map Code	Waters	DESIGNATED USES							
		Domestic Water Supply	Agricultural Water Supply	Cold Water Biota	Warm Water Biota	Salmonid Spawning	Primary Contact Recreation	Secondary Contact Recreation	Special Resource Water
a. CB-10	SNAKE RIVER - Salmon River to slackwater	#	#	#			#	#	#
b. CB-120	SELWAY RIVER - source to Lochsa River	#	#	#		#	#	#	#
c. CB-121	LOCHSA RIVER - source to Selway River	#	#	#		#	#	#	#
d. CB-130	MIDDLE FORK OF CLEARWATER RIVER - Lochsa Selway Confluence to S.F. Confluence	#	#	#		#	#	#	#
e. CB-131	AMERICAN RIVER - source to Red River	#	#	#		#	#	#	#
f. CB-1311	BIG ELK CREEK - source to mouth	#	#	#		#	#	#	
g. CB-1312	RED RIVER - source to American River	#	#	#		#	#	#	#
h. CB-132	S.F. CLEARWATER RIVER - confluence American-Red Rivers to mouth		#	#		#	#	#	#
i. CB-1321	THREE MILE CREEK - source to mouth		#	#		#		#	
j. CB-1322	COTTONWOOD CREEK - source to mouth (Idaho Co.)		#	#		#		#	
k. CB-140	CLEARWATER RIVER - S.F. and M.F. Confluence to N.F. Confluence	#	#	#		#	#	#	#
l. CB-141	LAWYERS CREEK - source to mouth		#	#		#	#	#	
m. CB-142	JIM FORD CREEK - source to mouth		#	#		*	#	#	
n. CB-1421	GRASSHOPPER CREEK - source to mouth	#	#	#		*	#	#	
o. CB-143	OROFINO CREEK - source to mouth		#	#		#	#	#	
p. CB-144	N.F. CLEARWATER RIVER - source to backwater of Dworshak	#	#	#		#	#	#	#

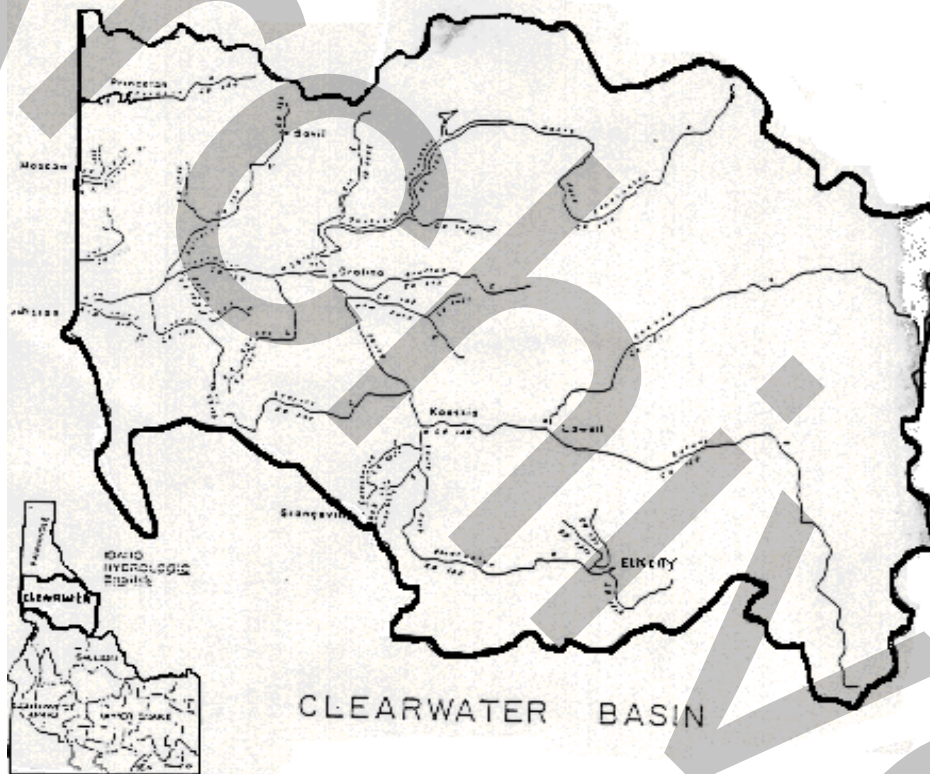
Map Code	Waters	DESIGNATED USES							
		Domestic Water Supply	Agricultural Water Supply	Cold Water Biota	Warm Water Biota	Salmonid Spawning	Primary Contact Recreation	Secondary Contact Recreation	Special Resource Water
q. CB-145	DWORSHAK RESERVOIR	#	#	#		#	#	#	#
r. CB-1451	REEDS CREEK - source to mouth	#	#	#		#	#	#	
s. CB-1452	ELK CREEK - source to Dworshak Reservoir	#	#	#		#	#	#	
t. CB-146	N.F. CLEARWATER RIVER - Dworshak Dam to mouth	#	#	#		#	#	#	#
u. CB-150	CLEARWATER RIVER - North Fork to slackwater	#	#	#		#	#	#	#
v. CB-151	BIG CANYON CREEK - source to mouth		#	#		#	#	#	
w. CB-152	COTTONWOOD CREEK - source to mouth (Nez Perce Co.)		#	#		#	#	#	
x. CB-153	POTLATCH RIVER - source to Bovill	#	#	#		#	#	#	#
y. CB-154	POTLATCH RIVER - Bovill to mouth	#	#	#		#	#	#	
z. CB-1541	LITTLE BEAR CREEK - source to mouth		#	#		#		#	
aa. CB-155	LAPWAI CREEK - source to Winchester Lake	#	#	#		#	#	#	
bb. CB-1551	WINCHESTER LAKE	#	#	#		*	#	#	#
cc. CB-156	LAPWAI CREEK - Winchester Lake to mouth		#	#		*	#	#	
dd. CB-160	PALOUSE RIVER - source to Princeton	#	#	#		#	#	#	
ee. CB-170	PALOUSE RIVER - Princeton to Ida-Wash border		#	#			*	#	
ff. CB-171	S.F. PALOUSE RIVER - source to Ida-Wash border		#	#		#		#	
gg. CB-1711	COW CREEK - source to Ida-Wash border		#	#				#	
hh. CB-1712	PARADISE CREEK - source to Ida-Wash border		#	#				#	
ii. CB-210	3 - source to mouth		#	#				#	#

Map Code	Waters	DESIGNATED USES							
		Domestic Water Supply	Agricultural Water Supply	Cold Water Biota	Warm Water Biota	Salmonid Spawning	Primary Contact Recreation	Secondary Contact Recreation	Special Resource Water
jj. CB-20	LOWER GRANITE DAM POOL - both Clearwater and Snake Arms	#	#	#			#	#	

02. Clearwater Hydrologic Basin - Map B.

(7-1-93)

**APPENDIX B**  
**Clearwater Hydrologic Basin - Map**



121. -- 129. (RESERVED).

**130. SALMON BASIN.**

The waters found within the Salmon hydrologic basin are designated for use as follows:

(7-1-93)

01. Designated Uses Within Salmon Basin - Table C.

(3-23-98)

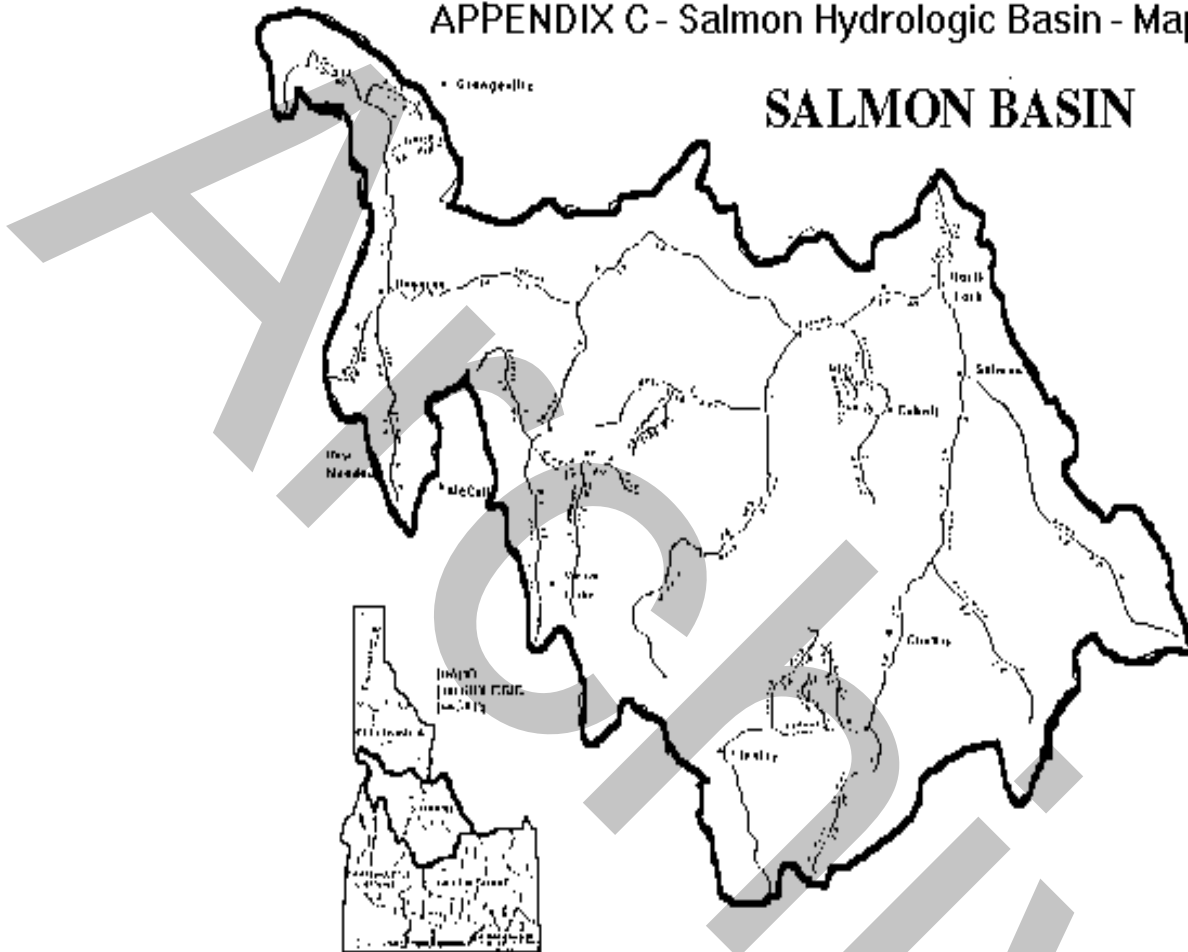
Map Code	Waters	DESIGNATED USES							
		Domestic Water Supply	Agricultural Water Supply	Cold Water Biota	Warm Water Biota	Salmonid Spawning	Primary Contact Recreation	Secondary Contact Recreation	Special Resource Water
a. SB-10	SALMON RIVER - source to East Fork Salmon	#	#	#		#	#	#	#
b. SB-20	SALMON RIVER - E.F. Confluence to Pahsimeroi River	#	#	#		#	#	#	#
c. SB-110	YANKEE FORK - source to mouth	#	#	#		#	#	#	#
d. SB-120	EAST FORK OF SALMON - source to mouth	#	#	#		#	#	#	#
e. SB-130	THOMPSON CREEK - source to mouth		#	#		#		#	
f. SB-140	SQUAW CREEK - source to mouth		#	#		#		#	
g. SB-210	PAHSIMEROI RIVER - source to mouth	#	#	#		#	#	#	#
h. SB-30	SALMON RIVER - Pahsimeroi to Lemhi River	#	#	#		#	#	#	#
i. SB-310	LEMHI RIVER - source to mouth	#	#	#		#	#	#	#
j. SB-40	SALMON RIVER - Lemhi River to Middle Fork Salmon	#	#	#		#	#	#	#
k. SB-410	NORTH FORK SALMON RIVER - source to mouth	#	#	#		#	#	#	#
l. SB-420	PANTHER CREEK - source to Blackbird Creek	#	#	#		#	#	#	#
m. SB-421	BLACKBIRD CREEK - source to, and including, Blackbird Creek Reservoir			#		#		#	
n. SB-4211	BLACKBIRD CREEK - Blackbird Creek Reservoir-Dam to Mouth							#	
o. SB-4212	WEST FORK OF BLACKBIRD CREEK - source to, but not including, the concrete channel			#		#		#	

Map Code	Waters	DESIGNATED USES							
		Domestic Water Supply	Agricultural Water Supply	Cold Water Biota	Warm Water Biota	Salmonid Spawning	Primary Contact Recreation	Secondary Contact Recreation	Special Resource Water
p. SB-4213	WEST FORK OF BLACK-BIRD CREEK - concrete channel to mouth							#	
q. SB-430	PANTHER CREEK - Blackbird Creek to mouth		#	#				#	
r. SB-440	MIDDLE FORK SALMON RIVER - source to mouth	#	#	#		#	#	#	#
s. SB-441	BIG CREEK - source to mouth	#	#	#		#	#	#	#
t. SB-4411	MONUMENTAL CREEK - source to mouth	#	#	#		#	#	#	#
u. SB-50	SALMON RIVER - Middle Fork to South Fork	#	#	#		#	#	#	#
v. SB-510	SOUTH FORK OF SALMON RIVER - source to mouth	#	#	#		#	#	#	#
w. SB-511	EAST FORK OF SOUTH FORK SALMON RIVER - source to mouth	#	#	#		#	#	#	#
x. SB-5111	JOHNSON CREEK - source to mouth	#	#	#		#	#	#	#
y. SB-512	SECESH RIVER - source to mouth	#	#	#		#	#	#	#
z. SB-60	SALMON RIVER - South Fork to Little Salmon River	#	#	#		#	#	#	#
aa. SB-610	LITTLE SALMON RIVER - source to mouth	#	#	#		#	#	#	#
bb. SB-611	RAPID RIVER - source to mouth	#	#	#		#	#	#	#
cc. SB-70	SALMON RIVER - Little Salmon River to Whitebird Creek	#	#	#		#	#	#	#
dd. SB-710	WHITEBIRD CREEK - source to mouth	#	#	#		#	#	#	#
ee. SB-80	SALMON RIVER - Whitebird Creek to mouth	#	#	#		#	#	#	#
ff. SB-810	ROCK CREEK - source to mouth (Johns Creek)		#	#		#	#	#	

02. Salmon Hydrologic Basin - Map C.

(7-1-93)

APPENDIX C - Salmon Hydrologic Basin - Map



131. -- 139. (RESERVED).

140. SOUTHWEST IDAHO BASIN.

The waters found within the Southwest hydrologic basin are designated for use as follows:

(7-1-93)

01. Designated Uses Within Southwest Idaho Basin - Table D.

(3-23-98)

Map Code	Waters	DESIGNATED USES							
		Domestic Water Supply	Agricultural Water Supply	Cold Water Biota	Warm Water Biota	Salmonid Spawning	Primary Contact Recreation	Secondary Contact Recreation	Special Resource Water
a. SWB-10	SNAKE RIVER-King Hill to Marsing	#	#	#		*	#	#	#
b. SWB-110	BRUNEAU RIVER - source to Hot Springs	#	#	#		#	#	#	#



Map Code	Waters	DESIGNATED USES							
		Domestic Water Supply	Agricultural Water Supply	Cold Water Biota	Warm Water Biota	Salmonid Spawning	Primary Contact Recreation	Secondary Contact Recreation	Special Resource Water
c. SWB-111	JARBIDGE RIVER - Nevada border to mouth	#	#	#		#	#	#	#
d. SWB-112	EAST FORK OF BRUNEAU RIVER - source to mouth	#	#	#		#	#	#	#
e. SWB-120	BRUNEAU RIVER - Hot Springs to C.J. Strike Reservoir		#	#		#	#	#	
f. SWB-20	SNAKE RIVER - Marsing to Boise River	#	#	#		*	*		
g. SWB-210	REYNOLDS CREEK - source to mouth		#	#		#	#	#	
h. SWB-220	SUCKER CREEK - source to mouth		#	#		#	#	#	
i. SWB-230	OWYHEE RIVER - Nevada border to Oregon border	#	#	#		#	#	#	#
j. SWB-231	SOUTH FORK OWYHEE RIVER - Nevada border to mouth	#	#	#		#	#	#	#
k. SWB-2311	LITTLE FORK OF SOUTH FORK OF OWYHEE RIVER - Nevada border to mouth	#	#	#		#	#	#	#
l. SWB-232	NORTH FORK OWYHEE RIVER - source to Oregon border	#	#	#		#	#	#	#
m. SWB-2321	MIDDLE FORK OWYHEE RIVER - source to Oregon border	#	#	#		#	#	#	#
n. SWB-233	JORDAN CREEK - source to Oregon border		#	#		#	#	#	#
o. SWB-240	MIDDLE FORK BOISE RIVER - source to mouth	#	#	#		#	#	#	#
p. SWB-241	NORTH FORK OF BOISE RIVER - source to mouth	#	#	#		#	#	#	#
q. SWB-250	BOISE RIVER - North Fork to Lucky Peak Dam	#	#	#		#	#	#	#
r. SWB-251	SOUTH FORK OF BOISE RIVER - source to mouth	#	#	#		#	#	#	#

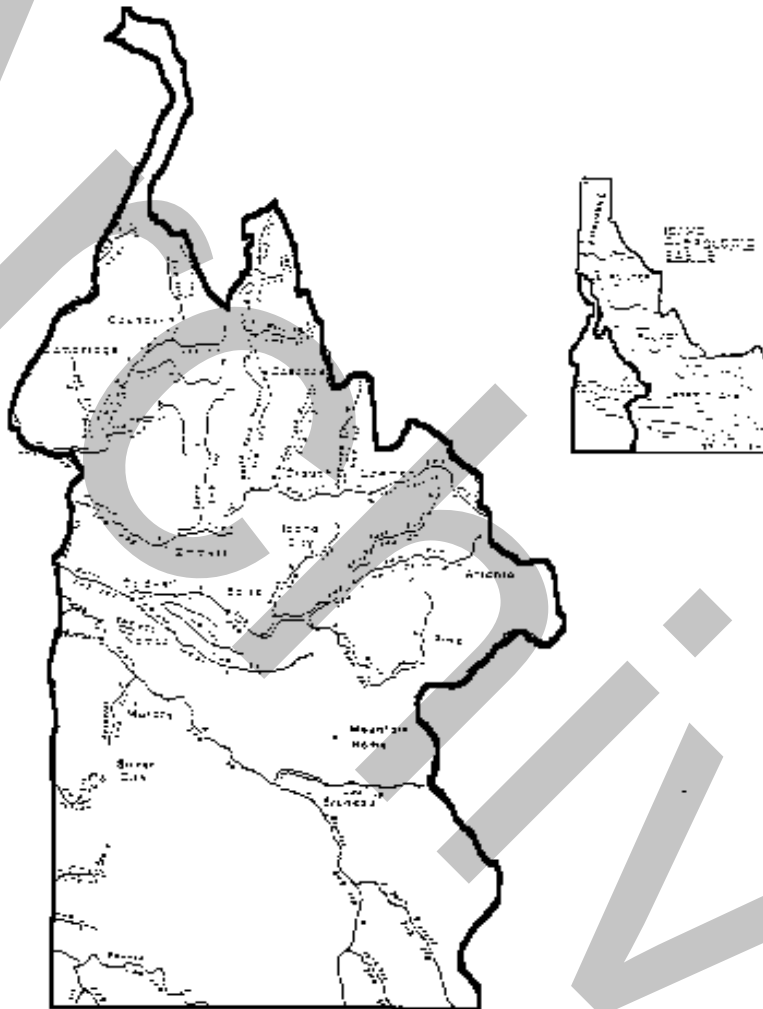
Map Code	Waters	DESIGNATED USES							
		Domestic Water Supply	Agricultural Water Supply	Cold Water Biota	Warm Water Biota	Salmonid Spawning	Primary Contact Recreation	Secondary Contact Recreation	Special Resource Water
s. SWB-252	MORES CREEK - source to mouth	#	#	#		#	#	#	
t. SWB-260	BOISE RIVER - Lucky Peak to River Mile 50 (through Veterans State Park)	#	#	#		#	#	#	#
u. SWB-270	BOISE RIVER - River Mile 50 (Veterans State Park) to Caldwell		#	#	*	#	#		
v. SWB-271	TEN MILE CREEK		#	#		*		#	
w. SWB-271	FIVE MILE CREEK		#	#		*		#	
x. SWB-280	BOISE RIVER - Caldwell to mouth		#	#		*	#	#	
y. SWB-281	INDIAN CREEK - above Sugar Ave., Nampa		#	#		#	#	#	
z. SWB-282	INDIAN CREEK - below Sugar Ave., Nampa		#	#			*	#	
aa. SWB-30	SNAKE RIVER - Payette River to Boise River	#	#	#		*	#	#	
bb. SWB-310	SOUTH FORK PAYETTE RIVER - source to Lowman	#	#	#		#	#	#	#
cc. SWB-320	SOUTH FORK PAYETTE - Lowman to mouth	#	#	#		#	#	#	#
dd. SWB-321	DEADWOOD RIVER - source to mouth	#	#	#		#	#	#	#
ee. SWB-322	MIDDLE FORK PAYETTE RIVER - source to mouth	#	#	#		#	#	#	#
ff. SWB-323	NORTH FORK PAYETTE RIVER - source to McCall	#	#	#		#	#	#	#
gg. SWB-324	NORTH FORK PAYETTE RIVER - McCall to Cascade Dam	#	#	#		#	#	#	#
hh. SWB-3241	LAKE FORK OF N.F. PAYETTE - source to mouth	#	#	#		#	#	#	#
ii. SWB-3242	GOLD FORK OF N.F. PAYETTE - source to mouth	#	#	#		#	#	#	#

Map Code	Waters	DESIGNATED USES							
		Domestic Water Supply	Agricultural Water Supply	Cold Water Biota	Warm Water Biota	Salmonid Spawning	Primary Contact Recreation	Secondary Contact Recreation	Special Resource Water
jj. SWB-325	N.F. PAYETTE RIVER - Cascade Dam to mouth (Banks)	#	#	#		#	#	#	#
kk. SWB-330	PAYETTE RIVER - Banks to Black Canyon Dam	#	#	#		#	#	#	#
ll. SWB-331	SQUAW CREEK - source to mouth		#	#		#	#	#	
mm. SWB-340	PAYETTE RIVER - Black Canyon Dam to mouth	#	#	#		#	#	#	
nn. SWB-40	SNAKE RIVER - Payette River to Brownlee Reservoir	#	#	#		*	#	#	
oo. SWB-410	WEISER RIVER - source to Midvale	#	#	#		*	#	#	#
pp. SWB-411	WEST FORK WEISER RIVER - source to mouth	#	#	#		#	#	#	#
qq. SWB-412	MIDDLE FORK WEISER RIVER - source to mouth	#	#	#		#	#	#	#
rr. SWB-413	LITTLE WEISER RIVER - source to mouth	#	#	#		#	#	#	
ss. SWB-420	WEISER RIVER - Midvale to mouth	#	#	#		*	#	#	
tt. SWB-421	CRANE CREEK - source to mouth		#	#		*	#	#	
uu. SWB-422	MANN CREEK - source to mouth		#	#		#	#	#	
vv. SWB-50	SNAKE RIVER - Brownlee, Oxbow, and Hells Canyon Reservoir	#	#	#		#	#	#	#
ww. SWB-510	INDIAN CREEK - (Adams Co.) source to mouth	#	#	#		#	#	#	#
xx. SWB-60	SNAKE RIVER - Hells Canyon Dam to Salmon River Confluence	#	#	#		#	#	#	#
yy. SWB-900	LAKE LOWELL RESERVOIR		#		#		#	#	#

02. Southwest Idaho Hydrologic Basin - Map D.

(7-1-93)

**APPENDIX D**  
**Southwest Idaho Hydrologic Basin - Map**  
**SOUTHWEST IDAHO BASIN**



03. Boise River - SWB-260. That portion of the Boise River between Lucky Peak Dam and Diversion Dam is not protected for the use of salmonid spawning. (7-1-93)

141. -- 149. (RESERVED).

**150. UPPER SNAKE BASIN.**

The waters found within the Upper Snake hydrologic basin are designated for use as follows:

(7-1-93)

01. Designated Uses Within Upper Snake Hydrologic Basin - Table E.

(3-23-98)

Map Code	Waters	DESIGNATED USES							
		Domestic Water Supply	Agricultural Water Supply	Cold Water Biota	Warm Water Biota	Salmonid Spawning	Primary Contact Recreation	Secondary Contact Recreation	Special Resource Water
a. USB-10	SNAKE RIVER - Ida-Wyoming border to Heise	#	#	#		#	#	#	#
b. USB-20	SNAKE RIVER - Heise to Roberts	#	#	#		#	#	#	#
c. USB-210	HENRY'S FORK SNAKE RIVER - source to Island Park	#	#	#		#	#	#	#
d. USB-220	HENRY'S FORK - Island Park Reservoir	#	#	#		#	#	#	#
e. USB-230	HENRY' FORK SNAKE RIVER - Island Park Dam to mouth	#	#	#		#	#	#	#
f. USB-231	BUFFALO RIVER - source to mouth	#	#	#		#	#	#	#
g. USB-232	WARM RIVER - source to mouth	#	#	#		#	#	#	#
h. USB-233	FALLS RIVER - source to mouth	#	#	#		#	#	#	#
i. USB-234	TETON RIVER - source to split of North and South Forks	#	#	#		#	#	#	#
j. USB-235	NORTH FORK TETON - Fork to mouth		#	#		#	*	#	
k. USB-236	SOUTH FORK TETON - Fork to mouth		#	#		#	*	#	
l. USB-30	SNAKE RIVER - Roberts to American Falls Reservoir	#	#	#		#	#	#	
m. USB-310	WILLOW CREEK - source to Ririe Dam	#	#	#		#	#	#	#
n. USB-320	WILLOW CREEK - Ririe Dam to mouth		#	#		#	*	#	
o. USB-330	BLACKFOOT RIVER - source to Blackfoot Reservoir	#	#	#		#	#	#	#
p. USB-340	BLACKFOOT RESERVOIR		#	#		*	#	#	

Map Code	Waters	DESIGNATED USES							
		Domestic Water Supply	Agricultural Water Supply	Cold Water Biota	Warm Water Biota	Salmonid Spawning	Primary Contact Recreation	Secondary Contact Recreation	Special Resource Water
q. USB-350	BLACKFOOT RIVER - Blackfoot Reservoir Dam to Equalizing Dam		#	#		#	#	#	
r. USB-360	BLACKFOOT RIVER - Equalizing Dam to mouth		#	*		*	*	#	
s. USB-40	SNAKE RIVER - American Falls Reservoir	#	#	#			#	#	
t. USB-410	PORTNEUF RIVER - source to Marsh Creek	#	#	#		#	#	#	#
u. USB-411	MARSH CREEK - source to mouth		#	#		*	*	#	
v. USB-420	PORTNEUF RIVER - Marsh Creek to mouth		#	#		#	*	#	
w. USB-430	BANNOCK CREEK - source to mouth		#	#		*		#	
x. USB-50	SNAKE RIVER - American Falls Dam to Minidoka Dam	#	#	#			#	#	
y. USB-510	ROCK CREEK (Power Co.) - source to mouth		#	#		#	#	#	
z. USB-520	RAFT RIVER - source to Malta		#	#		#	#	#	
aa. USB-60A	SNAKE RIVER - Minidoka Dam to Heyburn Bridge		#	#		#	#	#	
bb. USB-60B	SNAKE RIVER - Heyburn/Burley Bridge to Milner Dam		#		#		#	#	
cc. USB-610	GOOSE CREEK - source to Goose Creek Reservoir		#	#		#	#	#	
dd. USB-70	SNAKE RIVER - Milner Dam to Buhl		#	#		#	#	#	
ee. USB-710	DRY CREEK - source to mouth		#	#		#		#	
ff. USB-720	ROCK CREEK - source to Rock Creek (City) (Twin Falls County)	#	#	#		#	#	#	#
gg. USB-730	ROCK CREEK - Rock Creek (City) to mouth		#	#		#	*	#	

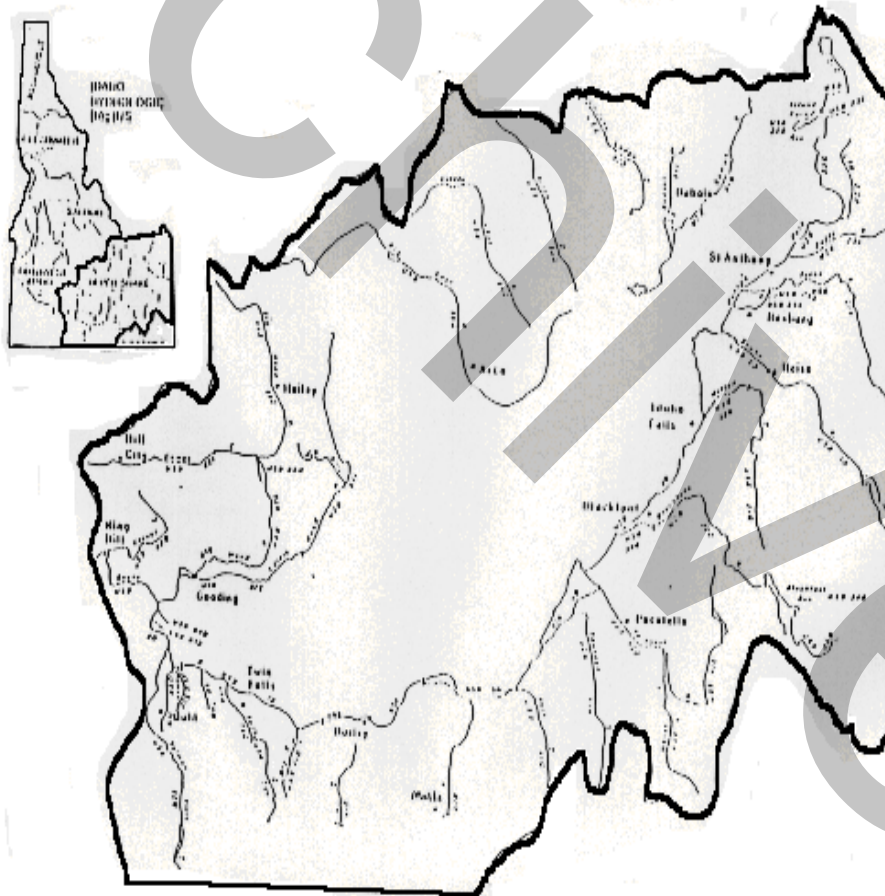
Map Code	Waters	DESIGNATED USES							
		Domestic Water Supply	Agricultural Water Supply	Cold Water Biota	Warm Water Biota	Salmonid Spawning	Primary Contact Recreation	Secondary Contact Recreation	Special Resource Water
hh. USB-740	CEDAR DRAW - source to mouth		#	#		#		#	
ii. USB-80	SNAKE RIVER - Buhl to King Hill		#	#		#	#	#	
jj. USB-800	MUD CREEK - Deep Creek Road to mouth		#	#		#		#	
kk. USB-810	DEEP CREEK - source to mouth (Twin Falls County)		#	#		#		#	
ll. USB-820	SALMON FALLS CREEK - Ida-Nevada border to mouth		#	#		#	#	#	
mm. USB-830	RILEY CREEK - source to mouth	#	#	#		#	#	#	#
nn. USB-840	BILLINGSLEY CREEK - source to mouth	#	#	#		#	#	#	#
oo. USB-850	BIG WOOD RIVER - source to Magic Reservoir	#	#	#		#	#	#	#
pp. USB-860	BIG WOOD RIVER - Magic Reservoir		#	#			#	#	
qq. USB-861	CAMAS CREEK - source to mouth (Camas Co.)		#	#		#	#	#	
rr. USB-870	BIG WOOD RIVER - Magic Dam to mouth (Malad River - source to mouth)		#	#		#	#	#	
ss. USB-871	LITTLE WOOD RIVER - source to Richfield		#	#		#	#	#	
tt. USB-8711	SILVER CREEK - source to mouth	#	#	#		#	#	#	#
uu. USB-872	LITTLE WOOD RIVER - Richfield to mouth		#	#		*	#	#	
vv. USB-880	CLOVER CREEK - source to mouth		#	#		#	#	#	
ww. USB-910	CAMAS CREEK (Clark County) - source to Mud Lake		#	#		#	#	#	
xx. USB-911	BEAVER CREEK - source to mouth	#	#	#		#	#	#	

Map Code	Waters	DESIGNATED USES							
		Domestic Water Supply	Agricultural Water Supply	Cold Water Biota	Warm Water Biota	Salmonid Spawning	Primary Contact Recreation	Secondary Contact Recreation	Special Resource Water
yy. USB-920	MEDICINE LODGE CREEK - source to playas	#	#	#		#	#	#	#
zz. USB-930	BIRCH CREEK - source to playas	#	#	#		#	#	#	#
ab. USB-940	LITTLE LOST RIVER - source to playas		#	#		#	#	#	
ac. ISB-950	BIG LOST RIVER - source to playas	#	#	#		#	#	#	#

02. Upper Snake Hydrologic Basin - Map E

(7-1-93)

### APPENDIX E - Upper Snake Hydrologic Basin - Map





151. -- 159. (RESERVED).

**160. BEAR RIVER BASIN.**

The waters found within the Bear River hydrologic basin are designated for use as follows: (7-1-93)

01. Designated Uses Within Bear River Hydrologic Basin - Table F. (3-23-98)

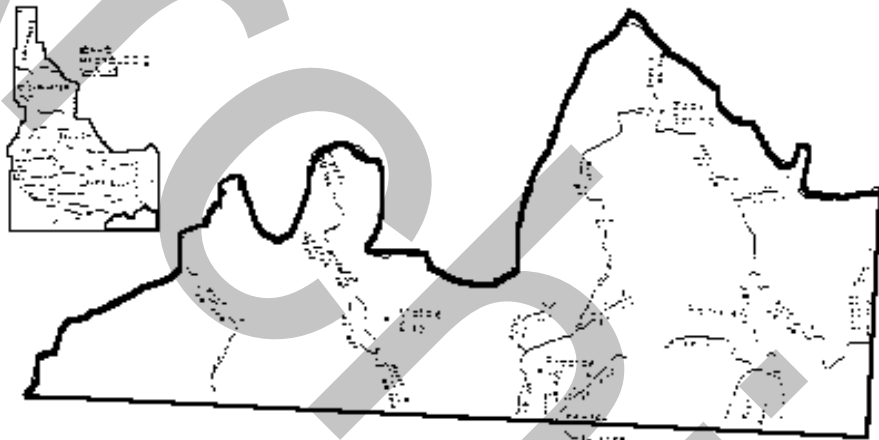
Map Code	Waters	DESIGNATED USES							
		Domestic Water Supply	Agricultural Water Supply	Cold Water Biota	Warm Water Biota	Salmonid Spawning	Primary Contact Recreation	Secondary Contact Recreation	Special Resource Water
a. BB-10	BEAR RIVER - Idaho-Wyoming border to Bear Lake Confluence		#	#		#	#	#	
b. BB-110	THOMAS FORK - Idaho-Wyoming border to mouth		#	#		#	#	#	
c. BB-120	BEAR LAKE and Outlets to Bear River	#	#	#		#	#	#	#
d. BB-121	BLOOMINGTON LAKE AND CREEK - source to Dingle Swamp	#	#	#		#	#	#	#
e. BB-20	BEAR RIVER - Bear Lake Confluence to Soda Springs		#	#		#	#	#	
f. BB-210	GEORGETOWN CREEK	#	#	#		#	#	#	#
g. BB-30	BEAR RIVER - Soda Springs to U.P.& L. Tailrace, Oneida		#	#		#	#	#	
h. BB-310	SODA CREEK - source to mouth		#					#	
i. BB-40	BEAR RIVER - U. P. & L. Tailrace, Oneida to Ida-Utah boarder		#	#		#	#	#	
j. BB-410	MINK CREEK - source to mouth		#	#		#	#	#	
k. BB-420	BATTLE CREEK - source to mouth		#	#		*	*	#	
l. BB-430	WORM CREEK - source to Ida-Utah border		#	#		*	*	#	
m. BB-440	CUB RIVER - source to Mapleton	#	#	#		#	#	#	#
n. BB-450A	CUB RIVER - Mapleton to Franklin (US Hwy 91 Bridge)		#	#		*	#	#	

Map Code	Waters	DESIGNATED USES							
		Domestic Water Supply	Agricultural Water Supply	Cold Water Biota	Warm Water Biota	Salmonid Spawning	Primary Contact Recreation	Secondary Contact Recreation	Special Resource Water
o. BB-450B	CUB RIVER - Franklin (US Hwy 91 Bridge) to Ida-Utah border		#	#				#	
p. BB-460	MALAD RIVER - source to Little Malad River	#	#	#		*	#	#	
q. BB-461	LITTLE MALAD RIVER - source to mouth		#	#			#	#	
r. BB-462	WRIGHT CREEK - source to Daniels Reservoir		#	#		#	#	#	
s. BB-470	MALAD RIVER - Little Malad River to Ida-Utah border		#	#		*	*	#	
t. BB-480	DEEP CREEK - source to Ida-Utah border	#	#	#		*	#	#	

02. Bear River Hydrologic Basin - Map F

(7-1-93)

**APPENDIX F - Bear River Hydrologic Basin - Map**



161. -- 199. (RESERVED).

**200. GENERAL SURFACE WATER QUALITY CRITERIA.**

The following general water quality criteria apply to all surface waters of the state, in addition to the water quality criteria set forth for specifically classified waters. (7-1-93)

01. Hazardous Materials. Surface waters of the state shall be free from hazardous materials in concentrations found to be of public health significance or to impair designated beneficial uses. These materials do not include suspended sediment produced as a result of nonpoint source activities. (8-24-94)

02. Toxic Substances. Surface waters of the state shall be free from toxic substances in concentrations that impair designated beneficial uses. These substances do not include suspended sediment produced as a result of nonpoint source activities. (8-24-94)

03. Deleterious Materials. Surface waters of the state shall be free from deleterious materials in concentrations that impair designated beneficial uses. These materials do not include suspended sediment produced as a result of nonpoint source activities. (8-24-94)

04. Radioactive Materials. (7-1-93)

a. Radioactive materials or radioactivity shall not exceed the values listed in the Code of Federal Regulations, Title 10, Chapter 1, Part 20, Appendix B, Table 2, Effluent Concentrations, Column 2. (8-24-94)

b. Radioactive materials or radioactivity shall not exceed concentrations required to meet the standards set forth in Title 10, Chapter 1, Part 20, of the Code of Federal Regulations for maximum exposure of critical human organs in the case of foodstuffs harvested from these waters for human consumption. (7-1-93)

05. Floating, Suspended or Submerged Matter. Surface waters of the state shall be free from floating, suspended, or submerged matter of any kind in concentrations causing nuisance or objectionable conditions or that may impair designated beneficial uses. This matter does not include suspended sediment produced as a result of nonpoint source activities. (8-24-94)

06. Excess Nutrients. Surface waters of the state shall be free from excess nutrients that can cause visible slime growths or other nuisance aquatic growths impairing designated beneficial uses. (8-24-94)

07. Oxygen-Demanding Materials. Surface waters of the state shall be free from oxygen-demanding materials in concentrations that would result in an an aerobic water condition. (7-1-93)

08. Sediment. Sediment shall not exceed quantities specified in Section 250, or, in the absence of specific sediment criteria, quantities which impair designated beneficial uses. Determinations of impairment shall be based on water quality monitoring and surveillance and the information utilized as described in Subsection 350.02.b. (8-24-94)

**201. -- 249. (RESERVED).**

**250. SURFACE WATER QUALITY CRITERIA FOR USE CLASSIFICATIONS.**

The following water quality criteria apply to surface waters of the state according to the designated beneficial uses on a water body. (8-24-94)

01. Recreation. (7-1-93)

a. Primary contact recreation: between May 1 and September 30 of each calendar year, waters designated for primary contact recreation are not to contain fecal coliform bacteria significant to the public health in concentrations exceeding: (7-1-93)

i. 500/100 ml. at any time; and (7-1-93)

and ii. 200/100 ml. in more than ten percent (10%) of the total samples taken over a thirty (30) day period; (7-1-93)

day period. iii. A geometric mean of 50/100 ml. based on a minimum of five (5) samples taken over a thirty (30) day period. (7-1-93)

b. Secondary contact recreation: waters designated for secondary contact recreation are not to contain fecal coliform bacteria significant to the public health in concentrations exceeding: (7-1-93)

i. 800/100 ml. at any time; and (7-1-93)

and ii. 400/100 ml. in more than ten percent (10%) of the total samples taken over a thirty (30) day period; (7-1-93)

day period. iii. A geometric mean of 200/100 ml. based on a minimum of five (5) samples taken over a thirty (30) day period. (7-1-93)

c. Primary and Secondary Contact Recreation: All toxic substance criteria set forth in 40 CFR 131.36(b)(1), Column D2, revised as of December 22, 1992, effective February 5, 1993 (57 FR 60848, December 22, 1992). 40 CFR 131.36(b)(1) is hereby incorporated by reference in the manner provided in Subsection 250.07;

provided, however the standard for arsenic shall be fifty (50) ug/l for Column D2. (12-1-97)T

- 02. Aquatic Life. (7-1-93)
  - a. General Criteria. The following criteria apply to all aquatic life use classifications: (8-24-94)
    - i. Hydrogen Ion Concentration (pH) values within the range of six and one-half (6.5) to nine and one-half (9.5); (7-1-93)
      - ii. The total concentration of dissolved gas not exceeding one hundred ten percent (110%) of saturation at atmospheric pressure at the point of sample collection; (7-1-93)
      - iii. Total chlorine residual. (8-24-94)
        - (1) One (1) hour average concentration not to exceed nineteen (19) ug/l (8-24-94)
        - (2) Four (4) day average concentration not to exceed eleven (11) ug/l. (8-24-94)
      - iv. All toxic substance criteria set forth in 40 CFR 131.36(b)(1), Columns B1, B2 and D2, revised as of December 22, 1992, effective February 5, 1993 (57 FR 60848, December 22, 1992) provided, however, the standard for arsenic shall be fifty (50) ug/l for Column D2. 40 CFR 131.36(b)(1) is hereby incorporated by reference in the manner provided in Subsection 250.07. (12-1-97)T
    - b. Warm water biota: waters designated for warm water biota are to exhibit the following characteristics: (7-1-93)
      - i. Dissolved oxygen concentrations exceeding five (5) mg/l at all times. In lakes and reservoirs this standard does not apply to: (7-1-93)
        - (1) The bottom twenty percent (20%) of the water depth in natural lakes and reservoirs where depths are thirty-five (35) meters or less. (7-1-93)
        - (2) The bottom seven (7) meters of water depth in natural lakes and reservoirs where depths are greater than thirty-five (35) meters. (7-1-93)
        - (3) Those waters of the hypolimnion in stratified lakes and reservoirs. (7-1-93)
      - ii. Water temperatures of thirty-three (33) degrees C or less with a maximum daily average not greater than twenty-nine (29) degrees C. (8-24-94)
      - iii. Ammonia. (8-24-94)
        - (1) One (1) hour average concentration of un-ionized ammonia (as N) is not to exceed (0.43/A/B/2) mg/l, where:  
A = 0.7 if the water temperature (T) is greater than or equal to 25 degrees C (if T > 30 degrees C site-specific criteria should be defined), or  
A =  $10^{\text{power}(0.03(20-T))}$  if T is less than 25 degrees C, and  
B = 1 if the pH is greater than or equal to 8 (if pH > 9.0 site-specific criteria should be defined), or  
B =  $(1 + 10^{\text{power}(7.4-pH)})/1.25$  if pH is less than 8 (if pH < 6.5 site-specific criteria should be defined). (8-24-94)
- (i) The following Table gives one-hour average criteria for un-ionized ammonia (mg/l as N) at various water temperatures and pH values. The corresponding total ammonia concentration (mg/l as N) is given below each un-ionized ammonia criterion. (8-24-94)

**TABLE I--WARM WATER BIOTA: ONE-HOUR AVERAGE CRITERIA FOR UN-IONIZED (TOP) AND TOTAL (BOTTOM) AMMONIA (mg/1 as N) AT SELECTED WATER TEMPERATURES AND PH VALUES.**

WATER TEMP. (DEGREES C)	pH						
	6.50	6.60	6.80	7.00	7.20	7.40	7.60
0.00	0.01	0.01	0.01	0.02	0.03	0.03	0.04
	28.92	28.07	26.01	23.27	19.94	16.31	12.62
2.00	0.01	0.01	0.02	0.02	0.03	0.04	0.05
	28.05	27.26	25.26	22.59	19.35	15.82	12.25
4.00	0.01	0.01	0.02	0.03	0.03	0.04	0.05
	27.34	26.52	24.57	22.03	18.92	15.40	11.94
6.00	0.0	0.01	0.02	0.03	0.04	0.05	0.06
	26.63	25.93	23.99	21.55	18.47	15.07	11.67
8.00	0.01	0.02	0.02	0.03	0.05	0.06	0.07
	26.08	25.35	23.55	21.01	18.01	14.74	11.44
10.00	0.02	0.02	0.03	0.04	0.05	0.07	0.08
	25.57	24.87	23.11	20.62	17.72	14.45	11.22
12.00	0.02	0.02	0.03	0.04	0.06	0.08	0.09
	25.13	24.43	22.66	20.29	17.39	14.21	11.04
14.00	0.02	0.02	0.04	0.05	0.07	0.09	0.11
	24.76	24.05	22.28	19.98	17.13	14.03	10.89
16.00	0.02	0.03	0.04	0.06	0.08	0.10	0.12
	24.43	23.84	22.00	19.75	16.92	13.85	10.78
18.00	0.03	0.03	0.05	0.07	0.09	0.12	0.14
	24.23	23.55	21.76	19.49	16.77	13.70	10.63
20.00	0.03	0.04	0.05	0.08	0.10	0.13	0.16
	24.04	23.27	21.58	19.32	16.61	13.60	10.56
22.00	0.03	0.04	0.06	0.09	0.12	0.15	0.19
	23.79	23.07	21.44	19.23	16.51	13.53	0.51
24.00	0.04	0.05	0.07	0.10	0.14	0.18	0.22
	23.72	22.97	21.36	19.14	16.45	3.52	0.49
26.00	0.04	0.05	0.08	0.11	0.15	0.19	0.24
	22.24	21.70	20.07	18.01	15.50	2.71	9.93
28.00	0.04	0.05	0.08	0.11	0.15	0.19	0.24

WATER TEMP. (DEGREES C)	pH						
	6.50	6.60	6.80	7.00	7.20	7.40	7.60
	19.43	18.83	17.48	15.68	13.50	1.10	8.65
30.00	0.04	0.05	0.08	0.11	0.15	0.19	0.24
	16.90	16.41	15.23	13.68	11.79	9.70	7.57

WATER TEMP. DEGREES C	pH						
	7.80	8.00	8.20	8.40	8.60	8.80	9.00
0.00	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	9.30	6.59	4.19	2.66	1.69	1.09	0.71
2.00	0.06	0.06	0.06	0.06	0.061	0.06	0.06
	9.04	6.41	4.05	2.58	1.65	1.07	0.70
4.00	0.06	0.07	0.07	0.07	0.07	0.07	0.07
	8.82	6.25	3.98	2.53	1.62	1.05	0.69
6.00	0.07	0.08	0.08	0.08	0.08	0.08	0.08
	8.82	6.10	3.89	2.48	1.60	1.04	0.69
8.00	0.08	0.09	0.09	0.09	0.09	0.09	0.09
	8.44	5.98	3.82	2.44	1.57	1.03	0.69
10.00	0.10	0.11	0.11	0.11	0.11	0.11	0.11
	8.31	5.89	3.75	2.41	1.56	1.03	0.69
12.00	0.11	0.12	0.12	0.12	0.12	0.12	0.12
	8.13	5.81	3.70	2.38	1.55	1.02	0.69
14.00	0.13	0.14	0.14	0.14	0.14	0.14	0.14
	8.04	5.73	3.67	2.37	1.55	1.03	0.70
16.00	0.15	0.16	0.16	0.16	0.16	0.16	0.16
	7.97	5.68	3.65	2.36	1.55	1.04	0.72
18.00	0.17	0.19	0.19	0.19	0.19	0.19	0.19
	7.90	5.66	3.64	2.36	1.56	1.05	0.73
20.00	0.19	0.22	0.22	0.22	0.22	0.22	0.22
	7.88	5.63	3.63	2.37	1.57	1.08	0.76
22.00	0.22	0.25	0.25	0.25	0.25	0.25	0.25
	7.83	5.62	3.64	2.40	1.59	1.10	0.78
24.00	0.25	0.28	0.28	0.28	0.28	0.28	0.28

WATER TEMP. DEGREES C	pH						
	7.80	8.00	8.20	8.40	8.60	8.80	9.00
	7.82	5.63	3.66	2.42	1.63	1.13	0.82
26.00	0.27	0.31	0.31	0.31	0.31	0.31	0.31
	7.40	5.34	3.48	2.31	1.57	1.10	0.81
28.00	0.27	0.31	0.31	0.31	0.31	0.31	0.31
	6.48	4.68	3.07	2.05	1.41	1.00	0.75
30.00	0.27	0.31	0.31	0.31	0.31	0.31	0.31
	5.67	4.12	2.72	1.83	1.26	0.91	0.69

(2) Four-day average concentration of un-ionized ammonia (as N) is not to exceed (0.66/A/B/C) mg/l, where:

A = 1.0 if the water temperature (T) is greater than or equal to 20 degrees C (if T > 30 degrees C site-specific criteria should be defined), or

A =  $10^{\text{power}(0.03(20-T))}$  if T is less than 20 degrees C, and

B = 1 if the pH is greater than or equal to 8 (if pH > 9.0 site-specific criteria should be defined), or

B =  $(1 + 10^{\text{power}(7.4-\text{pH})})/1.25$  if pH is less than 8 (if pH < 6.5 site-specific criteria should be defined), and

C = 13.5 if pH is greater than or equal to 7.7, or

C =  $20(10^{\text{power}(7.7-\text{pH})}/(1 + 10^{\text{power}(7.4-\text{pH})}))$  if the pH is less than 7.7. (4-13-95)

(a) The following Table gives four-day average criteria for un-ionized ammonia (mg/l as N) at various water temperatures and pH values. The corresponding total ammonia concentration (mg/l as N) is given below each un-ionized ammonia criterion. (8-24-94)

**TABLE II--WARM WATER BIOTA: FOUR-DAY AVERAGE CRITERIA FOR UN-IONIZED (TOP) AND TOTAL (BOTTOM) AMMONIA (mg/l as N) AT SELECTED WATER TEMPERATURES AND PH VALUES.**

WATER TEMP. DEGREES C	pH			
	6.5	6.6	6.8	7.0
0	0.0007	0.0008	0.0013	0.0021
	2.5	2.5	2.5	2.5
2	0.0008	0.0009	0.0015	0.0024
	2.5	2.5	2.5	2.5
4	0.0009	0.0011	0.0017	0.0027
	2.4	2.4	2.4	2.4
6	0.0010	0.0012	0.0020	0.0031



WATER TEMP. DEGREES C	pH			
	6.5	6.6	6.8	7.0
	2.3	2.3	2.3	2.3
8	0.0011	0.0014	0.0023	0.0036
	2.3	2.3	2.3	2.3
10	0.0013	0.0016	0.0026	0.0041
	2.3	2.3	2.3	2.3
12	0.0015	0.0019	0.0030	0.0047
	2.2	2.2	2.2	2.2
14	0.0017	0.0022	0.0034	0.0054
	2.2	2.2	2.2	2.2
16	0.0020	0.0025	0.0039	0.0062
	2.1	2.1	2.2	2.2
18	0.0023	0.0029	0.0045	0.0072
	2.1	2.1	2.1	2.1
20	0.0026	0.0033	0.0052	0.0082
	2.1	2.1	2.1	2.1
22	0.0026	0.0033	0.0052	0.0082
	1.8	1.8	1.8	1.8
24	0.0026	0.0033	0.0052	0.0082
	1.6	1.6	1.6	1.6
26	0.0026	0.0033	0.0052	0.0082
	1.37	1.37	1.37	1.38
28	0.0026	0.0033	0.0052	0.0082
	1.19	1.19	1.19	1.20
30	0.0026	0.0033	0.0052	0.0082
	1.04	1.04	1.04	1.04

WATER TEMP. DEGREES C	pH				
	7.2	7.4	7.6	7.8	8.0
0	0.0033	0.0052	0.0082	0.0110	0.0123
	2.5	2.5	2.6	2.2	1.52
2	0.0038	0.0060	0.0094	0.0126	0.0141

WATER TEMP. DEGREES C	pH				
	7.2	7.4	7.6	7.8	8.0
	2.5	2.5	2.5	2.1	1.48
4	0.0043	0.0068	0.0108	0.0145	0.0162
	2.4	2.4	2.4	2.0	1.44
6	0.0050	0.0079	0.0125	0.0166	0.0186
	2.4	2.4	2.4	2.0	1.41
8	0.0057	0.0090	0.0143	0.0191	0.0213
	2.3	2.3	2.3	2.0	1.38
10	0.0065	0.0104	0.0164	0.0219	0.0245
	2.3	2.3	2.3	1.9	1.36
12	0.0075	0.0119	0.0189	0.0252	0.0281
	2.2	2.2	2.2	1.9	1.34
14	0.0086	0.0137	0.0216	0.0289	0.0323
	2.2	2.2	2.2	1.9	1.32
16	0.0099	0.0157	0.0249	0.0332	0.0371
	2.2	2.2	2.2	1.8	1.31
18	0.0114	0.0180	0.0285	0.0381	0.0426
	2.1	2.1	2.2	1.8	1.30
20	0.0130	0.0207	0.0328	0.0437	0.0489
	2.1	2.1	2.1	1.8	1.30
22	0.0130	0.0207	0.0328	0.0437	0.0489
	1.8	1.8	1.9	1.6	1.13
24	0.0130	0.0207	0.0328	0.0437	0.0489
	1.6	1.6	1.6	1.4	0.98
26	0.0130	0.0207	0.0328	0.0437	0.0489
	1.38	1.39	1.40	1.19	0.86
28	0.0130	0.0207	0.0328	0.0437	0.0489

WATER TEMP. DEGREES C	pH				
	7.2	7.4	7.6	7.8	8.0
	1.20	1.21	1.22	1.04	0.76
30	0.0130	0.0207	0.0328	0.0437	0.0489
	1.05	1.06	1.07	0.92	0.66

WATER TEMP. DEGREES C	pH				
	8.2	8.4	8.6	8.8	9.0
0	0.0123	0.0123	0.0123	0.0123	0.0123
	0.97	0.61	0.39	0.25	0.163
2	0.0141	0.0141	0.0141	0.0141	0.0141
	0.94	0.60	0.38	0.25	0.161
4	0.0162	0.0162	0.0162	0.0162	0.0162
	0.92	0.58	0.37	0.24	0.159
6	0.0186	0.0186	0.0186	0.0186	0.0186
	0.90	0.57	0.37	0.24	0.158
8	0.0213	0.0213	0.0213	0.0213	0.0213
	0.88	0.56	0.36	0.24	0.158
10	0.0245	0.0245	0.0245	0.0245	0.0245
	0.87	0.56	0.36	0.24	0.158
12	0.0281	0.0281	0.0281	0.0281	0.0281
	0.86	0.55	0.36	0.24	0.159
14	0.0323	0.0323	0.0323	0.0323	0.0323
	0.85	0.55	0.36	0.24	0.162
16	0.0371	0.0371	0.0371	0.0371	0.0371
	0.84	0.54	0.36	0.24	0.165
18	0.0426	0.0426	0.0426	0.0426	0.0426
	0.84	0.54	0.36	0.24	0.169
20	0.0489	0.0489	0.0489	0.0489	0.0489
	0.84	0.55	0.36	0.25	0.174
22	0.0489	0.0489	0.0489	0.0489	0.0489
	0.73	0.48	0.32	0.22	0.157
24	0.0489	0.0489	0.0489	0.0489	0.0489

WATER TEMP. DEGREES C	pH				
	8.2	8.4	8.6	8.8	9.0
	0.64	0.42	0.28	0.20	0.142
26	0.0489	0.0489	0.0489	0.0489	0.0489
	0.56	0.37	0.25	0.18	0.130
28	0.0489	0.0489	0.0489	0.0489	0.0489
	0.49	0.33	0.23	0.16	0.120
30	0.0489	0.0489	0.0489	0.0489	0.0489
	0.44	0.29	0.20	0.146	0.110

- c. Cold water biota: waters designated for cold water biota are to exhibit the following characteristics: (7-1-93)
- i. Dissolved Oxygen Concentrations exceeding six (6) mg/l at all times. In lakes and reservoirs this standard does not apply to: (7-1-93)
- (1) The bottom twenty percent (20%) of water depth in natural lakes and reservoirs where depths are thirty-five (35) meters or less. (7-1-93)
- (2) The bottom seven (7) meters of water depth in natural lakes and reservoirs where depths are greater than thirty-five (35) meters. (7-1-93)
- (3) Those waters of the hypolimnion in stratified lakes and reservoirs. (7-1-93)
- ii. Water temperatures of twenty-two (22) degrees C or less with a maximum daily average of no greater than nineteen (19) degrees C. (8-24-94)
- iii. Ammonia. (8-24-94)
- (1) One (1) hour average concentration of un-ionized ammonia (as N) is not to exceed  $(0.43/A/B/2)$  mg/l, where:
- A = 1 if the water temperature (T) is greater than or equal to 20 degrees C (if T > 30 degrees C site-specific criteria should be defined), or
- A =  $10^{\text{power}(0.03(20-T))}$  if T is less than twenty (20) degrees C, and
- B = 1 if the pH is greater than or equal to 8 (if pH > 9.0 site-specific criteria should be defined); or
- B =  $(1 + 10^{\text{power}(7.4-pH)})/1.25$  if pH is less than 8 (if pH < 6.5 site-specific criteria should be defined). (8-24-94)
- (i) The following Table gives one-hour average criteria for un-ionized ammonia (mg/l as N) at various water temperatures and pH values. The corresponding total ammonia concentration (mg/l as N) is given below each un-ionized ammonia criterion. (8-24-94)

**TABLE III--COLD WATER BIOTA: ONE-HOUR AVERAGE CRITERIA FOR UN-IONIZED (TOP) AND TOTAL (BOTTOM) AMMONIA (mg/l as N) AT SELECTED WATER TEMPERATURES AND PH VALUES.**

WATER TEMP. DEGREES C	pH						
	6.50	6.60	6.80	7.00	7.20	7.40	7.60
0.00	0.01	0.01	0.01	0.02	0.03	0.03	0.04
	28.92	28.07	26.01	23.27	19.94	16.31	12.62
2.00	0.01	0.01	0.02	0.02	0.03	0.04	0.05
	28.05	27.26	25.26	22.59	19.35	15.82	12.25
4.00	0.01	0.01	0.02	0.03	0.03	0.04	0.05
	27.34	26.52	24.57	22.03	18.92	15.40	11.94
6.00	0.01	0.01	0.02	0.03	0.04	0.05	0.06
	26.63	25.93	23.99	21.55	18.47	15.07	11.67
8.00	0.01	0.02	0.02	0.03	0.05	0.06	0.07
	26.08	25.35	23.55	21.01	18.01	14.74	11.44
10.00	0.02	0.02	0.03	0.04	0.05	0.07	0.08
	25.57	24.87	23.11	20.62	17.72	14.45	11.22
12.00	0.02	0.02	0.03	0.04	0.06	0.08	0.09
	25.13	24.43	22.66	20.29	17.39	14.21	11.04
14.00	0.02	0.02	0.04	0.05	0.07	0.09	0.11
	24.76	24.05	22.28	19.98	17.13	14.03	10.89
16.00	0.02	0.03	0.04	0.06	0.08	0.10	0.12
	24.43	23.84	22.00	19.75	16.92	13.85	10.78
18.00	0.03	0.03	0.05	0.07	0.09	0.12	0.14
	24.23	23.55	21.76	19.49	16.77	13.70	10.63
20.00	0.03	0.04	0.05	0.08	0.10	0.13	0.16
	24.04	23.27	21.58	19.32	16.61	13.60	10.56
22.00	0.03	0.04	0.05	0.08	0.10	0.13	0.16
	20.72	20.09	18.67	16.75	14.38	11.79	9.15
24.00	0.03	0.04	0.05	0.08	0.10	0.13	0.16
	17.99	17.43	16.20	14.52	12.48	10.26	7.96
26.00	0.03	0.04	0.05	0.08	0.10	0.13	0.16
	15.57	15.19	14.05	12.61	10.85	8.90	6.95
28.00	0.03	0.04	0.05	0.08	0.10	0.13	0.16
	13.60	13.18	12.23	10.98	9.45	7.77	6.06
30.00	0.03	0.04	0.05	0.08	0.10	0.13	0.16
	11.83	11.49	10.66	9.58	8.25	6.79	5.30

WATER TEMP. DEGREES C	pH						
	7.80	8.00	8.20	8.40	8.60	8.80	9.00
0.00	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	9.30	6.59	4.19	2.66	1.69	1.09	0.71
2.00	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	9.04	6.41	4.05	2.58	1.65	1.07	0.70
4.00	0.06	0.07	0.07	0.07	0.07	0.07	0.07
	8.82	6.25	3.98	2.53	1.62	1.05	0.69
6.00	0.07	0.08	0.08	0.08	0.08	0.08	0.08
	8.82	6.10	3.89	2.48	1.60	1.04	0.69
8.00	0.08	0.09	0.09	0.09	0.09	0.09	0.09
	8.44	5.98	3.82	2.44	1.57	1.03	0.69
10.00	0.10	0.11	0.11	0.11	0.11	0.11	0.11
	8.31	5.89	3.75	2.41	1.56	1.03	0.69
12.00	0.11	0.12	0.12	0.12	0.12	0.12	0.12
	8.13	5.81	3.70	2.38	1.55	1.02	0.69
14.00	0.13	0.14	0.14	0.14	0.14	0.14	0.14
	8.04	5.73	3.67	2.37	1.55	1.03	0.70
16.00	0.15	0.16	0.16	0.16	0.16	0.16	0.16
	7.97	5.68	3.65	2.36	1.55	1.04	0.72
18.00	0.17	0.19	0.19	0.19	0.19	0.19	0.19
	7.90	5.66	3.64	2.36	1.56	1.05	0.73
20.00	0.19	0.22	0.22	0.22	0.22	0.22	0.22
	7.88	5.63	3.63	2.37	1.57	1.08	0.76
22.00	0.19	0.22	0.22	0.22	0.22	0.22	0.22
	6.82	4.90	3.17	2.09	1.39	0.96	0.68
24.00	0.19	0.22	0.22	0.22	0.22	0.22	0.22
	5.93	4.27	2.77	1.84	1.24	0.86	0.62
26.00	0.19	0.22	0.22	0.22	0.22	0.22	0.22
	5.18	3.74	2.44	1.62	1.10	0.77	0.57
28.00	0.19	0.22	0.22	0.22	0.22	0.22	0.22
	4.53	3.28	2.15	1.43	0.99	0.70	0.52
30.00	0.19	0.22	0.22	0.22	0.22	0.22	0.22
	3.97	2.88	1.90	1.28	0.88	0.64	0.48

(2) Four-day average concentration of un-ionized ammonia (as N) is not to exceed (0.66/A/B/C) mg/l, where:

A = 1.4 if the water temperature (T) is greater than or equal to 15 degrees C (if T > 30 degrees C site-specific criteria should be defined), or

A =  $10^{\text{power}(0.03(20-T))}$  if T is less than fifteen (15) degrees C, and

B = 1 if the pH is greater than or equal to 8 (if pH > 9.0 site-specific criteria should be defined), or

B =  $(1 + 10^{\text{power}(7.4-\text{pH})})/1.25$  if pH is less than 8 (if pH < 6.5 site-specific criteria should be defined), and

C = 13.5 if pH is greater than or equal to 7.7, or

C =  $20(10^{\text{power}(7.7-\text{pH})}/(1 + 10^{\text{power}(7.4-\text{pH})}))$  if the pH is less than 7.7. (4-13-95)

(i) The following Table gives four-day average criteria for un-ionized ammonia (mg/l as N) at various water temperatures and pH values. The corresponding total ammonia concentration (mg/l as N) is given below each un-ionized ammonia criterion. (8-24-94)

**TABLE IV--COLD WATER BIOTA: FOUR-DAY AVERAGE CRITERIA FOR UN-IONIZED (TOP) AND TOTAL (BOTTOM) AMMONIA (mg/l as N) AT SELECTED WATER TEMPERATURES AND PH VALUES.**

WATER TEMP DEGREES C	pH				
	6.5	6.6	6.8	7.0	7.2
0	0.0007	0.0008	0.0013	0.0021	0.0033
	2.5	2.5	2.5	2.5	2.5
2	0.0008	0.0009	0.0015	0.0024	0.0038
	2.5	2.5	2.5	2.5	2.5
4	0.0009	0.0011	0.0017	0.0027	0.0043
	2.4	2.4	2.4	2.4	2.4
6	0.0010	0.0012	0.0020	0.0031	0.0050
	2.3	2.3	2.3	2.3	2.4
8	0.0011	0.0014	0.0023	0.0036	0.0057
	2.3	2.3	2.3	2.3	2.3
10	0.0013	0.0016	0.0026	0.0041	0.0065
	2.3	2.3	2.3	2.3	2.3
12	0.0015	0.0019	0.0030	0.0054	0.0075
	2.2	2.2	2.2	2.2	2.2
14	0.0017	0.0022	0.0034	0.0054	0.0086
	2.2	2.2	2.2	2.2	2.2
16	0.0019	0.0023	0.0037	0.0059	0.0093

WATER TEMP DEGREES C	pH				
	6.5	6.6	6.8	7.0	7.2
	2.0	2.0	2.0	2.0	2.0
18	0.0019	0.0023	0.0037	0.0059	0.0093
	1.7	1.7	1.7	1.7	1.7
20	0.0019	0.0023	0.0037	0.0059	0.0093
	1.50	1.50	1.51	1.51	1.51
22	0.0019	0.0023	0.0037	0.0059	0.0093
	1.30	1.30	1.30	1.30	1.31
24	0.0019	0.0023	0.0037	0.0059	0.0093
	1.13	1.13	1.13	1.13	1.13
26	0.0019	0.0023	0.0037	0.0059	0.0093
	0.98	0.98	0.98	0.98	0.99
28	0.0019	0.0023	0.0037	0.0059	0.0093
	0.85	0.85	0.85	0.86	0.86
30	0.0019	0.0023	0.0037	0.0059	0.0093
	0.74	0.74	0.74	0.75	0.75

WATER TEMP. DEGREES C	pH				
	7.4	7.6	7.8	8.0	8.2
0	0.0052	0.0082	0.0110	0.0123	0.0123
	2.5	2.6	2.2	1.52	0.97
2	0.0060	0.0094	0.0126	0.0141	0.0141
	2.5	2.5	2.1	1.48	0.94
4	0.0068	0.0108	0.0145	0.0162	0.0162
	2.4	2.4	2.0	1.44	0.92
6	0.0079	0.0125	0.0166	0.0186	0.0186
	2.4	2.4	2.0	1.41	0.90
8	0.0090	0.0143	0.0191	0.0213	0.0213
	2.3	2.3	2.0	1.38	0.88
10	0.0104	0.0164	0.0219	0.0245	0.0245
	2.3	2.3	1.9	1.36	0.87
12	0.0119	0.0189	0.0252	0.0281	0.0281



WATER TEMP. DEGREES C	pH				
	7.4	7.6	7.8	8.0	8.2
	2.2	2.2	1.9	1.34	0.86
14	0.0137	0.0216	0.0289	0.0323	0.0323
	2.2	2.2	1.9	1.32	0.85
16	0.0148	0.0234	0.0312	0.0349	0.0349
	2.0	2.0	1.7	1.24	0.79
18	0.0148	0.0234	0.0312	0.0349	0.0349
	1.8	1.8	1.5	1.07	0.69
20	0.0148	0.0234	0.0312	0.0349	0.0349
	1.52	1.53	1.30	0.93	0.60
22	0.0148	0.0234	0.0312	0.0349	0.0349
	1.31	1.32	1.12	0.81	0.52
24	0.0148	0.0234	0.0312	0.0349	0.0349
	1.14	1.15	0.98	0.70	0.46
26	0.0148	0.0234	0.0312	0.0349	0.0349
	0.99	1.00	0.85	0.61	0.40
28	0.0148	0.0234	0.0312	0.0349	0.0349
	0.86	0.87	0.75	0.54	0.35
30	0.0148	0.0234	0.0312	0.0349	0.0349
	0.75	0.76	0.65	0.47	0.31

WATER TEMP. DEGREES C	pH			
	8.4	8.6	8.8	9.0
0	0.0123	0.0123	0.0123	0.0123
	0.61	0.39	0.25	0.163
2	0.0141	0.0141	0.0141	0.0141
	0.60	0.38	0.25	0.161
4	0.0162	0.0162	0.0162	0.0162
	0.58	0.37	0.24	0.159
6	0.0186	0.0186	0.0186	0.0186
	0.57	0.37	0.24	0.158
8	0.0213	0.0213	0.0213	0.0213
	0.56	0.36	0.24	0.158
10	0.0245	0.0245	0.0245	0.0245

WATER TEMP DEGREES C	pH			
	8.4	8.6	8.8	9.0
	0.56	0.36	0.24	0.158
12	0.0281	0.0281	0.0281	0.0281
	0.55	0.36	0.24	0.159
14	0.0323	0.0323	0.0323	0.0323
	0.55	0.36	0.24	0.162
16	0.0349	0.0349	0.0349	0.0349
	0.51	0.34	0.23	0.155
18	0.0349	0.0349	0.0349	0.0349
	0.45	0.29	0.20	0.138
20	0.0349	0.0349	0.0349	0.0349
	0.39	0.26	0.18	0.124
22	0.0349	0.0349	0.0349	0.0349
	0.34	0.23	0.16	0.112
24	0.0349	0.0349	0.0349	0.0349
	0.30	0.20	0.14	0.102
26	0.0349	0.0349	0.0349	0.0349
	0.27	0.18	0.127	0.093
28	0.0349	0.0349	0.0349	0.0349
	0.24	0.16	0.115	0.085
30	0.0349	0.0349	0.0349	0.0349
	0.21	0.15	0.105	0.079

iv. Turbidity, below any applicable mixing zone set by the Department, shall not exceed background turbidity by more than fifty (50) NTU instantaneously or more than twenty-five (25) NTU for more than ten (10) consecutive days. (8-24-94)

d. Salmonid spawning: waters designated for salmonid spawning are to exhibit the following characteristics during the spawning period and incubation for the particular species inhabiting those waters: (7-1-93)

- i. Dissolved Oxygen. (8-24-94)
  - (1) Intergravel Dissolved Oxygen. (8-24-94)
    - (a) One (1) day minimum of not less than five point zero (5.0) mg/l. (8-24-94)
    - (b) Seven (7) day average mean of not less than six point zero (6.0) mg/l. (8-24-94)
  - (2) Water-Column Dissolved Oxygen. (8-24-94)

- (a) One (1) day minimum of not less than six point zero (6.0) mg/l or ninety percent (90%) of saturation, whichever is greater. (8-24-94)
- ii. Water temperatures of thirteen (13) degrees C or less with a maximum daily average no greater than nine (9) degrees C. (8-24-94)
- iii. Ammonia (8-24-94)
  - (1) One (1) hour average concentration of un-ionized ammonia is not to exceed the criteria defined at Idaho Department of Health and Welfare Rules Subsection 250.02.c.iii.(1). (8-24-94)
  - (2) Four (4) day average concentration of un-ionized ammonia is not to exceed the criteria defined at Idaho Department of Health and Welfare Rules Subsection 250.02.c.iii.(2). (8-24-94)
- iv. Unless modified for site-specific conditions, the time periods for salmonid spawning and incubation in the following Table shall apply for the indicated species. (8-24-94)

**TABLE - Time Periods for Salmonid Spawning and Incubation.**

Fish Species	(Annually) Time Period
Chinook salmon (spring)	Aug 1 - Apr 1
Chinook salmon (summer)	Aug 15 - June 15
Chinook Salmon (fall)	Sept 15 - Apr 15
Sockeye Salmon	Oct 1 - June 1
Steelhead trout	Feb 1 - July 15
Redband trout	Mar 1 - July 15
Cutthroat trout	Apr 1 - Aug 1
Sunapee trout	Sept 15 - June 10
Bull trout	Sept 1 - Apr 1
Golden trout	June 15 - Aug 15
Kokanee	Aug 1 - June 1
Rainbow trout	Jan 15 - July 15
Mountain whitefish	Oct 15 - Mar 15
Brown trout	Oct 1 - Apr 1
Brook trout	Oct 1 - June 1
Lake trout	Oct 1 - Apr 1
Arctic grayling	Apr 1 - July 1

(8-24-94)

e. Bull Trout Temperature Criteria. Water temperatures for the waters identified under Subsection 250.02 e.i. shall not exceed twelve degree Celsius (12C) daily average during June, July and August for juvenile bull trout rearing, and nine degrees Celsius (9C) daily average during September and October for bull trout spawning. For

the purposes of measuring these criteria, the daily average shall be generated from a recording device with a minimum of six (6) evenly spaced measurements in a twenty-four (24) hour period. (3-23-98)

i. The bull trout temperature criteria shall apply to all tributary waters, not including fifth (5th) order main stem rivers, located within areas above fourteen hundred (1400) meters elevation south of the Salmon River basin-Clearwater River basin divide, and above six hundred (600) meters elevation north of the Salmon River basin-Clearwater River basin divide, in the fifty-nine (59) Key Watersheds listed in Table 6, Appendix F of Governor Batt's State of Idaho Bull Trout Conservation Plan, 1996, or as designated under Sections 110 through 160 of this rule. (3-23-98)

ii. Exceeding the bull trout temperature criteria will not be considered a water quality standards violation when the air temperature exceeds the ninetieth (90th) percentile of the seven (7) day average daily maximum air temperatures for the warmest seven (7) day period of the year. (3-23-98)

iii. No thermal discharges will be permitted to the waters described under Subsection 250.02.e.i. unless socially and economically justified as determined by the Department, and then only if the resultant increase in stream temperature is less than five-tenths degrees Celsius (0.5C). (3-23-98)

iv. The Director may, at his discretion, waive or raise the bull trout temperature criteria under Section 250.02.e. as they pertain to a specific water body included within Subsection 250.02.e.i. Any such determination shall be made consistent with 40 CFR 131.11 and shall be based on a finding that bull trout spawning and rearing is not an existing use in such water body or would be fully supported at a higher temperature criteria. For any determination under this subsection, the Director shall, prior to making a determination, provide for public notice and comment on the proposed determination. For any such proposed determination, the Director shall prepare and make available to the public a technical support document addressing the proposed modification. (3-23-98)

f. Kootenai River sturgeon temperature criteria. Water temperatures within the Kootenai River from Bonners Ferry to Shorty's Island, shall not exceed a seven (7) day moving average of fourteen degrees celsius (14C) based on daily average water temperatures, during May 1 through July 1. (3-23-98)

03. Water Supplies. (7-1-93)

a. Domestic: waters designated for domestic water supplies are to exhibit the following characteristics: (7-1-93)

i. All toxic substance criteria set forth in 40 CFR 131.36(b)(1), Column D1, revised as of December 22, 1992, effective February 5, 1993 (57 FR 60848, December 22, 1992). 40 CFR 131.36(b)(1) is hereby incorporated by reference in the manner provided in Subsection 250.07 provided, however, the standard for arsenic shall be fifty (50) ug/l for Column D1. (12-1-97)T

ii. Radioactive materials or radioactivity not to exceed concentrations specified in Idaho Department of Health and Welfare Rules, IDAPA 16, Title 01, Chapter 08, "Rules Governing Public Drinking Water Systems." (8-24-94)

iii. Small public water supplies (Surface Water). (8-24-94)

(1) The following Table identifies waters, including their watersheds above the public water supply intake (except where noted), which are designated as small public water supplies. (8-24-94)

**TABLE - DESIGNATED SMALL PUBLIC WATER SUPPLIES**

County	Water Body	Supply No.*	Supply System Name
Benewah	Adams Ck	1050011	Fernwood Water Dist.

County	Water Body	Supply No.*	Supply System Name
Boise	Elk Ck	4080025	Idaho City Water Dept.
Boise	McBride Ck.	4080047	Terrace Lakes Rec. Ranch
Bonner	Berry Ck	1090021	Colburn Water Assn.
Bonner	Strong Ck.	1090038	East Hope Water Dept.
Boundary	Meadow Ck.	1110001	Bee Line Water Assn.
Boundary	Curley Ck.	1110008	Curley Ck. Water Assn.
Boundary	Molar Ck. and Highland Ck.	1110017	Highland Flats Water Assn.
Boundary	Mission Ck	1110019	Mission Creek Water Assn.
Boundary	Caribou Ck.	1110020	Moravia Water Assn.
Boundary	Brown Creek and Cedar Ck.	1110023	Paradise Valley Water Assn.
Boundary	Skin Ck.	1110025	Skin Ck. Water Assn.
Boundary	Twenty Mile Ck.	1110030	Twenty Mile Ck. Water Assn.
Clearwater N.F.	Clearwater R.**	2180001	Ahsahka Water and Sewer District
Clearwater	Reeds Ck.	2180029	Potlatch Corp-Headquarters
Elmore	E.F. Montezuma Ck.	4200005	Atlanta Water Assn.
Idaho	Wall Creek	2250011	Clearwater Water Assn.
Idaho	Big Elk Ck.	2250017	Elk City Water/Sewer Assn.
Nez Perce	Big Canyon Ck.	2350023	Peck Water System
Shoshone	Sawmill Gulch and Canyon Ck.	1400016	Citizens Utility Co-Burke
Shoshone	Spring Gulch and Rosebud Gulch	1400032	Leisure Acres Trailer Court
Shoshone	Alder Ck. and East Alder Ck.	1400039	Murray Water Works
Shoshone	E.F. Silver Ck.	1400046	Silver Creek Water Assn.
Valley	Boulder Ck.	4430059	Yellowpine Water System, Inc.

\* Public water supply number assigned by IDHW/DEQ.

\*\* Only the portion of the watershed below Dworshak Dam is included. (8-24-94)

(2) For those surface waters identified in Subsection 250.03.a.iii.(1) turbidity as measured at the public water intake shall not be: (8-24-94)

(a) Increased by more than five (5) NTU above natural background, measured at a location upstream from or not influenced by any human induced nonpoint source activity, when background turbidity is fifty (50) NTU or less. (8-24-94)

(b) Increased by more than ten percent (10%) above natural background, measured at a location upstream from or not influenced by any human induced nonpoint source activity, not to exceed twenty-five (25) NTU, when background turbidity is greater than fifty (50) NTU. (8-24-94)

- b. Agricultural: water quality criteria for agricultural water supplies will generally be satisfied by the water quality criteria set forth in Section 200. Should specificity be desirable or necessary to protect a specific use, "Water Quality Criteria 1972" (Blue Book), Section V, Agricultural Uses of Water, EPA, March, 1973 will be used for determining criteria. This document is available for review at the Idaho Department of Health and Welfare, Division of Environmental Quality, or can be obtained from EPA or the U.S. Government Printing Office. (8-24-94)
- c. Industrial: water quality criteria for industrial water supplies will generally be satisfied by the general water quality criteria set forth in Section 200. Should specificity be desirable or necessary to protect a specific use, appropriate criteria will be adopted in Sections 250 or 275 through 298. (7-1-93)
04. Wildlife Habitats. Water quality criteria for wildlife habitats will generally be satisfied by the general water quality criteria set forth in Section 200. Should specificity be desirable or necessary to protect a specific use, appropriate criteria will be adopted in Sections 250 or 275 through 298. (7-1-93)
05. Aesthetics. Water quality criteria for aesthetics will generally be satisfied by the general water quality criteria set forth in Section 200. Should specificity be desirable or necessary to protect a specific use, appropriate criteria will be adopted in Sections 250 or 275 through 298. (7-1-93)
06. Development of Toxic Substance Criteria. (8-24-94)
- a. Aquatic Life Criteria. (8-24-94)
- i. Numeric criteria for the protection of aquatic life uses not identified in these rules for toxic substances, may be derived by the Department from the following information: (8-24-94)
- (1) Site-specific criteria developed pursuant to Section 275; (8-24-94)
- (2) Effluent biomonitoring, toxicity testing and whole-effluent toxicity determinations; (8-24-94)
- (3) The most recent recommended criteria defined in EPA's Aquatic Toxicity Information Retrieval (ACQUIRE) database. When using EPA recommended criteria to derive water quality criteria to protect aquatic life uses, the lowest observed effect concentrations (LOECs) shall be considered; or (8-24-94)
- (4) Scientific studies, including but not limited to, instream benthic assessment or rapid bioassessment. (8-24-94)
- b. Human Health Criteria. (8-24-94)
- i. When numeric criteria for the protection of human health are not identified in these rules for toxic substances, quantifiable criteria may be derived by the Department from the most recent recommended criteria defined in EPA's Integrated Risk Information System (IRIS). When using EPA recommended criteria to derive water quality criteria to protect human health a fish consumption rate of six point five (6.5) grams/day, a water ingestion rate of two (2) liters/day and a cancer risk level of ten (10) power-six (6) shall be utilized. (8-24-94)
07. Numeric Criteria for Toxic Substances. (8-24-94)
- a. 40 CFR 131.36, revised as of December 22, 1992, effective February 5, 1993 (57 FR 60848, December 22, 1992, the National Toxics Rule), and all subparts and notes are hereby incorporated by reference, except as noted in or amended by Subsections 250.07.a.i., 250.07.a.ii., 250.07.a.iii., 250.07.a.iv., and 250.07.a.v. (8-24-94)
- i. The reference to "paragraph (d) of" in 40 CFR 131.36(c)(2)(iii) shall be deleted. (8-24-94)
- ii. The second sentence of 40 CFR 131.36(b)(1), footnote C shall be deleted. (8-24-94)
- iii. 40 CFR 131.36(c)(1) shall be deleted and replaced with the following: "The criteria in paragraph

(b) of this section apply to surface waters of the state as provided in Idaho IDAPA 16.01.02, "Water Quality Standards and Wastewater Treatment Requirements," Section 250. (8-24-94)

iv. The first sentence of 40 CFR 131.36(c)(4)(iii) shall be deleted and replaced with the following: "The criteria for metals (compounds #1-9 and 11-13 in subparagraph (b) of this section) are expressed as dissolved concentrations with the following conversion factors: Arsenic(III) 1.000; Cadmium 1.136672-(ln hardness x 0.041838 for CMC and 1.101672-(ln hardness x 0.041838) for CCC; Chromium(III) 0.316 for CMC and 0.860 for CCC; Chromium(VI) 0.982 for CMC and 0.962 for CCC; Copper 0.960; Lead 1.46203-(ln hardness x 0.145712); Mercury .85 for CMC only; Nickel 0.998 for CMC and 0.997 for CCC; Silver .85 for CMC only; Zinc 0.978 for CMC and 0.986 for CCC. Compound #10 (Selenium) is expressed as total recoverable concentrations. Compound #14 (Cyanide) is expressed as Weak Acid Dissociable (WAD) concentrations." (3-20-97)

v. 40 CFR 131.36(d) shall not be incorporated by reference. (8-24-94)

b. For the purposes of NPDES permitting, interpretation and implementation of metals criteria listed in Subsection 250.07.a. should be governed by the following standards, that are hereby incorporated by reference, in addition to the provisions of 40 CFR 131.36; provided, however, any identified conversion factors within these documents are not incorporated by reference. Metals criteria conversion factors are identified in Subsection 250.07.a.iv. of this rule. (3-20-97)

i. "Guidance Document on Dissolved Criteria -- Expression of Aquatic Life Criteria," EPA, October 1993; (8-24-94)

ii. "Guidance Document on Dynamic Modeling and Translators," EPA, August 1993; (8-24-94)

iii. "Guidance Document on Clean Analytical Techniques and Monitoring," EPA, October 1993. (8-24-94)

iv. "Interim Guidance on Determination and Use of Water-Effect Ratios for Metals," EPA, February 1994. (8-24-94)

**251. -- 259. (RESERVED).**

**260. VARIANCES FROM WATER QUALITY STANDARDS.**

01. Variances. Variances from meeting certain water quality standards may be granted by the Department provided they are consistent with the following requirements: (8-24-94)

a. When granted by the Department, individual variances are to be pollutant and discharger specific, and will be included as part of this section. (8-24-94)

b. In order to obtain a variance from a water quality standard, the discharger must demonstrate that meeting the standard is unattainable based on one or more of the following grounds: (8-24-94)

i. Naturally occurring pollutant concentrations prevent the attainment of the standard, or; (8-24-94)

ii. Natural, ephemeral, intermittent, or low flow conditions or water levels prevent the attainment of the standard, or; (8-24-94)

iii. Human caused conditions or sources of pollution prevent the attainment of the standard and cannot be remedied or would cause more environmental damage to correct than to leave in place, or; (8-24-94)

iv. Dams, diversions or other types of hydrologic modifications preclude the attainment of the standard, and it is not feasible to restore the water body to its original condition or to operate such modification in a way that would result in attainment of the standard, or; (8-24-94)

v. Physical conditions related to the natural features of the water body, unrelated to water quality,

preclude attainment of the standard, or; (8-24-94)

vi. Controls more stringent than technology-based effluent limitations would result in substantial and widespread economic and social impact. (8-24-94)

c. The discharger must submit to the Department documentation that treatment more advanced than required by technology-based effluent limitations have been considered and that alternative effluent control strategies have been evaluated. (8-24-94)

d. Any variance granted by the Department will remain in effect for a period of five (5) years or the life of the permit. (8-24-94)

i. Upon expiration of the five (5) year time period or permit, the discharger must either meet the standard or must re-apply for the variance in accordance with these rules. (8-24-94)

ii. In considering a re-application for a variance, the Department will require the discharger to demonstrate reasonable progress towards meeting the standard. (8-24-94)

02. Specific Variances. The following are specific variances granted by the Department in accordance with Subsection 260.01: (3-1-95)

a. Kinross DeLamar Mining Company is granted variances from meeting water quality standards listed in Subsection 250.07 for Copper, Selenium and Cyanide discharged to Jordan Creek, SWB-233. This variance expressly requires effluent limitations to equal zero point sixty-nine (0.69) mg/l daily and zero point forty-one (0.41) mg/l monthly for Copper, three point nine (3.9) mg/l daily and two point four (2.4) mg/l monthly for WAD Cyanide, and two point eight (2.8) mg/l daily and one point seven (1.7) mg/l monthly for Selenium, all presented on a total recoverable basis. Additionally, this variance is conditioned upon compliance with any terms identified in the state's certification of the discharge. (3-1-95)

**261. -- 274. (RESERVED).**

**275. SITE-SPECIFIC SURFACE WATER QUALITY CRITERIA.**

01. Procedures for Establishing Site-Specific Water Quality Criteria. The water quality criteria adopted in these standards may not always reflect the toxicity of a pollutant in a specific water body. These criteria also represent a limited number of the natural and human-made chemicals that exist in the environment which may pose a threat to designated or existing beneficial uses. Thus, it may be possible in some water bodies to develop new water quality criteria or modify existing criteria through site-specific analyses which will effectively protect designated and existing beneficial uses. (8-24-94)

a. The following are acceptable conditions for developing site-specific criteria: (8-24-94)

i. Resident species of a water body are more or less sensitive than those species used to develop a water quality criterion. (8-24-94)

(1) Natural adaptive processes have enabled a viable, balanced aquatic community to exist in waters where natural background levels of a pollutant exceed the water quality criterion (i.e., resident species have evolved a greater resistance to higher concentrations of a pollutant). (8-24-94)

(2) The composition of aquatic species in a water body is different from those used to derive a water quality criterion (i.e., more or less sensitive species to a pollutant are present or representative of a water body than have been used to derive a criterion). (8-24-94)

ii. Biological availability and/or toxicity of a pollutant may be altered due to differences between the physicochemical characteristics of the water in a water body and the laboratory water used in developing a water quality criterion (e.g., alkalinity, hardness, pH, salinity, total organic carbon, suspended solids, turbidity, natural complexing, fate and transport water, or temperature). (8-24-94)



- iii. The affect of seasonality on the physicochemical characteristics of a water body and subsequent effects on biological availability and/or toxicity of a pollutant may justify seasonally dependent site-specific criteria. (8-24-94)
- iv. Water quality criteria may be derived to protect and maintain existing ambient water quality. (8-24-94)
- v. Other factors or combinations of factors that upon review of the Department may warrant modifications to the criteria. (8-24-94)
- b. Any person may develop site-specific criteria in accordance with these rules. To insure that the approach to be used in developing site-specific criteria is scientifically valid, the Department shall be involved early in the planning of any site-specific analyses so that an agreement can be reached concerning the availability of existing data, additional data needs, methods to be used in generating new data, testing procedures to be used, schedules to be followed and quality control and assurance provisions to be used. (8-24-94)
- c. Site-specific criteria shall not impair designated or existing beneficial uses year-round (or seasonally for seasonal dependent criteria) and shall prevent acute and chronic toxicity outside of approved mixing zones. If site-specific criteria are seasonally dependent, the period when the criteria apply shall be clearly identified. (8-24-94)
- d. Site-specific criteria, if appropriate, shall include both chronic and acute concentrations to more accurately reflect the different tolerances of resident species to the inherent variability between concentrations and toxicological characteristics of a pollutant. (8-24-94)
- e. Site-specific criteria shall be clearly identified as maximum (not to be exceeded) or average values. If a criterion represents an average value, the averaging period shall be specified. The conditions, if any, when the criteria apply shall be clearly stated (e.g., specific levels of hardness, pH, water temperature, or bioavailability). Specific sampling requirements (location, frequency, etc.), if any, shall also be specified. (8-24-94)
- f. A site may be limited to the specific area affected by a point or nonpoint source of pollution or, if appropriate, an expanded geographical area (e.g., ecoregion, river basin, sub-basin, etc.). For a number of different water bodies to be designated as one site, their respective aquatic communities cannot vary substantially in sensitivity to a pollutant. Site boundaries shall be geographically defined. (8-24-94)
- g. Proposed site-specific water quality criteria must be approved by the Board in accordance with the Idaho Administrative Procedure Act. The Department of Health and Welfare, Division of Environmental Quality shall determine whether to approve a request for site-specific criteria in accordance with this section and within twenty-eight (28) days after receipt of the request, and will introduce acceptable site-specific criteria for rule-making. (8-24-94)
- h. The following are acceptable procedures for developing site-specific criteria for aquatic life protection. (8-24-94)
- i. Site-specific analyses for the development of new water quality criteria shall be conducted in a manner which is scientifically justifiable and consistent with the assumptions and rationale in "Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses," EPA 1985. This document is available for review at the Idaho Department of Health and Welfare, Division of Environmental Quality, or may be obtained from EPA or the U.S. Government Printing Office. (8-24-94)
- ii. Site-specific analyses for the modification of existing water quality criteria shall be conducted in accordance with one of the following procedures, as described in the "Water Quality Standards Handbook," EPA 1983. This document is available for review at the Idaho Department of Health and Welfare, Division of Environmental Quality, or may be obtained from EPA or the U.S. Government Printing Office. (8-24-94)
- (1) Recalculation Procedure. This procedure is used to account for differences in sensitivity to a

pollutant between resident species and those species used in deriving the criterion. Bioassays in laboratory water may be required for untested resident species. (8-24-94)

(2) Indicator Species Procedure. This procedure is used to account for differences in biological availability and/or toxicity of a chemical between the physicochemical characteristics of the water in a water body and the laboratory water used in developing criteria. Bioassays in site water are required using resident species or acceptable nonresident species. (8-24-94)

(3) Resident Species Procedure. This procedure is used to account for differences in both resident species sensitivity and biological availability and/or toxicity of a pollutant. Bioassays in site water using resident species are required. (8-24-94)

(4) Water effects ratios as defined by EPA guidance documents. (8-24-94)

(5) Other scientifically defensible procedures such as relevant aquatic field studies, laboratory tests, biological translators, fate and distribution models, risk analyses or available scientific literature. (8-24-94)

(a) Deviations from the above described EPA procedures shall have justifications which are adequately documented and based on sound scientific rationale. (8-24-94)

(b) The data, testing procedures and application factors used to develop site-specific criteria shall reflect the nature of the pollutant (e.g., persistency, bioaccumulation potential, avoidance or attraction responses in fish, etc.), the designated and existing beneficial uses, and the most sensitive resident species of a water body. (8-24-94)

02. Water Quality Criteria for Specific Waters. Standards provided in Sections 276 through 298 for specific waters will supersede Section 250, when the application of the standards contained in both sections would present a conflict. (7-1-93)

**276. DISSOLVED OXYGEN STANDARDS FOR WATERS DISCHARGED FROM DAMS, RESERVOIRS, AND HYDROELECTRIC FACILITIES.**

Under the terms specified under this section, waters discharged from dams, reservoirs and hydroelectric facilities shall not be subject to the provisions of Subsection 250.02.c.i. or 250.02.d.i. (7-1-93)

01. Applicability. Subsections 276.02, 276.03 and 276.04 shall apply to all waters below dams, reservoirs, and hydroelectric facilities as far downstream as the point of measurement as defined in Subsection 276.05. Downstream of that point of measurement, all discharges to the waters shall be subject to the provisions of Subsections 250.02.c.i. and 250.02.d.i. (7-1-93)

02. Dissolved Oxygen Concentrations Below Existing Facilities. As of the effective date of these regulations, and except as noted in Subsections 276.03 and 276.04, waters below dams, reservoirs, and hydroelectric facilities shall contain the following dissolved oxygen concentrations during the time period indicated:

Time Period (annually)	mg/l Dissolved Oxygen		
	30-day Mean	7-Day Mean Minimum	Instantaneous Minimum
June 15 - Oct 15	6.0	4.7	3.5

(7-1-93)

03. Dissolved Oxygen Concentrations for Modifications of Existing Facilities or for New Facilities. Modifications of existing facilities or new facilities are subject to the provisions of Subsection 276.02 unless the state has documented the existence of significant fish spawning areas below the facility. If such areas exist, then waters below those facilities shall contain the dissolved oxygen concentrations shown in Subsection 276.02 during the

modified time periods indicated for each species below:

Fish Species	Time Period (annually)
Cutthroat trout	July 1 - Oct 15
Kokanee and Chinook Salmon	June 15 - Aug 1
Bull Trout	June 15 - Sept 1

(7-1-93)

04. Dissolved Oxygen Concentrations Below American Falls Dam. All waters below American Falls Dam shall contain the following dissolved oxygen concentrations during the time period indicated:

Time Period (annually)	mg/l Dissolved Oxygen		
	30-Day Mean	7-Day Mean Minimum	Instantaneous Minimum
May 15 - Oct 15	5.5	4.7	3.5

(7-1-93)

05. Point of Measurement. For the purpose of determining compliance with Subsections 276.02, 276.03 and 276.04, the dissolved oxygen shall be measured at a single location in the river downstream from the hydroelectric facilities. Such location shall be as close to the facilities as practical to obtain a representative measurement, but in all cases shall be sufficient distance downstream to allow thorough mixing of reaerated waters, spilled by-pass waters, and other waters that have passed through the facility. (7-1-93)

06. Instantaneous Minimum. Any measurement of dissolved oxygen below the applicable instantaneous minimum will be considered a violation unless that measurement is followed by two (2) consecutive measurements at or above the instantaneous minimum and taken within twenty (20) minutes of the initial measurement (at ten (10) minute intervals). (1-10-86)

07. Procedures and Conditions for Variances. The Board may grant a variance, on an individual basis, to the dissolved oxygen standards, the applicable dates of compliance, or both, as listed in Subsections 276.02, 276.03, or 276.04 only if: (7-1-93)

a. A written petition requesting a variance is submitted to the Department; (7-1-93)

b. The petition includes documentation of site-specific biological studies which demonstrate that no significant fishery impacts will occur as a result of the variance, if granted; and (7-1-93)

c. The requested variance will not result in departure from the three point five (3.5) mg/l instantaneous minimum dissolved oxygen requirements of this section. (1-10-86)

277. (RESERVED).

278. **BOISE RIVER - SWB 270 AND SWB 280 -- SALMONID SPAWNING AND DISSOLVED OXYGEN.** The waters of the Boise River from Veterans State Park to its mouth will have dissolved oxygen concentrations of six (6) mg/l or seventy-five percent (75%) of saturation, whichever is greater, during the spawning period of salmonid fishes inhabiting those waters. (7-1-93)

279. (RESERVED).

**280. ROCK CREEK, CEDAR DRAW, DEEP CREEK AND BIG WOOD RIVER - CANAL SYSTEM.**

01. Rock Creek, Cedar Draw, and Deep Creek. For the purposes of water quality protection, the following waterways are recognized as used by the Twin Falls Canal Company as spillways, collection and conveyance facilities and such waterways shall also be protected for those uses: Rock Creek from the intersection with the High Line Canal of the Twin Falls Canal System to the mouth; Cedar Draw from the intersection with the High Line Canal of the Twin Falls Canal System to the mouth, Deep Creek from the intersection with the High Line Canal of the Twin Falls Canal system to the mouth, all in Twin Falls County. (7-1-93)

02. Big Wood River - Canal System. For the purposes of water quality protection, the following waterway is also recognized as used by the North Side Canal Company for the purposes of conveying canal water and shall also be protected for that use: Big Wood River from the point of union with the North Side Canal System, located in Section 31, T. 5 S., R. 15 E., Boise Meridian, downstream to the last irrigation diversion of the North Side Canal Company from the Malad River located in Section 25, T. 6 S., R. 13 E., Boise Meridian. (7-1-93)

281. (RESERVED).

**282. SOUTH FORK COEUR D'ALENE RIVER AND ALL TRIBUTARY WATERS - PB-130S, PB-140S, PB-121S, PB-142S, PB-143S, PB-145S, PB-146S, PB-147S, PB-148S, UNDESIGNATED TRIBUTARIES - SITE-SPECIFIC CRITERIA FOR METALS.**

The waters of the South Fork Coeur d'Alene River from its headwaters to its mouth (confluence with North Fork Coeur d'Alene River) and all tributaries will have site-specific aquatic life metals criteria as follows: (3-1-98)T

01. Cadmium. The acute criterion shall be forty-seven one hundredths (0.47) ug/l and the chronic criterion shall be forty-seven one hundredths (0.47) ug/l, both expressed as dissolved concentrations. (3-1-98)T

02. Lead. The acute criterion shall be two hundred forty-five (245) ug/l and the chronic criterion shall be one hundred eighteen (118) ug/l, both expressed as dissolved concentrations. (3-1-98)T

03. Zinc. The acute criterion shall be one hundred sixty-three (163) ug/l and the chronic criterion shall be one hundred sixty-three (163) ug/l, both expressed as dissolved concentrations. (3-1-98)T

283. -- 298. (RESERVED).

**299. GROUND WATER QUALITY STANDARDS.**

Wherever attainable, ground waters of the state shall be protected for beneficial uses including potable water supplies. Ground waters existing at higher than potable water quality or ground waters which are highly vulnerable to contamination due to the geologic and hydrologic characteristics of areas overlying their occurrence, may be designated by the Department as special resource waters. (8-24-94)

01. Activity Restrictions on Spokane Valley - Rathdrum Prairie Aquifer. The waters of the Spokane Valley - Rathdrum Prairie Aquifer, in its designation as a "sole source" as defined by the EPA under Section 1424e. of the Safe Drinking Water Act, must not be lowered in quality, as it relates to beneficial uses, as a result of a point source or nonpoint source activity unless it is demonstrated by the person proposing the activity that such change is justifiable as a result of necessary economic or social development. (8-24-94)

02. Ground Water Use Classifications. Waters are designated according to the uses for which they are presently suitable or intended to become suitable. The designated uses for which the ground waters of the state are to be protected include, but are not limited to: (8-24-94)

a. Agricultural water supplies: waters which are suitable or intended to be made suitable for the irrigation of crops or as drinking water for livestock; (7-1-93)

b. Domestic water supplies: waters which are suitable or intended to be made suitable for drinking water supplies; (7-1-93)

- c. Industrial water supplies: all state ground waters are designated for the use of industrial water supply. Water quality criteria for this use will generally be satisfied by the general ground water quality criteria. Should specificity be desirable or necessary to protect the use, appropriate criteria will be adopted; (8-24-94)
- d. Potable water supplies: waters which are suitable or intended to be made suitable for potable water supplies. (7-1-93)
03. Use Designations for Ground Water. (8-24-94)
- a. Ground waters not specified in Subsection 299.03.b. are designated and protected for potable water supplies unless the existing ground water quality precludes the economic feasibility of use as a domestic source due to natural or man-made causes as determined by the Department. In those cases, the ground water will be protected for other existing beneficial uses, if any, as determined by the Department; (8-24-94)
- b. Designated beneficial uses for the Spokane Valley - Rathdrum Prairie Aquifer are domestic water supply, agricultural water supply and special resource water. (7-1-93)
04. General Ground Water Quality Criteria. The following general water quality criteria apply to all ground waters of the state in addition to the water quality standards set forth for specifically classified waters: (8-24-94)
- a. Hazardous materials (see Subsection 003.44) shall not occur in concentrations found to be of public health significance or to adversely affect designated beneficial uses. These materials do not include suspended sediment produced as a result of nonpoint source activities; (3-20-97)
- b. Deleterious materials (see Subsection 003.20) shall not occur in concentrations that impair designated beneficial uses without being hazardous. These materials do not include suspended sediment produced as a result of nonpoint source activities; (3-20-97)
- c. Radioactive materials or radioactivity shall not exceed the values listed in the Code of Federal Regulations Title 10, Chapter 1, Part 20, Appendix B, Table 2, Effluent Concentrations, Column 2. (8-24-94)
- d. Radioactive materials or radioactivity shall not exceed concentrations required to meet the standards set forth in Title 10, Chapter 1, Part 20 of the Code of Federal Regulations for maximum exposure of critical human organs in the case of foodstuffs harvested from these waters for human consumption. (7-1-93)
05. Criteria for Water Supplies From Ground Water. (8-24-94)
- a. Ground water designated and protected for domestic water supplies is to exhibit the following characteristics: TABLE - Maximum Allowable Concentrations for Selected Substances.

Substance	Maximum Allowable Concentrations (mg/l)	Air Temperature (C)
Arsenic	0.050	
Barium	1.000	
Cadmium	0.010	
Chromium	0.050	
Cyanide	0.200	
Fluoride*	2.400	Up to 12.0
	2.200	12.1 - 14.6

Substance	Maximum Allowable Concentrations (mg/l)	Air Temperature (C)
	2.000	14.7 - 17.6
	1.800	17.7 - 21.4
	1.600	21.5 - 26.1
	1.400	26.2 - 32.6
Lead	0.050	
Mercury	0.002	
Nitrate (as N)	10.000	
Selenium	0.010	
Silver	0.050	
Endrin	0.0002	
Lindane	0.004	
Methoxychlor	0.100	
Sodium	20.000**	
Toxaphene	0.005	
Trihalomethanes	0.100	
2,4-D	0.100	
2,4,5-TP Silvex	0.010	

\* As determined by the average annual maximum daily air temperature for the area when the water is to be used.

- \*\* No maximum established; twenty (20) suggested as optimum. (3-20-97)
- b. Ground water designated and protected for potable water supplies is not to exceed: (8-24-94)
- i. Maximum allowable concentrations of substances specified in Subsection 299.05.a. (8-24-94)
- ii. Secondary quality standards specified in Idaho Department of Health and Welfare Rules, IDAPA 16, Title 01, Chapter 08, Section 400, "Rules Governing Public Drinking Water Systems." (8-24-94)
- iii. A coliform bacteria count of two (2) per hundred milliliter for any individual sample. (7-1-93)
- iv. Turbidity measurements of five (5) nephelometric turbidity units (NTUs) for any individual sample. (7-1-93)

**300. -- 349. (RESERVED).**

**350. RULES GOVERNING NONPOINT SOURCE ACTIVITIES.**

- 01. Implementation Policy. (7-1-93)
  - a. Nonpoint sources defined in Subsection 003.62 are the result of activities essential to the economic and social welfare of the state. The a real extent of most nonpoint source activities prevents the practical application of conventional wastewater treatment technologies. Nonpoint source pollution management, including best

management practices, is a process for protecting the designated beneficial uses and ambient water quality. Best management practices should be designed, implemented and maintained to provide full protection or maintenance of beneficial uses. Violations of water quality standards which occur in spite of implementation of best management practices will not be subject to enforcement action. However, if subsequent water quality monitoring and surveillance by the Department, based on the criteria listed in Sections 200 and 250, indicate water quality standards are not met due to nonpoint source impacts, even with the use of current best management practices, the practices will be evaluated and modified as necessary by the appropriate agencies in accordance with the provisions of the Administrative Procedure Act. If necessary, injunctive or other judicial relief may be initiated against the operator of a nonpoint source activity in accordance with the Director's authorities provided in Section 39-108, Idaho Code. In certain cases, revision of the water quality standards may be appropriate. (3-20-97)

b. As provided in Subsections 350.01.a. and 350.02.a. for nonpoint source activities, failure to meet general or specific water quality criteria, or failure to fully protect a beneficial use, shall not be considered a violation of the water quality standards for the purpose of enforcement. Instead, water quality monitoring and surveillance of nonpoint source activities will be used to evaluate the effectiveness of best management practices in protecting beneficial uses as stated in Subsections 350.01.a. and 350.02.b. (12-31-91)

02. Limitation to Nonpoint Source Restrictions. Nonpoint source activities will be subject to the following: (7-1-93)

a. Except as provided in Subsections 350.02.b. and 350.02.c., so long as a nonpoint source activity is being conducted in accordance with applicable rules, regulations and best management practices as referenced in Subsection 350.03, or in the absence of referenced applicable best management practices, conducted in a manner that demonstrates a knowledgeable and reasonable effort to minimize resulting adverse water quality impacts, the activity will not be subject to conditions or legal actions based on Subsections 400.01.b. or 080.01. In all cases, if it is determined by the Director that imminent and substantial danger to the public health or environment is occurring, or may occur as a result of a nonpoint source by itself or in combination with other point or nonpoint source activities, then the Director may seek immediate injunctive relief to stop or prevent that danger as provided in Section 39-108, Idaho Code. (7-1-93)

b. If the Director determines through water quality monitoring and surveillance that water quality criteria are not being met, or that beneficial uses are being impaired as a result of a nonpoint source activity by itself or in combination with other point and nonpoint source activities then: (3-3-87)

i. For an activity occurring in a manner not in accordance with approved best management practices, or in a manner which does not demonstrate a knowledgeable and reasonable effort to minimize resulting adverse water quality impacts, the Director may with appropriate inter-Departmental coordination. (3-3-87)

(1) Prepare a compliance schedule as provided in Section 39-116, Idaho Code; and/or (2-2-83)

(2) Institute administrative or civil proceedings including injunctive relief under Section 39-108, Idaho Code. (3-3-87)

ii. For activities conducted in compliance with approved best management practices, or conducted in a manner which demonstrates knowledgeable and reasonable effort to minimize resulting adverse water quality impacts, the Director may, with appropriate inter-Departmental coordination: (3-3-87)

(1) For those activities with approved best management practices as listed in Subsection 350.03 formally request that the responsible agency conduct a timely evaluation and modification of the practices to insure full protection of beneficial uses. (12-31-91)

(2) For all other nonpoint source activities which do not have approved best management practices as listed in Subsection 350.03, develop and recommend to the operator control measures necessary to fully protect the beneficial uses. Such control measures may be implemented on a voluntary basis, or where necessary, through appropriate administrative or civil proceedings. (12-31-91)

(3) If, in a reasonable and timely manner the approved best management practices are not evaluated or

modified by the responsible agency, or if the appropriate control measures are not implemented by the operator, then the Director may seek injunctive relief to prevent or stop imminent and substantial danger to the public health or environment as provided in Section 39-108, Idaho Code. (3-3-87)

c. The Director may review for compliance project plans for proposed nonpoint source activities, based on whether or not the proposed activity will fully maintain or protect beneficial uses as listed in Sections 200 and 250. In the absence of relevant criteria in those Sections, the review for compliance will be based on whether or not the proposed activity: (12-31-91)

i. Will comply with approved or specialized best management practices; and (3-3-87)

ii. Provides a monitoring plan which, when implemented, will provide information to the Director adequate to determine the effectiveness of the approved or specialized best management practices in protecting the beneficial uses of water; and (3-3-87)

iii. Provides a process for modifying the approved or site-specific best management practices in order to protect beneficial uses of water. (3-3-87)

d. For projects determined not to comply with those requirements, the plan may be revised and resubmitted for additional review by the Department. Any person aggrieved by a final determination of the Director may, within thirty (30) days, file a written request for a hearing before the Board in accordance with the Idaho Administrative Procedures Act. In all cases, implementation of projects detailed in a plan shall be conducted in a manner which will not result in imminent and substantial danger to the public health or environment. (3-3-87)

03. Approved Best Management Practices. The following are approved best management practices for the purpose of Subsection 350.02: (12-31-91)

a. Idaho Forest Practices Rules as adopted by Board of Land Commissioners; (12-31-91)

b. Idaho Department of Health and Welfare Rules, Title 01, Chapter 06, "Rules Governing Solid Waste Management"; (7-1-93)

c. Idaho Department of Health and Welfare Rules, Title 01, Chapter 03, "Rules Governing Subsurface and Individual Sewage Disposal Systems"; (7-1-93)

d. "Rules and Minimum Standards for Stream-channel Alterations" as adopted by the Board of Water Resources; (7-1-93)

e. For the Spokane Valley Rathdrum Prairie Aquifer, "Rathdrum Prairie Sewage Disposal Regulations," as adopted by the Panhandle District Health Department Board of Health and approved by the Idaho Board of Health and Welfare; (7-1-93)

f. "Rules Governing Exploration and Surface Mining Operations in Idaho" as adopted by the Board of Land Commissioners; and (7-1-93)

g. "Rules Governing Placer and Dredge Mining in Idaho" as adopted by the Board of Land Commissioners. (7-1-93)

h. "Rules Governing Dairy Wastes," IDAPA 02.04.14, as adopted by the Department of Agriculture. (3-20-97)

04. Restriction of Nonpoint Source Activities on Outstanding Resource Waters. (12-31-91)

a. The water quality of ORWs shall be maintained and protected. After the legislature has designated a stream segment as an outstanding resource water, no person shall conduct a new or substantially modify an existing nonpoint source activity that can reasonably be expected to lower the water quality of that ORW, except for conducting short term or temporary nonpoint source activities which do not alter the essential character or special



uses of a segment, allocation of water rights, or operation of water diversions or impoundments. Stream segments not designated as ORWs that discharge directly into an ORW shall not be subject to the same restrictions as an ORW, nor shall the ORW mixing zone be subject to the same restrictions as an ORW. A person may conduct a new or substantially modify an existing nonpoint source activity that can reasonably be expected to lower the water quality of a tributary or stream segment, which discharges directly into an ORW or an ORW mixing zone, provided that the water quality of that ORW below the mixing zone shall not be lowered. (12-31-91)

b. After the legislature has designated a stream segment as an outstanding resource water as outlined in Subsection 055.05, existing nonpoint source activities may continue and shall be conducted in a manner that maintains and protects the current water quality of an ORW. The provisions of this section shall not affect short term or temporary activities that do not alter the essential character or special uses of a segment, allocation of water rights, or operations of water diversions or impoundments, provided that such activities shall be conducted in conformance with applicable laws and regulations. (3-20-97)

**351. -- 399. (RESERVED).**

**400. RULES GOVERNING POINT SOURCE DISCHARGES.**

01. Implementation Policy. (7-1-93)

a. As provided for in Subsection 080.01, and Sections 200, 250, 275, and 400 for point source discharges, failure to meet general or specific water quality criteria is a violation of the water quality standards; (8-24-94)

b. Except as noted in Section 400, no new point source can discharge pollutants, and no existing point source can increase its discharge of pollutants above the design capacity of its existing wastewater treatment facility, to any water designated as a special resource water or to a tributary of, or to the upstream segment of a special resource water: if pollutants significant to the designated beneficial uses can or will result in a reduction of the ambient water quality of the receiving special resource water as measured immediately below the applicable mixing zone. (8-24-94)

c. For those point sources that normally require authorization, no unauthorized discharge from a point source shall occur to waters of the state. (8-24-94)

02. Limitations to Point Source Restrictions. (7-1-93)

a. So long as a point source discharge or wastewater treatment facility is regulated by the terms and conditions of an authorization pursuant to Subsection 080.02, a Board order, decree or compliance schedule, a valid NPDES permit issued by the EPA, or is subject to the provisions of Subsection 401.05, the discharge or facility will not be subject to additional restrictions or conditions based on Subsections 080.01, 080.200, 080.250, or 400.01.b. (8-24-94)

b. The restrictions set forth in Subsection 400.01.b. are modified as follows: New point sources can discharge, and existing point sources can increase its discharge above the design capacity of its existing wastewater treatment facility, resulting in increases in water temperatures and fluoride concentrations up to levels needed to protect designated beneficial uses in the Boise River (SWB 260) between the bridge at Broadway Avenue and River Mile 50 (through Veteran's State Park). (7-1-93)

03. Compliance Schedules for Water Quality-Based Effluent Limitations. Discharge permits for point sources may incorporate compliance schedules which allow a discharger to phase in, over time, compliance with water quality-based effluent limitations when new limitations are in the permit for the first time. Compliance schedules for NPDES permits are limited to five years or the life of the permit. (8-24-94)

04. Wetlands Used for Wastewater Treatment. (8-24-94)

a. Waters contained within wetlands intentionally created from non-wetland sites for the purpose of wastewater or stormwater treatment, and operated in compliance with NPDES permit conditions, shall not be subject

to the application of general water quality-based or site-specific criteria and standards. (8-24-94)

b. Waters contained within wetlands intentionally created from non-wetland sites for the purpose of treatment of nonpoint sources of pollution, and operated in compliance with best management practices, shall not be subject to the application of general water quality-based or site specific criteria and standards. (8-24-94)

c. Discharges from treatment systems described in Sections 400.04.a. and 400.04.b. to waters of the state are subject to all applicable rules and requirements governing such discharges. (8-24-94)

05. Flow Tiered NPDES Permit Limitations. Discharge permits for point sources discharging to waters exhibiting unidirectional flow may incorporate tiered limitations for conventional and toxic constituents at the discretion of the department. (8-24-94)

#### 401. POINT SOURCE WASTEWATER TREATMENT REQUIREMENTS.

01. Appropriate Control Measures. The Department, through approval or disapproval of plans for wastewater treatment and disposal facilities, the issuance of wastewater discharge permits, orders, compliance schedules, directives or any of the mechanisms at its disposal, will require persons to apply appropriate control measures necessary to achieve and maintain the water quality standards contained herein. (7-1-93)

02. Degree of Treatment. The degree of wastewater treatment required to restore and maintain the standards of quality will be determined in each instance by the Department, based upon the following: (7-1-93)

- a. The uses which are made or desired of the receiving water; (7-1-93)
- b. The volume and nature of flow of the receiving water; (7-1-93)
- c. The quantity and quality of the wastewater to be treated; and (7-1-93)
- d. The presence or absence of other sources of water pollution on the same watershed, stream segment or aquifer. (7-1-93)

03. Treatment Requirements. Unless more stringent limitations are necessary to meet the applicable requirements of Sections 200 through 300 or unless specific exemptions are made pursuant to Subsection 080.02 or 401.05, wastewaters discharged into surface waters of the state must have the following characteristics: (7-1-93)

- a. Temperature - the wastewater must not affect the receiving water outside the mixing zone so that: (7-1-93)
  - i. The temperature of the receiving water or of downstream waters will interfere with designated beneficial uses. (7-1-93)
  - ii. Daily and seasonal temperature cycles characteristic of the water body are not maintained. (7-1-93)
  - iii. If the water is designated for warm water biota, the induced variation is more than +2 degrees C. (8-24-94)
  - iv. If the water is designated for cold water biota or salmonid spawning, the induced variation is more than plus one (+1) degree C. (8-24-94)
- b. Turbidity - the wastewater must not increase the turbidity of the receiving water outside the mixing zone by: (7-1-93)
  - i. More than five (5) NTU (Nephelometric Turbidity Units) over background turbidity, when background turbidity is fifty (50) NTU or less; or (7-1-93)
  - ii. More than ten percent (10%) increase in turbidity when background turbidity is more than fifty (50)

NTU, not to exceed a maximum increase of twenty-five (25) NTU. (7-1-93)

c. Total Chlorine Residual - the wastewater must not affect the receiving water outside the mixing zone so that its total chlorine residual concentration exceeds eleven one-thousandths (0.011) mg/l. (1-1-89)

04. Limitations on Increased Treatment Requirements. In spite of any other provision and future amendment of these regulations, any point source treatment facility whose construction began after June 28, 1973, which was designed to meet federal and state requirements and which was constructed to the full satisfaction of the Department, will not be subject to any more stringent requirements or limitations as can be imposed by the Department during a ten (10) year period beginning on the date of completion of such construction except: (7-1-93)

a. In conformance with contractual agreements made with the Department, in which case the date of completion of those agreements would establish the beginning of the ten (10) year period; (7-1-93)

b. When facility expansion, production increase, or process modification would alter the composition of the discharge or exceed the design capacity of the treatment facility; or (7-1-93)

c. When a component or a concentration of a component in the discharge is later found to be causing or to be capable of causing significant injury to a designated beneficial use. (8-24-94)

05. Exceptions to Treatment Requirements. Exceptions to treatment requirements can be granted on a case-by-case basis when it can be demonstrated by the person requesting the exceptions: (7-1-93)

a. That such exceptions will not seriously affect existing water quality and uses are adequately protected; (7-1-93)

b. That the treatment requirement is: (7-1-93)

i. Unreasonable with current applicable technology; or (7-1-93)

ii. Economically prohibitive; or (7-1-93)

c. That treatment to a lesser degree would result in a net improvement in the water quality of the receiving water. (7-1-93)

06. Operation. Any person who owns or operates any sewage or other wastewater treatment facility must at all times: (7-1-93)

a. Insure that such facility is operated under competent supervision and with the highest efficiency that can reasonably be expected; and (7-1-93)

b. Maintain such facility in good repair. (7-1-93)

07. Treatment Records. Any person who owns or operates any facility or carries out any operation which results in the discharge of wastewater must furnish to the Department such information concerning quality and quantity of discharged wastewaters and maintain such treatment records as the Department requires to evaluate the effects of any receiving waters. Required information can include, but is not limited to: (7-1-93)

a. Treated wastewater discharge volumes; and (7-1-93)

b. Treated wastewater discharge BOD; and (7-1-93)

c. Treated wastewater discharge suspended solid concentration; and (7-1-93)

d. Discharge pH; and (7-1-93)

e. Discharge temperatures. (7-1-93)

08. Falsification of Records. It is a violation of these regulations for any person to falsify or knowingly render inaccurate any treatment record which can be required as provided in these regulations. (7-1-93)

**402. REVIEW OF PLANS FOR WASTE TREATMENT FACILITIES.**

"Recommended Standards for Sewage Works" by the Great Lakes-Upper Mississippi River Board of State Sanitary Engineers, and all applicable laws, rules, regulations and standards will be used as guides in the review of plans and specifications for waste treatment facilities. (7-1-93)

01. Plan and Specification Approval Required. The construction, alteration or expansion of any sewage treatment system or other wastewater treatment or disposal facility must not begin before plans and specifications for the proposed facility have been submitted to and approved by the Department, except as provided in Subsection 402.03. (7-1-93)

02. Professional Engineer. Plans and specifications for construction, alteration or expansion of any publicly owned sewage wastewater treatment facility shall be prepared by or under the supervision of a registered professional engineer and shall bear the imprint of the engineer's seal. Construction shall be inspected by a registered professional engineer or a person under the supervision of a registered professional engineer. (7-1-93)

03. Deviations from Approved Plans. No deviations are to be made from the approved plans and specifications without prior approval of the Department. (7-1-93)

04. As-Constructed Plans and Specifications. If actual construction deviates from the approved plans and specifications, complete and accurate plans and specifications depicting the actual construction, alteration, or modification performed, shall be submitted to the Department for review and approval within thirty (30) days of completion of construction. (7-1-93)

05. Waiver of Approval Requirement. The Department can waive the plan and specification approval required in Subsection 402.01 for any particular facility or category of facilities which will have no significant impact on the environment or on the public health. (7-1-93)

**403. -- 419. (RESERVED).**

**420. POINT SOURCE SEWAGE WASTEWATER DISCHARGE RESTRICTIONS.**

All provisions and requirements of Sections 400, 401, and 402 are applicable to sewage wastewater treatment facilities and their discharges. (8-24-94)

01. General Treatment Requirements. Except as provided in Subsections 420.02 and 420.03, sewage wastewater discharges, except those from lagoon or trickling filter facilities, into surface waters of the state must have the following characteristics: (7-1-93)

a. BOD - the equivalent of eighty-five percent (85%) removal of the biochemical oxygen demand, but not more than a thirty (30) day average concentration of thirty (30) mg/l; and (7-1-93)

b. Suspended Solids - the equivalent of eighty-five percent (85%) removal of the suspended solids, but not more than a thirty (30) day average concentration of thirty (30) mg/l. (7-1-93)

02. Alternative Treatment Requirements. The following alternative treatment requirements are established to apply to facilities which provide at least sixty-five percent (65%) BOD removal using a trickling filter or lagoon as the principal treatment process, and which the Department determines cannot consistently achieve requirements of Subsections 420.01.a. and 420.01.b. (7-1-93)

a. Sewage wastewater discharges from facilities using trickling filters as the principal treatment process must have the following characteristics: (7-1-93)

i. BOD - not to exceed a thirty (30) day average concentration of forty-five (45) mg/l; and (7-1-93)

- ii. Suspended Solids - at least sixty-five percent (65%) removal and not to exceed a thirty (30) day average concentration of forty-five (45) mg/l. (7-1-93)
- b. Sewage wastewater discharges from facilities using lagoons as the principal treatment process must have the following characteristics: (7-1-93)
  - i. BOD - not to exceed a thirty (30) day average concentration of forty-five (45) mg/l; and (7-1-93)
  - ii. Suspended Solids - not to exceed a thirty (30) day average concentration of seventy (70) mg/l. (7-1-93)
- 03. Adjusted Treatment Requirements for Industrial Loading. The Department may proportionally adjust, on a case-by-case basis, the treatment requirements of Subsection 401.03 or 401.05 where industrial waste loadings contribute greater than ten percent (10%) of the design flow or loading into a publicly owned sewage treatment facility. (7-1-93)
- 04. Determining the Necessity for Disinfection of Sewage Wastewater Treatment Plant Effluent. (8-24-94)
  - a. Disinfection of sewage treatment plant effluent shall be required when discharged to a water body under the following conditions: (8-24-94)
    - i. The water body receiving the effluent flows through a significantly populated area or has a designated or existing beneficial use of primary contact recreation. (8-24-94)
    - ii. The water body receiving the effluent is a direct tributary to a water body that flows through a significantly populated area or has a designated or existing beneficial use of primary contact recreation and disinfection is necessary to protect public health. (8-24-94)
    - iii. Site-specific conditions warrant disinfection for the protection of public health. (8-24-94)
  - b. The need for disinfection of sewage wastewater treatment plant effluent where treatment consists of lagoons with at least thirty (30) day retention time shall be evaluated on a case-by-case basis. (8-24-94)
- 05. Disinfection Requirements for Sewage Wastewater Treatment Plant Effluent. When disinfection is determined to be required under Subsection 420.04, sewage wastewater treatment plant effluent must receive adequate disinfection by any disinfection process which satisfies the following applicable criteria, prior to discharge to any receiving water. (8-24-94)
  - a. Fecal coliform concentrations in secondary treated effluent (as determined by multiple-tube fermentation or membrane filter procedures) must not exceed a geometric mean of two hundred/one hundred (200/100) ml based on no more than one (1) week's data and a minimum of five (5) samples. (7-1-93)
    - i. The samples must be representative of all samples collected during the week; and (7-1-93)
    - ii. Geometric mean computations must be calculated and recorded weekly. (7-1-93)
  - b. On an interim basis, pending the addition of secondary treatment, primary effluent must contain fecal coliform concentrations (as determined by multiple-tube fermentation or membrane filter procedures) not exceeding a geometric mean of four hundred/one hundred (400/100) ml with no more than one (1) sample per week exceeding one thousand/one hundred (1,000/100) ml, based on no more than one (1) week's data and a minimum of five (5) samples. (7-1-93)
    - i. The samples must be representative of all samples collected during the week; (7-1-93)
    - ii. Geometric mean computations must be calculated and recorded weekly; and (7-1-93)

iii. This discharge coliform level will not be permitted even on an interim basis where the coliform receiving water quality standard is not being met. (7-1-93)

06. Chlorine Contact Tank Requirements. Chlorine contact tanks providing disinfection must be designed and operated so that: (7-1-93)

a. Short circulating is minimized with thorough mixing of chlorine and waste flow; (7-1-93)

b. Floatable and settleable solids are removed without discharging unchlorinated effluent; and (7-1-93)

c. Unit drains are not discharged into the treated wastewater outfall. (7-1-93)

**421. -- 439. (RESERVED).**

**440. POINT SOURCE NON-SEWAGE WASTEWATER DISCHARGE RESTRICTIONS.**

All provisions and requirements of Section 440 are applicable to non-sewage wastewater treatment facilities and their discharges. (7-1-93)

01. Treatment Requirements. Non-sewage wastewaters discharged into surface waters of the state shall, prior to discharge, be treated to the extent necessary to be consistent with applicable limitations and guidelines published by the Administrator of the EPA in compliance with the Clean Water Act of 1977, as amended (33 USC 1251, et seq.). (7-1-93)

02. Disinfection of Non-sewage Wastewaters. Non-sewage wastewaters discharged into waters of the state, prior to discharge, will be disinfected if they contain or if they might contain pathogenic organisms in concentrations capable of threatening actual or designated uses. (7-1-93)

**441. -- 459. (RESERVED).**

**460. SUBSURFACE SEWAGE OR WASTE DISPOSAL.**

Subsurface sewage or wastewater disposal facilities must be designed and located so that pollutants cannot be reasonably expected to enter water of the state in concentrations resulting in injury to beneficial uses. (8-24-94)

**461. -- 479. (RESERVED).**

**480. WASTE DISPOSAL AND INJECTION WELLS.**

The construction and operation of wastewater injection wells within the state are regulated by the Idaho Department of Water Resources. (7-1-93)

**481. -- 599. (RESERVED).**

**600. LAND APPLICATION OF WASTEWATER(S) OR RECHARGE WATERS.**

Land application of wastewater or recharge waters is subject to the following requirements: (11-20-87)

01. Land Application Permit. Idaho Department of Health and Welfare Rules, Title 01, Chapter 17, "Land Application Permit Rules," require a permit prior to land application of certain types of wastewater. (11-20-87)

02. Applied Waters Restricted to Premises. Wastewater(s) or recharge waters applied to the land surface must be restricted to the premises of the application site unless permission has been obtained from the Department authorizing a discharge into the waters of the state. (7-1-93)

03. Hazard or Nuisance Prohibited. Wastewaters must not create a public health hazard or a nuisance condition. (7-1-93)

04. Monitoring. Provision must be made for monitoring the quality of the ground water in proximity of the application site. The ground water monitoring program is subject to approval by the Department. All data and

reports resulting from the ground water monitoring program must be submitted to the Department upon request. The minimum frequency of monitoring and data submittal will be determined by the Department and in general will be dependent upon: (8-24-94)

- a. The nature and volume of wastewater material or recharge water; (7-1-93)
- b. The frequency and duration of application; and (7-1-93)
- c. The characteristics of the soil mantle on and lithology underlying the application site. (7-1-93)

05. Basis for Evaluation. The evaluation for an approval to irrigate, either by sprinkling or flooding or surface spreading of wastewater material or by burying wastewater material or recharge water in the upper soil horizon as a method of treatment, must include, but will not necessarily be limited to, consideration of the following items: (7-1-93)

a. The type and quantity of wastewater(s) proposed for land application. In general, the wastewater(s) organic constituents are to be biologically degradable and inorganic constituents must be utilized by vegetation or those organisms normally present in the soil. Other wastewater(s) or recharge waters will be considered provided it can be shown that land application will not adversely affect beneficial uses of waters of the state. (7-1-93)

b. The nature of the soils and geologic formations underlying the application site. The entity proposing the activity must provide reasonable assurance that the soils and site geology will provide the required level of treatment and will not allow movement of pollutants into the underlying ground water. (8-24-94)

c. The ability of the soil and vegetative cover on the application site to remove the pollutants contained in the applied waters through the combined processes of consumptive use and biological and chemical inactivation. (7-1-93)

**601. -- 649. (RESERVED).**

**650. SLUDGE USAGE.**

01. Disposal Plans Required. Sludge can be utilized as soil augmentation only in conformance with: (7-1-93)

- a. A Department approved sludge disposal plan; or (7-1-93)
- b. Procedures and in a manner approved by the Department on a site-by-site basis. (7-1-93)

02. Basis for Evaluation. Sludge disposal plans and sludge utilization proposals will be evaluated by the Department in regard to their protection of water quality and public health. (7-1-93)

03. Elements of Plans and Proposals. Plans and proposals must at a minimum provide: (7-1-93)

- a. That only stabilized sludge will be used. (7-1-93)
- b. The criteria utilized for site selection, including: (7-1-93)
  - i. Soil description; (7-1-93)
  - ii. Geological features; (7-1-93)
  - iii. Groundwater characteristics; (7-1-93)
  - iv. Surrounding land use; (7-1-93)
  - v. Topography; and (7-1-93)

- vi. Climate. (7-1-93)
- c. A description of the application process. (7-1-93)
- d. A statement detailing procedures to prevent application which could result in a reduction of soil productivity or in the percolation of excess nutrients. (7-1-93)
- e. Identification of potential adverse health effects in regard to the sludge and its proposed use. (7-1-93)
- f. Delineation of methods or procedures to be used to alleviate or eliminate adverse health effects. (7-1-93)

**651. -- 799. (RESERVED).**

**800. HAZARDOUS AND DELETERIOUS MATERIAL STORAGE.**

Hazardous and deleterious materials must not be stored, disposed of, or accumulated adjacent to or in the immediate vicinity of state waters unless adequate measures and controls are provided to insure that those materials will not enter state waters as a result of high water, precipitation runoff, wind, storage facility failure, accidents in operation, or unauthorized third party activities. (7-1-93)

- 01. Criteria To Be Evaluated. Measures and controls will be judged by the Department on the basis of the following: (7-1-93)
  - a. Potential of a given occurrence; and (7-1-93)
  - b. The potential injury to beneficial uses presented by the nature and quantity of the material and on the physical design of the facility. (7-1-93)
- 02. Delineation of Materials. Such material includes, but is not limited to, trash, rubbish, garbage, oil, gasoline, chemicals, sawdust, and accumulations of manure. (7-1-93)

**801. -- 848. (RESERVED).**

**849. OIL FILLED ELECTRIC EQUIPMENT.**

Releases of Dielectric Oil from oil filled electric equipment are subject to the following requirements: (3-20-97)

- 01. Unauthorized Releases. In the case of an unauthorized release of dielectric oil to state waters or to land such that there is a likelihood that it will enter state waters, the persons in charge must: (3-20-97)
  - a. Stop Continuing Releases. Make every reasonable effort to abate and stop a continuing release. Provided however, that seepage normally associated with oil filled electrical equipment occurring in substations or distribution facilities with restricted access and not causing a threat to waters of the state is not considered a continuing release. (3-20-97)
  - b. Contain Material. Make every reasonable effort to contain released dielectric oil in such a manner that it will not reach surface or ground water of the state. (3-20-97)
  - c. Department Notification Required. Notify the Department or designated agent within forty-eight (48) hours of discovery of any release over twenty-five (25) gallons, or any release causing a threat to waters of the state, from any piece of electrical equipment. (3-20-97)
  - d. Collect, Remove, and Dispose. Collect, remove, and dispose of the released dielectric oil and any contaminated media in a manner approved by the Department. (3-20-97)
  - e. Compliance with Section 852. If collection, removal, and disposal cannot be accomplished within



thirty (30) days after discovery of a release, the persons in charge shall comply with Section 852.. (3-20-97)

02. Applicability. This section applies only to equipment used in the transmission of electricity such as transformers, regulators, reactors, circuit breakers, switch gear and attendant equipment which is filled with mineral insulating oil of a petroleum origin. This section does not pertain to bulk storage of dielectric oil which is not contained in electrical equipment. (3-20-97)

**850. HAZARDOUS MATERIAL SPILLS.**

In the case of an unauthorized release of hazardous materials to state waters or to land such that there is a likelihood that it will enter state waters, the responsible persons in charge must: (7-1-93)

01. Stop Continuing Spills. Make every reasonable effort to abate and stop a continuing spill. (7-1-93)
02. Contain Material. Make every reasonable effort to contain spilled material in such a manner that it will not reach surface or groundwaters of the state. (7-1-93)
03. Department Notification Required. Immediately notify the Department or designated agent of the spills. (7-1-93)
04. Collect, Remove and Dispose. Collect, remove, and dispose of the spilled material in a manner approved by the Department. (7-1-93)

**851. PETROLEUM RELEASE REPORTING, INVESTIGATION, AND CONFIRMATION.**

01. Reporting of Suspected Releases for All Petroleum Storage Tank Systems. Owners and operators of petroleum storage tank (PST) systems shall report to the Department within twenty-four (24) hours and follow the procedures in Subsection 851.03 for any of the following conditions: (7-1-93)

- a. The discovery by owners and operators or others of a petroleum release at the PST site or in the surrounding area other than spills and overfills described in Subsection 851.04, such as the presence of free product or dissolved product in nearby surface water or ground water or vapors in soils, basements, sewer or utility lines. (7-1-93)
- b. Unusual operating conditions observed by owners and operators such as the erratic behavior of product dispensing equipment, the sudden loss of product from the PST system, or an unexplained presence of water in the PST system, unless system equipment is found to be defective but not leaking, and is immediately repaired or replaced. (7-1-93)
- c. Monitoring results from a release detection method that indicate a release may have occurred unless:
  - i. The monitoring device is found to be defective, and is immediately repaired, recalibrated or replaced, and additional monitoring does not confirm the initial result; or (7-1-93)
  - ii. In the case of inventory control, a second month of data does not confirm the initial result. (7-1-93)

02. Investigation Due to Off-Site Impacts. When required by the Department, owners and operators shall follow the procedures in Subsection 851.03 to determine if the PST system is the source of off-site impacts. These impacts include the discovery of petroleum, such as the presence of free product or dissolved product in nearby surface water or ground water or vapors in soils, basements, sewer and utility lines, that has been observed by the Department or brought to its attention by another party. (7-1-93)

03. Release Investigation and Confirmation Steps. Unless corrective action is initiated in accordance with Section 852, owners and operators shall immediately investigate and confirm all suspected releases of petroleum within seven (7) days, or another time period specified by the Department, of discovery and using at least one (1) of the following steps or another procedure approved by the Department: (7-1-93)

a. Owners and operators shall conduct tightness tests that determine whether a leak exists in any portion of the PST system, including the tank, the attached delivery piping, and any connected tanks and piping. All such portions shall be tested either separately or together or in combinations thereof, as required by the Department. (7-1-93)

i. Owners and operators shall repair, replace or upgrade the PST system in accordance with applicable federal, state and local laws, and begin corrective action in accordance with Section 852 if the test results for the system, tank, or delivery piping indicate that a leak exists. (7-1-93)

ii. Further investigation is not required if the test results for the system, tank, and delivery piping do not indicate that a leak exists and if environmental contamination is not the basis for suspecting a release. (7-1-93)

iii. Owners and operators shall conduct a site check as described in Subsection 851.03.b. if the test results for the system, tank, and delivery piping do not indicate that a leak exists but environmental contamination is the basis for suspecting a release. (7-1-93)

b. Owners and operators shall measure for the presence of a release where contamination is most likely to be present. In selecting sample types, sample locations, and measurement methods, owners and operators shall consider the nature of the petroleum, the type of initial alarm or cause for suspicion, the type of backfill, the depth of ground water, and other factors appropriate for identifying the presence and source of the release. Methods of sample collection and sample analysis are subject to Department approval. (7-1-93)

i. If release has occurred, owners and operators shall begin corrective action in accordance with Section 852. (7-1-93)

ii. If test results for the PST system do not indicate that a release has occurred, further investigation is not required. (7-1-93)

04. Reporting and Cleanup of Above Ground Spills and Overfills. Owners and operators shall contain and immediately clean up an above ground spill or overflow of petroleum only after identifying and mitigating any fire, explosion and vapor hazards. (7-1-93)

a. An above ground spill or overflow of petroleum that results in a release that exceeds twenty-five (25) gallons or that causes a sheen on nearby surface water shall be reported to the Department within twenty-four (24) hours and owners and operators shall begin corrective action in accordance with Section 852. (7-1-93)

b. An above ground spill or overflow of petroleum that results in a release that is less than twenty-five (25) gallons and does not cause a sheen on nearby surface water shall be reported to the Department only if cleanup cannot be accomplished within twenty-four (24) hours. (7-1-93)

## 852. PETROLEUM RELEASE RESPONSE AND CORRECTIVE ACTION.

01. Release Response. Upon confirmation of a petroleum release in accordance with Section 851 or after a release from the PST system is identified in any other manner, owners and operators shall perform the following initial response actions within twenty-four (24) hours: (7-1-93)

a. Identify and mitigate fire, explosion and vapor hazards; (7-1-93)

b. Take immediate action to prevent any further release of petroleum into the environment; and (7-1-93)

c. Report the release to the Department. (7-1-93)

02. Initial Abatement Measures. Unless directed to do otherwise by the Department, owners and operators shall perform the following abatement measures: (7-1-93)

a. Remove as much of the petroleum from the leaking PST system as is necessary to prevent further

- release to the environment; (7-1-93)
- b. Visually inspect any above ground releases or exposed below ground releases and prevent further migration of the released substance into surrounding soils, surface water and ground water; (7-1-93)
  - c. Continue to monitor and mitigate any additional fire and safety hazards posed by vapors or free product that have migrated from the PST site and entered into subsurface structures such as sewers or basements; (7-1-93)
  - d. Remedy hazards posed by contaminated soils that are excavated or exposed as a result of release confirmation, site investigation, abatement, or corrective action activities. If these remedies include treatment or disposal of soils, the owner and operator shall comply with applicable state and local requirements. (7-1-93)
03. Initial Site Characterization. Unless directed to do otherwise by the Department, owners and operators shall assemble information about the site and the nature of the release, including information gained while confirming the release or completing the initial abatement measures in Subsection 852.02. This information shall include, but is not necessarily limited to the following: (7-1-93)
- a. Data on the nature and estimated quantity of release; (7-1-93)
  - b. Data from available sources and/or site investigations concerning the following factors: surrounding populations, water quality, use and approximate location of wells potentially affected by the release, subsurface soil condition, locations of subsurface sewers, climatological conditions and land use; and (7-1-93)
  - c. Data from measurements that assess the site for the presence of petroleum contamination including: (7-1-93)
    - i. Measurements for the presence of a release where contamination is most likely to be present, unless the presence and source of the release have been confirmed in accordance with the site check required by Subsection 851.03.b. or the closure site assessments required by applicable federal, state, or local laws. Sample types, sample locations and analytical methods are subject to Department approval and shall be based on consideration of the nature of the petroleum, the type of backfill, depth to ground water and other factors appropriate for identifying the presence and source of the release; and (7-1-93)
    - ii. Measurements to determine the presence of free product. (7-1-93)
  - d. Within forty-five (45) days of release confirmation, or another time specified by the Department, owners and operators shall submit the information collected in compliance with Subsection 852.03 to the Department in a manner that demonstrates its applicability and technical adequacy to be reviewed as follows: (7-1-93)
    - i. If the Department determines that the information shows that no further corrective action is required, owners and operators shall be notified accordingly. (7-1-93)
    - ii. If the Department determines that the information shows petroleum contamination is limited to soils, owners and operators shall treat or dispose of contaminated soils in accordance with Department guidelines, and need not perform any further corrective action. (7-1-93)
    - iii. If the Department determines that the information shows that any of the conditions in Subsections 852.05.a. through 852.05.c. exist, owners and operators shall comply with the requirements in Subsections 852.04 through 852.07. (7-1-93)
04. Free Product Removal. At sites where investigations under Subsection 852.03.c.ii. indicate the presence of free product, owners and operators shall remove free product to the maximum extent practicable as determined by the Department while continuing, as necessary, any actions initiated under Subsections 852.01 through 852.03 or preparing for actions required under Subsections 852.05 and 852.06. In meeting the requirements of Subsection 852.04, owners and operators shall: (7-1-93)

- a. Conduct free product removal in a manner that minimizes the spread of contamination into previously uncontaminated areas by using recovery and disposal techniques appropriate to the hydrogeologic conditions at the site, and that properly treats, discharges or disposes of recovery by-products in compliance with applicable local, state and federal regulations; (7-1-93)
- b. Use abatement of free product migration as a minimum objective for the design of the free product removal system; (7-1-93)
- c. Handle any flammable products in a safe and competent manner to prevent fires or explosions; and (7-1-93)
- d. Unless directed to do otherwise by the Department, prepare and submit to the Department for review and approval, within forty-five (45) days after confirming a release, a free product removal report that provides at least the following information: (7-1-93)
- i. The name of the person(s) responsible for implementing the free product removal measures; (7-1-93)
- ii. The estimated quantity, type and thickness of free product observed or measured in wells, boreholes, and excavations; (7-1-93)
- iii. The type of free product recovery system used; (7-1-93)
- iv. Whether any discharge will take place on-site or off-site during the recovery operation and where this discharge will be located; (7-1-93)
- v. The type of treatment applied to, and the effluent quality expected from, any discharge; (7-1-93)
- vi. The steps that have been or are being taken to obtain necessary permits for any discharge; and (7-1-93)
- vii. The disposition of the recovered free product. (7-1-93)
05. Investigations for Soil and Water Cleanup. If any of the conditions in Subsections 852.05.a. through 852.05.c. exist, and unless directed to do otherwise by the Department, owners and operators shall notify the Department and conduct investigations in accordance with Subsection 852.05.d. of the release, the release site, and the surrounding area possibly affected by the release in order to determine the full extent and location of soils contaminated by the petroleum release and the presence and concentrations of dissolved product contamination in the ground water or surface water: (7-1-93)
- a. There is evidence that ground water or surface water has been affected by the release such as found during release confirmation or previous corrective action measures; (7-1-93)
- b. Free product is found to need recovery in compliance with Subsection 852.04; (7-1-93)
- c. There is evidence that contaminated soils may affect nearby ground water, surface water or the public health and have not been treated or disposed of in accordance with Subsection 852.03.d.ii. (7-1-93)
- d. Unless determined otherwise by the Department, investigations conducted under this Subsection, 852.05, shall include, but are not necessarily limited to the following: (7-1-93)
- i. The physical and chemical characteristics of the petroleum product including its toxicity, persistence, and potential for migration; (7-1-93)
- ii. The type and age of the PST system, inventory loss, and type of containment failure; (7-1-93)
- iii. The hydrogeologic characteristics of the release site and the surrounding area; (7-1-93)

- iv. The background concentrations of contaminants in soil, surface water and ground water; (7-1-93)
  - v. A site drawing, showing boring and monitoring well locations, nearby structures, under ground utilities, drainage ditches, streams, suspected locations of leakage, direction of ground water flow, and any domestic or irrigation wells within a one-fourth (1/4) mile radius of the site; (7-1-93)
  - vi. Information on ownership and use of any well identified pursuant to Subsection 852.05.d.v.; (7-1-93)
  - vii. Site borings and well logs and rationale for choosing drilling locations, and a description of methods and equipment used for all water and soil sampling; (7-1-93)
  - viii. A description of contaminant stratigraphy with accompanying geologic cross-section drawings; (7-1-93)
  - ix. A demonstration and description of the horizontal and vertical extent of contamination, free product thickness, modes and rate of contaminant transport, and concentrations of dissolved constituents in surface water and ground water; (7-1-93)
  - x. The potential effects of residual contamination on nearby surface water and ground water; and (7-1-93)
  - xi. A discussion of laboratory analytical methods and information pertaining to laboratory certification. (7-1-93)
  - e. Owners and operators shall submit the information collected in investigating the release site in compliance with Subsection 852.05 for the Department's review and approval in accordance with a schedule established by the Department as provided in Subsection 852.07. (7-1-93)
06. Corrective Action Plan. At any point after reviewing the information submitted in compliance with Subsections 852.01 through 852.05, the Department may require owners and operators to submit additional information or to develop and submit a corrective action plan for responding to contaminated soils, surface water and ground water. If a plan is required, owners and operators shall submit the plan according to a schedule and criteria established by the Department as provided in Subsection 852.07. Alternatively, owners and operators may, after fulfilling the requirements of Subsections 852.01 through 852.05, choose to submit a corrective action plan for responding to contaminated soil, surface water and ground water. In either case, owners and operators are responsible for submitting a plan that provides for adequate protection of human health and the environment as determined by the Department, and shall modify their plan as necessary to meet the Department's standards. (7-1-93)
- a. The Department will approve the corrective action plan only after ensuring that implementation of the plan will adequately protect human health and the environment. In making this determination, the Department should consider the following factors as appropriate: (7-1-93)
    - i. The maximum contaminant levels for drinking water or other health-based levels for water and soil which consider the potential exposure pathway of the petroleum product; (3-18-94)
    - ii. The physical and chemical characteristics of the petroleum product including its toxicity, persistence, and potential for migration; (7-1-93)
    - iii. The hydrogeologic characteristics of the release site and the surrounding area; (7-1-93)
    - iv. The proximity, quality, and current and future uses of nearby surface water and ground water; (7-1-93)
    - v. The potential effects of residual contamination on nearby surface water and ground water; and (7-1-93)

- vi. Other information assembled in compliance with Section 851. (7-1-93)
- b. Upon approval of the corrective action plan or as directed by the Department, owners and operators shall implement the plan including modification to the plan made by the Department. Owners and operators shall monitor, evaluate, and report the results of implementing the plan in accordance with a schedule and criteria established by the Department as provided in Subsection 852.07. (7-1-93)
- c. Owners and operators may, in the interest of minimizing environmental contamination and promoting more effective cleanup, begin cleanup of soil, surface water, and ground water before the corrective action plan is approved provided that they: (7-1-93)
  - i. Notify the Department of their intention to begin cleanup; (7-1-93)
  - ii. Comply with any conditions imposed by the Department, including halting cleanup or mitigating adverse consequences from cleanup activities; and (7-1-93)
  - iii. Incorporate these self-initiated cleanup measures in the corrective action plan that is submitted to the Department for approval. (7-1-93)
- 07. Compliance. If the Department determines that any of the conditions in 852.05.a. through 852.05.c. exist, owners and operators shall be given an opportunity to enter into a consent order with the Department. (7-1-93)
  - a. The Department shall send owners and operators a consent order that sets forth at least the following: (7-1-93)
    - i. A schedule for owners and operators to submit the information collected in investigating the release site in compliance with Subsection 852.05. (7-1-93)
    - ii. A schedule for owners and operators to submit, and a criteria for, a corrective action plan in compliance with Subsection 852.06. (7-1-93)
    - iii. A schedule for the Department to review, modify, and approve the site release investigation and corrective action plan. (7-1-93)
    - iv. A schedule and criteria for owners and operators to implement a corrective action plan, and monitor, evaluate, and report the results of implementing the corrective action plan. (7-1-93)
  - b. Owners and operators shall be given thirty (30) days from receipt of the consent order in which to reach an agreement with the Department regarding the terms of the consent order. (7-1-93)
  - c. If owners and operators cannot reach an agreement with the Department within thirty (30) days, the Department shall establish a schedule and criteria with which owners and operators shall comply in order to meet the requirements of Subsections 852.05 and 852.06. (7-1-93)

**853. -- 899. (RESERVED).**

**900. GAS SUPERSATURATION.**

- 01. Applicability of Gas Supersaturation Standard. The Director has the following authority: (7-1-93)
  - a. To specify the applicability of the gas supersaturation standard with respect to excess stream flow conditions; and (7-1-93)
  - b. To direct that all known and reasonable measures be taken to assure protection of the fishery resource; and (7-1-93)

c. To require that operational procedures or project modifications proposed for compliance for dissolved gas criterion do not contribute to increased mortalities to juvenile migrants or impose serious delays to adult migrant fishes. (7-1-93)

02. Interstate Agreements. In making determinations as to the applicability of gas supersaturation standards, the Director can seek and enter into agreements with adjoining state environmental regulatory agencies. (7-1-93)

03. Gas Supersaturation Control Program. Owners or operators of proposed water impoundment facilities subject to excessive spilling which can result in supersaturated water conditions must submit to the Department for approval a program for the detection and control of gas supersaturation. The program must include, but is not limited to: (7-1-93)

a. Time schedules for construction or installation of supersaturation control features and devices; and (7-1-93)

b. When required by the Department, a monitoring and reporting system insuring that supersaturated conditions are detected and reported to the Department. (7-1-93)

**901. -- 994. (RESERVED).**

**995. INCORPORATION BY REFERENCE.**

Codes, standards and regulations may be incorporated by reference in these rules pursuant to Section 67-5229, Idaho Code. Such incorporation by reference shall constitute full adoption by reference, including any notes or appendices therein, unless expressly provided otherwise in these rules. Copies of the codes, standards or regulations adopted by reference throughout these rules are available in the following locations: (8-24-94)

01. Department. The Administrative Procedure Section, Idaho Department of Health and Welfare Central Office, 450 W. State Street, Boise, Idaho 83720; (7-1-93)

02. Law Library. State Law Library, 451 W. State Street, Boise, Idaho 83720. (7-1-93)

03. Federal Documents. Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. (8-24-94)

**996. ADMINISTRATIVE PROVISIONS.**

Contested case appeals shall be governed by Idaho Department of Health and Welfare Rules, IDAPA 16, Title 05, Chapter 03, Sections 16.05.03.000 et seq., "Rules Governing Contested Cases and Declaratory Rulings." (7-1-93)

**997. CONFIDENTIALITY OF RECORDS.**

Any disclosure of information obtained by the Department is subject to the restrictions contained in Idaho Department of Health and Welfare Rules, IDAPA 16, Title 05, Chapter 01, "Rules Governing the Protection and Disclosure of Department Records." (7-1-93)

**998. INCLUSIVE GENDER AND NUMBER.**

For the purposes of these rules, words used in the masculine gender include the feminine, or vice versa, where appropriate. (7-1-93)

**999. SEVERABILITY.**

Idaho Department of Health and Welfare Rules, IDAPA 16, Title 01, Chapter 02, are severable. If any rules, or part thereof, or the application of such rule to any person or circumstance is declared invalid, that invalidity does not affect the validity of any remaining portion of this chapter. (7-1-93)