

ENVIRONMENTAL QUALITY

CHAPTER 30

WATER QUALITY

Subchapter 6

Surface Water Quality Standards and Procedures

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Subchapter 6

Surface Water Quality Standards and Procedures

17.30.601 POLICY (1) The following standards are adopted to conserve water by protecting, maintaining, and improving the quality and potability of water for public water supplies, wildlife, fish and aquatic life, agriculture, industry, recreation, and other beneficial uses. (History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; TRANS, from DHES, 1996 MAR p. 1499.)

17.30.602 DEFINITIONS In this subchapter the following terms have the meanings indicated below and are supplemental to the definitions given in 75-5-103, MCA:

- (1) "Bioconcentrating parameters" means the parameters listed in department Circular DEQ-7 which have a bioconcentration factor greater than 300.
- (2) "Carcinogenic parameters" means the parameters categorized as carcinogens in department Circular DEQ-7.
- (3) "Chlorophyll a" means the mass of chlorophyll a pigment after correction for phaeophytins.
- (4) "Conduit" means any artificial or natural duct, either open or closed, capable of conveying liquids or pollutants.
- (5) "Conventional water treatment" means in order of application the processes of coagulation, sedimentation, filtration, and disinfection. If determined necessary by the department it also includes taste and odor control and lime softening.
- (6) "Dewatered stream" means a perennial or intermittent stream from which water has been removed for one or more beneficial uses.
- (7) "Electrical conductivity (EC)" means the ability of water to conduct an electrical current at 25°C. The electrical conductivity of water represents the amount of total dissolved solids in the water and is expressed as microSiemens/centimeter ($\mu\text{S}/\text{cm}$) or micromhos/centimeter ($\mu\text{mhos}/\text{cm}$) or equivalent units and is corrected to 25°C.
- (8) "Discharge" means the injection, deposit, dumping, spilling, leaking, placing, or failing to remove any pollutant so that it or any constituent thereof may enter into state waters, including ground water.
- (9) "EPA" means the US Environmental Protection Agency.
- (10) "Ephemeral stream" means a stream or part of a stream which flows only in direct response to precipitation in the immediate watershed or in response to the melting of a cover of snow and ice and whose channel bottom is always above the local water table.
- (11) "Geometric mean" means the value obtained by taking the Nth root of the product of the measured values where zero values for measured values are taken to be the detection limit.
- (12) "Harmful parameters" means parameters listed as harmful in department Circular DEQ-7.

(13) "Intermittent stream" means a stream or reach of a stream that is below the local water table for at least some part of the year, and obtains its flow from both surface run-off and ground water discharge.

(14) "Mixing zone" is defined in 75-5-103, MCA, and also means a limited area of a surface water body or a portion of an aquifer, where initial dilution of a discharge takes place and where water quality changes may occur and where certain water quality standards may be exceeded.

(15) "MPDES" means the Montana pollutant discharge elimination system.

(16) "NPDES" means the national pollutant discharge elimination system.

(17) "Naturally occurring" means conditions or material present from runoff or percolation over which man has no control or from developed land where all reasonable land, soil and water conservation practices have been applied. Conditions resulting from the reasonable operation of dams in existence as of July 1, 1971, are natural.

(18) "Nonpoint source" means the source of pollutants which originates from diffuse runoff, seepage, drainage, or infiltration.

(19) "Outstanding resource water" or "ORW" has the meaning set out in 75-5-103, MCA.

(20) "Pesticide" means insecticides, herbicides, rodenticides, fungicides, or any substance or mixture of substances intended for preventing, destroying, controlling, repelling, altering life processes, or mitigating any insects, rodents, nematodes, fungi, weeds, and other forms of plant or animal life.

(21) "Phaeophytins" means the degradation products of chlorophyll.

(22) "Pollutants" means sewage, industrial wastes, and other wastes as those terms are defined in 75-5-103, MCA.

(23) "Reasonable land, soil, and water conservation practices" means methods, measures, or practices that protect present and reasonably anticipated beneficial uses. These practices include, but are not limited to, structural and nonstructural controls and operation and maintenance procedures. Appropriate practices may be applied before, during, or after pollution-producing activities.

(24) "Seasonal lake or pond" means a natural depression in the land surface that periodically holds water from precipitation or snow and ice melt in the immediate watershed.

(25) "Sodium adsorption ratio (SAR)" means a value representing the relative amount of sodium ions to the combined amount of calcium and magnesium ions in water using the following formula: $SAR = [Na]/(([Ca]+[Mg])/2)^{1/2}$, where all concentrations are expressed as milliequivalents of charge per liter.

(26) "Secondary contact recreation" means activities in or on the water where the potential for immersion or ingestion of water is low, such as wading or boating.

(27) "Sediment" means solid material settled from suspension in a liquid; mineral or organic solid material that is being transported or has been moved from its site of origin by air, water, or ice and has come to rest on the earth's surface, either above or below sea level; or inorganic or organic particles originating from weathering, chemical precipitation, or biological activity.

(28) "Semi-permanent lake or pond" means a natural depression in the land surface, not including reservoirs, that receives ground water in addition to precipitation runoff from the immediate watershed, and occasionally goes dry.

(29) "Settleable solids" means inorganic or organic particles that are being transported or have been transported by water from the site or sites of origin and are settled or are capable of being settled from suspension.

(30) "Sewer" means a pipe or conduit that carries wastewater or drainage water.

(31) "Surface waters" means any waters on the earth's surface including, but not limited to, streams, lakes, ponds, and reservoirs; and irrigation and drainage systems discharging directly into a stream, lake, pond, reservoir, or other surface water. Water bodies used solely for treating, transporting, or impounding pollutants shall not be considered surface water.

(32) "Storm sewer" or "storm drain" means a pipe or conduit that carries storm water and surface water and street washings.

(33) "Total nitrogen" means the sum of all nitrate, nitrite, ammonia, and organic nitrogen, as N, in an unfiltered water sample. Total nitrogen in a sample may also be determined by the persulfate digestion or as the sum of total kjeldahl nitrogen plus nitrate plus nitrite.

(34) "Total phosphorus" means the sum of orthophosphates, polyphosphates, and organically bound phosphates, as P, in an unfiltered water sample. Total phosphorus may also be determined directly by persulfate digestion.

(35) "Toxic parameters" means those parameters listed as toxins in department Circular DEQ-7.

(36) "True color" means the color of water from which the turbidity has been removed.

(37) "Turbidity" means a condition in water or wastewater caused by the presence of suspended matter resulting in the scattering and absorption of light rays.

(38) "Use attainability analysis" means a scientific assessment and analysis of the factors affecting the attainment of a use(s). Information that may be used include chemical, physical and biological data, as well as photo documentation and comparison to reference conditions, that are of sufficient detail to accurately portray the level and potential level of use support of a waterbody. The use attainability analysis is required by the US EPA according to 40 CFR 131.10(g), (h) and (j).

(39) "DEQ-7" means the department circular that is adopted and incorporated by reference in ARM 17.30.619 and is entitled "Montana Numeric Water Quality Standards." This circular establishes water quality standards for toxic, carcinogenic, bioconcentrating, radioactive, and harmful parameters, and also establishes human health-based water quality standards for the following specific nutrients with toxic effects:

- (a) nitrate;
- (b) nitrate + nitrite; and
- (c) nitrite.

(40) "DEQ-12A" means the department circular that is adopted and incorporated by reference in ARM 17.30.619 and is entitled "Montana Base Numeric Nutrient Standards." This circular contains numeric water quality standards for total nitrogen and total phosphorus in surface waters.

(41) "DEQ-12B" means the department circular that is adopted and that is entitled "Montana Base Numeric Nutrient Standards Variances." This circular describes procedures for receiving a variance from the standards and will document recipients of individual variances. (History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, 75-5-313, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; AMD, 1988 MAR p. 1191, Eff. 6/10/88; AMD, 1988 MAR p. 2221, Eff. 10/14/88; AMD, 1992 MAR p. 2064, Eff. 9/11/92; AMD, 1994 MAR p. 2136, Eff. 8/12/94; AMD, 1995 MAR p. 1798, Eff. 9/15/95; AMD, 1996 MAR p. 555, Eff. 2/23/96; TRANS, from DHES, 1996 MAR p. 1499; AMD, 1999 MAR p. 94, Eff. 1/15/99; AMD, 1999 MAR p. 2257, Eff. 10/8/99; AMD, 1999 MAR p. 2275, Eff. 10/8/99; AMD, 2002 MAR p. 387, Eff. 2/15/02; AMD, 2002 MAR p. 2196, Eff. 8/16/02; AMD, 2003 MAR p. 779, Eff. 4/25/03; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2012 MAR p. 2060, Eff. 10/12/12; AMD, 2014 MAR p. 1815, Eff. 8/8/14.)

17.30.603 APPLICATION AND COMPOSITION OF SURFACE WATER QUALITY STANDARDS (1) The standards in this subchapter are adopted to establish maximum allowable changes in surface water quality and to establish a basis for limiting the discharge of pollutants which affect prescribed beneficial uses of surface waters.

(2) The surface water quality standards are composed of all rules of this subchapter.

(3) The provisions of ARM 17.30.635 through 17.30.637, 17.30.640, 17.30.641, 17.30.645, and 17.30.646 apply to all surface waters unless they conflict with ARM 17.30.620 through 17.30.629 in which case the requirements of ARM 17.30.620 through 17.30.629 prevail.

(4) The standards of this subchapter are applicable where these standards are or would be violated by discharges to ground water. (History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; AMD, 1992 MAR p. 2064, Eff. 9/11/92; TRANS, from DHES, 1996 MAR p. 1499.)

Rules 17.30.604 and 17.30.605 reserved

17.30.606 STREAM CLASSIFICATION (1) Before streams are classified or standards established or modified, the board shall hold a public hearing.

(a) Notice of the hearing specifying the waters concerned and the classification, standards or modification of them shall be published at least once a week for three consecutive weeks in a daily newspaper of general circulation in the area affected.

(b) Notice shall also be mailed directly to persons the department believes may be affected by the proposed action.

(c) The water pollution control advisory council shall be given not less than 30 days prior to first publication to comment on the proposed action.

(d) The general rules of procedure found in ARM 17.4.101 relating to rulemaking will be followed. (History: 75-5-201, MCA; IMP, 75-5-307, MCA; Eff. 12/31/72; TRANS, from DHES, 1996 MAR p. 1499.)

17.30.607 WATER-USE CLASSIFICATIONS--CLARK FORK COLUMBIA RIVER DRAINAGE EXCEPT THE FLATHEAD AND KOOTENAI RIVER DRAINAGES

(1) The water-use classifications adopted for the Clark Fork of the Columbia River drainage are as follows:

- (a) Clark Fork River drainage except waters listed in (1)(a)(i) through (xv) B-1
 - (i) Warm Springs drainage to Meyer's Dam near Anaconda A-1
 - (ii) Hearst Lake drainage to the Lower Hearst Inlet (approximately at latitude 46.1013, longitude -113.0665) and Fifer Gulch drainage to the Anaconda city limits. (Anaconda municipal water supply) A-Closed
 - (iii) Silver Bow Creek (mainstem) from the confluence of Blacktail Creek to Warm Springs Creek I
(The concentrator tailings pond and Silver Bow Creek drainage from this pond downstream to Blacktail Creek and the tailings ponds at Warm Springs have no classification.)
 - (iv) Yankee Doodle Creek drainage to and including Moulton reservoir (approximately at latitude 46.0901, longitude -112.5092) A-Closed
 - (v) Basin Creek drainage to and including the South Butte water supply reservoir (approximately at latitude 45.8543, longitude -112.5454) A-Closed
 - (vi) Clark Fork River (mainstem) from Warm Springs Creek to Cottonwood Creek (near Deer Lodge) C-2
 - (vii) Clark Fork River (mainstem) from Cottonwood Creek to the Little Blackfoot River C-1
 - (viii) Tin Cup Joe Creek drainage to the Deer Lodge water supply intake (approximately at latitude 46.3892, longitude -112.8543) A-Closed
 - (ix) Georgetown Lake and tributaries above Georgetown Dam (headwaters of Flint Creek drainage) A-1

- (x) Fred Burr Lake and headwaters from source to the outlet of the lake (Philipsburg water supply at approximate latitude 46.3096, longitude -113.1746) A-Closed
- (xi) South Boulder Creek drainage to the Philipsburg water supply intake (approximately at latitude 46.3447, longitude -113.2266) A-1
- (xii) Rattlesnake Creek drainage to the Missoula water supply intake (approximately at latitude 46.9149, longitude -113.9638) A-Closed
- (xiii) Packer and Silver Creek drainage (tributaries to the St. Regis River) to the Saltese water supply intake A-1
- (xiv) Ashley Creek drainage to the Thompson Falls water supply intake (approximately at latitude 47.6066, longitude -115.3) A-Closed
- (xv) Pilgrim Creek drainage to the Noxon water supply intake (approximately at latitude 47.9906, longitude -115.7747) A-1
(History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; AMD, 1988 MAR p. 1191, Eff. 6/10/88; AMD, 1994 MAR p. 3099, Eff. 12/9/94; TRANS, from DHES, 1996 MAR p. 1499; AMD, 2002 MAR p. 387, Eff. 2/15/02; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2017 MAR p. 602, Eff. 5/13/17.)

17.30.608 WATER-USE CLASSIFICATIONS--FLATHEAD RIVER

DRAINAGE (1) The water-use classifications adopted for the Flathead River are as follows:

- (a) Flathead River drainage above Flathead Lake except waters listed in (1)(a)(i) through (viii) B-1
- (i) Essex Creek drainage to the Essex water supply intake (approximately at latitude 48.2668, longitude -113.639) A-Closed
- (ii) Stillwater River (mainstem) from Logan Creek to the Flathead River B-2
- (iii) Whitefish Lake and its tributaries A-1
- (iv) Whitefish River (mainstem) from the outlet of Whitefish Lake to the Stillwater River B-2
- (v) Haskill Creek drainage to the Whitefish water supply intake (approximately at latitude 48.4584, longitude -114.3054) A-1
- (vi) Ashley Creek (mainstem) from Smith Lake to bridge crossing on the airport road about one mile south of Kalispell B-2
- (vii) Ashley Creek (mainstem) from bridge crossing on airport road to the Flathead River C-2
- (viii) The mainstems of the north and middle forks of the Flathead River above their junction A-1

- (b) Flathead Lake north of the Flathead Indian Reservation and waters of its tributaries from Flathead River inlet to U.S. Highway 93 bridge at Polson that lie outside of the Flathead Indian Reservation boundary except Swan River as listed in (1)(b)(i), but including Swan Lake proper and Lake Mary Ronan proper A-1
 - (i) Swan River drainage (except Swan Lake proper) B-1
 - (c) Waters outside of the Flathead Indian Reservation that are tributary to the Flathead River drainage below the highway bridge at Polson to confluence with Clark Fork River except the Little Bitterroot River mainstem listed in (1)(c)(i) and including the Flathead River drainage west of the Flathead Indian Reservation boundary B-1
 - (i) Little Bitterroot River (mainstem) from Hubbart Reservoir dam to the Flathead Indian Reservation boundary B-2
 (History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; AMD, 1982 MAR p. 1745, Eff. 10/1/82; AMD, 1984 MAR p. 1802, Eff. 12/14/84; AMD, 1988 MAR p. 1191, Eff. 6/10/88; TRANS, from DHES, 1996 MAR p. 1499; AMD, 2002 MAR p. 387, Eff. 2/15/02; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2017 MAR p. 602, Eff. 5/13/17.)

17.30.609 WATER-USE CLASSIFICATIONS--KOOTENAI RIVER

DRAINAGE (1) The water-use classifications adopted for the Kootenai River are as follows:

- (a) All waters except those listed in (1)(a)(i) through (iv) B-1
 - (i) Deep Creek drainage (tributary to the Tobacco River) to the Fortine water supply intake (approximately at latitude 48.7631, longitude -114.8980) A-1
 - (ii) Rainy Creek drainage to the W.R. Grace Company water supply intake (approximately at latitude 48.4485, longitude -115.4203) A-1
 - (iii) Rainy Creek (mainstem) from the W.R. Grace Company water supply intake (approximately at latitude 48.4485, longitude -115.4203) to the Kootenai River C-1
 - (iv) Flower Creek drainage to the Libby water supply intake (approximately at latitude 48.356, longitude -115.5676) A-1
 (History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; TRANS, from DHES, 1996 MAR p. 1499; AMD, 2002 MAR p. 387, Eff. 2/15/02; AMD, 2017 MAR p. 602, Eff. 5/13/17.)

17.30.610 WATER-USE CLASSIFICATIONS--MISSOURI RIVER DRAINAGE EXCEPT YELLOWSTONE, BELLE FOURCHE, AND LITTLE MISSOURI RIVER DRAINAGES

(1) The water-use classifications adopted for the Missouri River are as follows:

- (a) Missouri River drainage to and including the Sun River drainage except tributaries listed in (1)(a)(i) through (xiii)..... B-1
 - (i) East Gallatin River (mainstem) from Montana Highway No. 411 (Spring Hill Road, approximately at latitude 45.7256, longitude -111.0666) crossing to Dry Creek about five miles east of Manhattan..... B-2
 - (ii) Lyman Creek (approximately at latitude 45.7305, longitude -110.9839) and Sourdough (Bozeman) Creek (approximately at latitude 45.5987, longitude -111.0266) drainages to the Bozeman water supply intakes A-Closed
 - (iii) Hyalite Creek drainage to the Bozeman water supply intake (approximately at latitude 45.5618, longitude -111.0709)..... A-1
 - (iv) Big Hole River drainage to Butte Water Company intake (approximately at latitude 45.7645, longitude -112.7872) above Divide A-1
 - (v) Rattlesnake Creek drainage to the Dillon water supply intake (approximately at latitude 45.2442, longitude -112.7953) A-1
 - (vi) Indian Creek drainage to the Sheridan water supply intake (approximately at latitude 45.4787, longitude -112.1592) A-1
 - (vii) Basin Creek drainage to the Basin water supply intake (approximately at latitude 46.2820, longitude -112.2730)..... A-1
 - (viii) McClellan Creek drainage to the East Helena water supply intake (approximately at latitude 46.551, longitude -111.8964)..... A-1
 - (ix) Prickly Pear Creek (mainstem) from the Montana Highway No. 433 crossing about one mile northwest of East Helena to Lake Helena I
 - (x) Ten Mile Creek drainage to the Helena water supply intake (approximately at latitude 46.5731, longitude -112.2145)..... A-1
 - (xi) Willow Creek drainage to the White Sulphur Springs water supply intake (approximately at latitude 46.5191, longitude -110.8119)..... A-Closed
 - (xii) Muddy Creek mainstem (tributary of Sun River) I
 - (xiii) Sun River (mainstem) from Muddy Creek to the Missouri River..... B-3
- (b) Missouri River drainage from Sun River to Rainbow Dam..... B-2
- (c) Missouri River drainage from Rainbow Dam in Great Falls to the Marias River except waters listed in (1)(c)(i) through (iv) B-3
 - (i) Belt Creek drainage to and including Otter Creek drainage except portion of O'Brien Creek listed in (1)(c)(i)(A)..... B-1
 - (A) O'Brien Creek drainage to the Neihart water supply intake (approximately at latitude 46.9147, longitude -110.7322) A-1
 - (ii) Belt Creek (mainstem) from Otter Creek to the Missouri River B-2
 - (iii) Tributaries to Belt Creek from Otter Creek to the Missouri River B-1
 - (iv) Highwood and Shonkin Creek drainages..... B-1

(d) Marias River drainage except waters on the Blackfeet Indian Reservation and the tributaries and segments listed in (1)(d)(i) through (vi)	B-2
(i) Cutbank Creek drainage except waters listed in (1)(d)(i)(A)	B-1
(A) Cutbank Creek (mainstem) from Old Maids Coulee near Cut Bank to Two Medicine Creek.....	B-2
(ii) Two Medicine Creek drainage to the Blackfeet Indian Reservation boundary except for the waters listed in (1)(d)(ii)(A) and (B)	B-1
(A) Midvale Creek drainage to the Blackfeet Indian Reservation boundary	A-Closed
(B) Summit Creek drainage to the Summit water supply intake (approximately at latitude 48.3184, longitude -113.3527).....	A-Closed
(iii) Dry Fork Marias River (mainstem) from Highway 91 crossing near Conrad to Marias River and all adjoining tributaries	B-3
(iv) Teton River drainage to and including Deep Creek near Choteau.....	B-1
(v) Marias River mainstem from Tiber Dam to the county road crossing in section 11, T29N, R5E	B-1
(vi) Teton River below Interstate 15	B-3
(e) Missouri River drainage from Marias River to Fort Peck Dam except waters listed in (1)(e)(i) through (v).....	C-3
(i) Missouri River (mainstem) from Marias River to Fort Peck Dam	B-3
(ii) Eagle Creek drainage to but excluding Dog Creek	B-1
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(g) Milk River drainage from the International Boundary to the Missouri River except waters within tribal boundaries and the tributaries listed in (1)(g)(i) through (iv)..... B-3

(i) Sage Creek drainage to the section line between sections 1 and 12 T36N R5E..... B-1

(ii) Big Sandy Creek drainage from the Rocky Boy's Indian Reservation boundary to Town of Big Sandy infiltration wells (approximately at latitude 48.1831, longitude -110.0851)..... B-1

(iii) Beaver, Little Box Elder and Clear Creek (drainage near Havre)..... B-1

(iv) Peoples Creek drainage and the South Fork of Peoples Creek drainage except waters within the Fort Belknap Indian Reservation B-1

(h) Missouri River drainage from Milk River to North Dakota boundary except tribal waters and waters listed in (1)(h)(i) through (iii) C-3

(i) Missouri River (mainstem) from Milk River to North Dakota boundary ... B-3

(ii) Antelope Creek drainage near Antelope B-3

(iii) Poplar River drainage to the Fort Peck Indian Reservation boundary B-2

(History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; AMD, 1982 MAR p. 1745, Eff. 10/1/82; AMD, 1984 MAR p. 1802, Eff. 12/14/84; AMD, 1988 MAR p. 1191, Eff. 6/10/88; TRANS, from DHES, 1996 MAR p. 1499; AMD, 1998 MAR p. 2489, Eff. 9/11/98; AMD, 2002 MAR p. 1314, Eff. 2/15/02; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2008 MAR p. 948, Eff. 5/9/08; AMD, 2017 MAR p. 602, Eff. 5/13/17.)

17.30.611 WATER-USE CLASSIFICATION--YELLOWSTONE RIVER

DRAINAGE (1) The water-use classifications adopted for the Yellowstone River are as follows:

- (a) Yellowstone River drainage to the Laurel water supply intake (approximately at latitude 45.6545, longitude -108.7590) B-1
- (b) Yellowstone River drainage from the Laurel water supply intake (approximately at latitude 45.6545, longitude -108.7590) to the Billings water supply intake (approximately at latitude 45.7745, longitude -108.4778) except waters on the Crow Indian Reservation and the tributaries listed in (1)(b)(i) through (iii)..... B-2
 - (i) Clarks Fork of the Yellowstone River drainage from source up to and including Jack Creek near Bridger..... B-1
 - (ii) Mainstem of the Clarks Fork of the Yellowstone River from Jack Creek to the Yellowstone River..... B-2
 - (iii) Tributaries to the Clarks Fork Yellowstone River from Jack Creek to the Yellowstone River except the portion of West Fork of Rock Creek listed in (1)(b)(iii)(A) B-1
 - (A) West Fork of Rock Creek drainage to the Red Lodge water supply intake (approximately at latitude 45.1593, longitude -109.2779) A-1
- (c) Yellowstone River drainage from the Billings water supply intake to the North Dakota state line excluding waters on the Crow Indian Reservation and the Northern Cheyenne Indian Reservation and including the Big Horn River drainage except the waters listed in (1)(c)(i) through (vii) C-3
 - (i) Yellowstone River mainstem B-3
 - (ii) Pryor Creek drainage outside the Crow Indian Reservation boundary .. B-1
 - (iii) Big Horn drainage above but excluding Williams Coulee near Hardin and excluding waters within the Crow Indian Reservation B-1
 - (iv) Big Horn River mainstem from the Crow Indian Reservation boundary to Yellowstone River B-2
 - (v) Tongue River (mainstem) from the western crossing of the Wyoming boundary and the Tongue River Reservoir to Prairie Dog Creek (approximately at latitude 45.2692, longitude -106.6243) B-2
 - (vi) Tongue River mainstem from Prairie Dog Creek to Yellowstone River B-3
 - (vii) Fox Creek drainage near Sidney B-2

(History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; AMD, 1988 MAR p. 1191, Eff. 6/10/88; TRANS, from DHES, 1996 MAR p. 1499; AMD, 2002 MAR p. 387, Eff. 2/15/02; AMD, 2017 MAR p. 602, Eff. 5/13/17.)

17.30.612 WATER-USE CLASSIFICATIONS--LITTLE MISSOURI RIVER DRAINAGE--BELLE FOURCHE DRAINAGE (1) The water-use classifications adopted for all waters in the Little Missouri and Belle Fourche drainages are..... C-3 (History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; TRANS, from DHES, 1996 MAR p. 1499.)

17.30.613 WATER-USE CLASSIFICATIONS--HUDSON BAY DRAINAGE
The water-use classifications for the Hudson Bay drainage are:
(1) All waters outside Glacier National Park..... B-1 (History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; TRANS, from DHES, 1996 MAR p. 1499.)

17.30.614 WATER-USE CLASSIFICATIONS--NATIONAL PARK, WILDERNESS AND PRIMITIVE AREA WATERS The water-use classifications for all national park, wilderness and primitive area waters are as follows:
(1) All waters even if classifications listed in ARM 17.30.607 through 17.30.613 imply or state otherwise A-1 (History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; TRANS, from DHES, 1996 MAR p. 1499.)

17.30.615 WATER-USE CLASSIFICATIONS AND DESCRIPTIONS - CONSTRUCTED DITCHES, SEASONAL AND SEMI-PERMANENT LAKES, AND EPHEMERAL STREAMS (1) The water-use classifications for waters in constructed irrigation ditches and drain ditches that are state waters as defined in 75-5-103, MCA, and the water-use classification for waters in ephemeral streams and seasonal and semi-permanent lakes and ponds are as follows:
(a) waters in constructed irrigation and drain ditches that contain controlled flows of surface water and are de-watered during the non-irrigation season..... D-1
(b) waters in constructed irrigation and drain ditches that contain controlled flows of surface water mixed with ground water D-2
(c) ephemeral streams including ephemeral streams with flows that are periodically augmented by discharges from point sources E-1
(d) ephemeral streams with flows that are augmented by continuous discharges from point sources..... E-2
(e) seasonal lakes and ponds E-3
(f) semi-permanent lakes and ponds, not including reservoirs, that have an electrical conductivity (EC) less than 7,000 µS/cm..... E-4

- (g) semi-permanent lakes and ponds, not including reservoirs, that seasonally have an EC equal to or greater than 7,000 µS/cm..... E-5
- (h) streams with low or sporadic flow that, because of natural hydro-geomorphic and hydrologic conditions, are not able to support fish F-1
- (2) Prior to reclassifying a specific water body classified in ARM 17.30.607 through 17.30.614 under one of the water-use classifications identified in (1)(a) through (h) and before the U.S. Environmental Protection Agency's approval of the water body's revised classification, a use attainability analysis must be conducted in accordance with 40 CFR 131.10(g), (h), and (j). (History: 75-5-301, MCA; IMP, 75-5-301, MCA; NEW, 2002 MAR p. 2196, Eff. 8/16/02; AMD, 2004 MAR p. 725, Eff. 4/9/04; AMD, 2006 MAR p. 528, Eff. 2/24/06.)

17.30.616 WATER-USE CLASSIFICATION AND DESCRIPTIONS FOR PONDS AND RESERVOIRS CONSTRUCTED FOR THE DISPOSAL OF COAL BED METHANE WATER (REPEALED) (History: 75-5-301, MCA; IMP, 75-5-301, MCA; NEW, 2003 MAR p. 1274, Eff. 6/27/03; REP, 2012 MAR p. 2060, Eff. 10/12/12.)

17.30.617 OUTSTANDING RESOURCE WATERS -- DESIGNATION

(1) All state surface waters located wholly within the boundaries of designated national parks or wilderness areas as of October 1, 1995, are outstanding resource waters (ORWs). Other state waters may be designated an ORW by the board following the procedures in 75-5-316, MCA, subject to approval by the legislature. (History: 75-5-301, 75-5-316, MCA; IMP, 75-5-316, MCA; NEW, 2006 MAR p. 528, Eff. 2/24/06.)

Rule 17.30.618 reserved

17.30.619 INCORPORATIONS BY REFERENCE (1) The board adopts and incorporates by reference the following state and federal requirements and procedures as part of Montana's surface water quality standards:

(a) Department Circular DEQ-7, entitled "Montana Numeric Water Quality Standards" (June 2019 edition), which establishes numeric water quality standards for toxic, carcinogenic, bioconcentrating, radioactive, and harmful parameters and also establishes human health-based water quality standards for the following specific nutrients with toxic effects:

- (i) nitrate;
- (ii) nitrate + nitrite; and
- (iii) nitrite;

(b) the Water Quality Standards Handbook, Second Edition, EPA-823-B-94-005a, August 1994, that sets forth procedures for development of site-specific criteria;

(c) 40 CFR Part 136 (July 1, 2015), which establishes guidelines and procedures for the analysis of pollutants;

(d) 40 CFR 131.10(g), (h) and (j) (2000), which establishes criteria and guidelines for conducting a use attainability analysis;

(e) Department Circular DEQ-12A, entitled "Montana Base Numeric Nutrient Standards" (July 2014 edition), which establishes numeric water quality standards for total nitrogen and total phosphorus in surface waters; and

(f) the provision in ARM 17.30.1350(1) that authorizes compliance schedules contained in the Montana Pollutant Discharge Elimination System Permit regulations.

(2) If a court of competent jurisdiction declares 75-5-313, MCA, or any portion of that statute invalid, or if the United States Environmental Protection Agency disapproves 75-5-313, MCA, or any portion of that statute, under 30 CFR 131.21, or if rules adopted pursuant to 75-5-313(6) or (7), MCA, expire and general variances are not available, then (1)(e) and all references to DEQ-12A, base numeric nutrient standards and nutrient standards variances in ARM 17.30.201, 17.30.507, 17.30.516, 17.30.602, 17.30.622 through 17.30.629, 17.30.635, 17.30.702, and 17.30.715 are void, and the narrative water quality standards contained in ARM 17.30.637 are the standards for total nitrogen and total phosphorus in surface water, except for the Clark Fork River, for which the standards are the numeric standards in ARM 17.30.631.

(3) Copies of the materials listed in (1) may be obtained from the Department of Environmental Quality, P.O. Box 200901, Helena, MT 59620-0901. (History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, 75-5-313, MCA; NEW, 2002 MAR p. 387, Eff. 2/15/02; AMD, 2002 MAR p. 2196, Eff. 8/16/02; AMD, 2003 MAR p. 217, Eff. 2/14/03; AMD, 2004 MAR p. 725, Eff. 4/9/04; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2008 MAR p. 946, Eff. 5/9/08; AMD, 2010 MAR p. 1796, Eff. 8/13/10; AMD, 2012 MAR p. 2060, Eff. 10/12/12; AMD, 2014 MAR p. 1815, Eff. 8/8/14; AMD, 2017 MAR p. 602, Eff. 5/13/17; AMD, 2019 MAR p. 826, Eff. 6/22/19.)

17.30.620 SPECIFIC SURFACE WATER QUALITY STANDARDS--

GENERAL (1) Specific surface water quality standards, along with general provisions in ARM 17.30.635 through 17.30.637, 17.30.640, 17.30.641, 17.30.645, and 17.30.646, protect the beneficial water uses set forth in the water-use descriptions for the following classifications of water.

(2) Standards for Escherichia coli bacteria are based on a minimum of five samples obtained during separate 24-hour periods during any consecutive 30-day period analyzed by the most probable number or equivalent membrane filter methods. (History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; TRANS, from DHES, 1996 MAR p. 1499; AMD, 2006 MAR p. 528, Eff. 2/24/06.)

17.30.621 A-CLOSED CLASSIFICATION STANDARDS (1) Waters

classified A-Closed are to be maintained suitable for drinking, culinary, and food processing purposes after simple disinfection. Water quality is to be maintained suitable for swimming, recreation, growth, and propagation of fishes and associated aquatic life, although access restrictions to protect public health may limit actual use of A-Closed waters for these uses.

(2) Public access and activities such as livestock grazing and timber harvest are to be controlled by the utility owner under conditions prescribed and orders issued by the department.

(3) No person may violate the following specific water quality standards for waters classified A-Closed:

(a) The geometric mean number of Escherichia coli bacteria may not exceed 32 colony forming units per 100 milliliters and 10 percent of the samples may not exceed 64 colony forming units per 100 milliliters during any 30-day period. Water quality criteria for Escherichia coli are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b).

(b) No change from naturally occurring dissolved oxygen levels is allowed.

(c) No change from natural pH is allowed.

(d) No increase above naturally occurring turbidity is allowed except as permitted in 75-5-318, MCA.

(e) No increase above naturally occurring water temperature is allowed.

(f) No increases are allowed above naturally occurring concentrations of sediment or suspended sediment (except as permitted in 75-5-318, MCA), settleable solids, oils, or floating solids, which will or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife.

(g) No increase in true color is allowed.

(h) No increases of carcinogenic, bioconcentrating, toxic or harmful parameters, pesticides, and organic and inorganic materials, including heavy metals, above naturally occurring concentrations, are allowed.

(i) No increase in radioactivity above natural background levels is allowed. (History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; AMD, 1988 MAR p. 1191, Eff. 6/10/88; AMD, 1994 MAR p. 2136, Eff. 8/12/94; TRANS, from DHES, and AMD, 1996 MAR p. 1499, Eff. 6/7/96; AMD, 2002 MAR p. 387, Eff. 2/15/02; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2017 MAR p. 602, Eff. 5/13/17.)

17.30.622 A-1 CLASSIFICATION STANDARDS (1) Waters classified A-1 are to be maintained suitable for drinking, culinary and food processing purposes after conventional treatment for removal of naturally present impurities.

(2) Water quality must be maintained suitable for bathing, swimming, and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply.

(3) No person may violate the following specific water quality standards for waters classified A-1:

(a) The geometric mean number of Escherichia coli bacteria may not exceed 32 colony forming units per 100 milliliters and 10 percent of the samples may not exceed 64 colony forming units per 100 milliliters during any 30-day period if resulting from domestic sewage. Water quality criteria for Escherichia coli are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b).

(b) Dissolved oxygen concentration must not be reduced below the applicable standards given in department Circular DEQ-7.

(c) Induced variation of hydrogen ion concentration (pH) within the range of 6.5 to 8.5 must be less than 0.5 pH unit. Natural pH outside this range must be maintained without change. Natural pH above 7.0 must be maintained above 7.0.

(d) No increase above naturally occurring turbidity or suspended sediment is allowed except as permitted in 75-5-318, MCA.

(e) A 1°F maximum increase above naturally occurring water temperature is allowed within the range of 32°F to 66°F; within the naturally occurring range of 66°F to 66.5°F, no discharge is allowed which will cause the water temperature to exceed 67°F; and where the naturally occurring water temperature is 66.5°F or greater, the maximum allowable increase in water temperature is 0.5°F. A 2°F-per-hour maximum decrease below naturally occurring water temperature is allowed when the water temperature is above 55°F. A 2°F maximum decrease below naturally occurring water temperature is allowed within the range of 55°F to 32°F.

(f) No increases are allowed above naturally occurring concentrations of sediment or suspended sediment (except as permitted in 75-5-318, MCA), settleable solids, oils, or floating solids, which will or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife.

(g) True color must not be increased more than two color units above naturally occurring color.

(h) Concentrations of carcinogenic, bioconcentrating, toxic, radioactive, nutrient, or harmful parameters may not exceed the applicable standards set forth in Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A.

(i) Dischargers issued permits under ARM Title 17, chapter 30, subchapter 13, shall conform with ARM Title 17, chapter 30, subchapter 7, the nondegradation rules, and may not cause receiving water concentrations to exceed the applicable standards contained in Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A when stream flows equal or exceed the design flows specified in ARM 17.30.635(2).

(j) If site-specific criteria for aquatic life are adopted using the procedures given in 75-5-310, MCA, the criteria shall be used as water quality standards for the affected waters and as the basis for permit limits instead of the applicable standards in Department Circular DEQ-7.

(k) In accordance with 75-5-306(1), MCA, it is not necessary that wastes be treated to a purer condition than the natural condition of the receiving water as long as the minimum treatment requirements, adopted pursuant to 75-5-305, MCA, are met. (History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; AMD, 1984 MAR p. 1802, Eff. 12/14/84; AMD, 1988 MAR p. 1191, Eff. 6/10/88; AMD, 1994 MAR p. 2136, Eff. 8/12/94; AMD, 1995 MAR p. 1798, Eff. 9/15/95; AMD, 1996 MAR p. 555, Eff. 2/23/96; TRANS, from DHES, and AMD, 1996 MAR p. 1499, Eff. 6/7/96; AMD, 1999 MAR p. 94, Eff. 1/15/99; AMD, 1999 MAR p. 2257, Eff. 10/8/99; AMD, 1999 MAR p. 2275, Eff. 10/8/99; AMD, 2002 MAR p. 1089, Eff. 2/15/02; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2014 MAR p. 1815, Eff. 8/8/14; AMD, 2017 MAR p. 602, Eff. 5/13/17.)

17.30.623 B-1 CLASSIFICATION STANDARDS (1) Waters classified B-1 are to be maintained suitable for drinking, culinary, and food processing purposes, after conventional treatment; bathing, swimming, and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply.

(2) No person may violate the following specific water quality standards for waters classified B-1:

(a) Water quality criteria for *Escherichia coli* are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b). The water quality standard for *Escherichia coli* bacteria (E-coli) varies according to season, as follows:

(i) from April 1 through October 31, the geometric mean number of E-coli may not exceed 126 colony forming units per 100 milliliters and 10 percent of the total samples may not exceed 252 colony forming units per 100 milliliters during any 30-day period; and

(ii) from November 1 through March 31, the geometric mean number of E-coli may not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples may not exceed 1,260 colony forming units per 100 milliliters during any 30-day period.

(b) Dissolved oxygen concentration must not be reduced below the applicable standards given in department Circular DEQ-7.

(c) Induced variation of hydrogen ion concentration (pH) within the range of 6.5 to 8.5 must be less than 0.5 pH unit. Natural pH outside this range must be maintained without change. Natural pH above 7.0 must be maintained above 7.0.

(d) The maximum allowable increase above naturally occurring turbidity is five nephelometric turbidity units except as permitted in 75-5-318, MCA.

(e) A 1°F maximum increase above naturally occurring water temperature is allowed within the range of 32°F to 66°F; within the naturally occurring range of 66°F to 66.5°F, no discharge is allowed which will cause the water temperature to exceed 67°F; and where the naturally occurring water temperature is 66.5°F or greater, the maximum allowable increase in water temperature is 0.5°F. A 2°F per-hour maximum decrease below naturally occurring water temperature is allowed when the water temperature is above 55°F. A 2°F maximum decrease below naturally occurring water temperature is allowed within the range of 55°F to 32°F. This applies to all waters in the state classified B-1 except for Prickly Pear Creek from McClellan Creek to the Montana Highway No. 433 crossing where a 2°F maximum increase above naturally occurring water temperature is allowed within the range of 32°F to 65°F; within the naturally occurring range of 65°F to 66.5°F, no discharge is allowed which will cause the water temperature to exceed 67°F; and where the naturally occurring water temperature is 66.5°F or greater, the maximum allowable increase in water temperature is 0.5°F.

(f) No increases are allowed above naturally occurring concentrations of sediment or suspended sediment (except as permitted in 75-5-318, MCA), settleable solids, oils, or floating solids, which will or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife.

(g) True color must not be increased more than five color units above naturally occurring color.

(h) Concentrations of carcinogenic, bioconcentrating, toxic, radioactive, nutrient, or harmful parameters may not exceed the applicable standards set forth in Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A.

(i) Dischargers issued permits under ARM Title 17, chapter 30, subchapter 13, shall conform with ARM Title 17, chapter 30, subchapter 7, the nondegradation rules, and may not cause receiving water concentrations to exceed the applicable standards specified in Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A when stream flows equal or exceed the design flows specified in ARM 17.30.635(2).

(j) If site-specific criteria for aquatic life are adopted using the procedures given in 75-5-310, MCA, the criteria shall be used as water quality standards for the affected waters and as the basis for permit limits instead of the applicable standards in Department Circular DEQ-7.

(k) In accordance with 75-5-306(1), MCA, it is not necessary that wastes be treated to a purer condition than the natural condition of the receiving water as long as the minimum treatment requirements, adopted pursuant to 75-5-305, MCA, are met. (History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, 75-5-313, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; AMD, 1982 MAR p. 1746, Eff. 10/1/82; AMD, 1984 MAR p. 1802, Eff. 12/14/84; AMD, 1988 MAR p. 1191, Eff. 6/10/88; AMD, 1994 MAR p. 2136, Eff. 8/12/94; AMD, 1995 MAR p. 1798, Eff. 9/15/95; AMD, 1996 MAR p. 555, Eff. 2/23/96; TRANS, from DHES, and AMD, 1996 MAR p. 1499, Eff. 6/7/96; AMD, 1999 MAR p. 94, Eff. 1/15/99; AMD, 1999 MAR p. 2257, Eff. 10/8/99; AMD, 1999 MAR p. 2275, Eff. 10/8/99; AMD, 2002 MAR p. 387, Eff. 2/15/02; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2014 MAR p. 1815, Eff. 8/8/14; AMD, 2017 MAR p. 602, Eff. 5/13/17.)

17.30.624 B-2 CLASSIFICATION STANDARDS (1) Waters classified B-2 are to be maintained suitable for drinking, culinary, and food processing purposes, after conventional treatment; bathing, swimming, and recreation; growth and marginal propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply.

(2) No person may violate the following specific water quality standards for waters classified B-2:

(a) Water quality criteria for *Escherichia coli* are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b). The water quality standard for *Escherichia coli* bacteria (E-coli) varies according to season, as follows:

(i) from April 1 through October 31, the geometric mean number of E-coli may not exceed 126 colony forming units per 100 milliliters and 10 percent of the total samples may not exceed 252 colony forming units per 100 milliliters during any 30-day period; and

(ii) from November 1 through March 31, the geometric mean number of E-coli may not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples may not exceed 1,260 colony forming units per 100 milliliters during any 30-day period.

(b) Dissolved oxygen concentration must not be reduced below the applicable standards given in department Circular DEQ-7.

(c) Induced variation of hydrogen ion concentration (pH) within the range of 6.5 to 9.0 must be less than 0.5 pH unit. Natural pH outside this range must be maintained without change. Natural pH above 7.0 must be maintained above 7.0.

(d) The maximum allowable increase above naturally occurring turbidity is 10 nephelometric turbidity units except as permitted in 75-5-318, MCA.

(e) A 1°F maximum increase above naturally occurring water temperature is allowed within the range of 32°F to 66°F; within the naturally occurring range of 66°F to 66.5°F, no discharge is allowed which will cause the water temperature to exceed 67°F; and where the naturally occurring water temperature is 66.5°F or greater, the maximum allowable increase in water temperature is 0.5°F. A 2°F per-hour maximum decrease below naturally occurring water temperature is allowed when the water temperature is above 55°F. A 2°F maximum decrease below naturally occurring water temperature is allowed within the range of 55°F to 32°F.

(f) No increases are allowed above naturally occurring concentrations of sediment or suspended sediment (except as permitted in 75-5-318, MCA), settleable solids, oils, or floating solids which will or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife.

(g) True color must not be increased more than five color units above naturally occurring color.

(h) Concentrations of carcinogenic, bioconcentrating, toxic, radioactive, nutrient, or harmful parameters may not exceed the applicable standards set forth in Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A.

(i) Dischargers issued permits under ARM Title 17, chapter 30, subchapter 13, shall conform with ARM Title 17, chapter 30, subchapter 7, the nondegradation rules, and may not cause receiving water concentrations to exceed the applicable standards specified in Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A when stream flows equal or exceed the design flows specified in ARM 17.30.635(2).

(j) If site-specific criteria for aquatic life are adopted using the procedures given in 75-5-310, MCA, the criteria shall be used as water quality standards for the affected waters and as the basis for permit limits instead of the applicable standards in Department Circular DEQ-7.

(k) In accordance with 75-5-306(1), MCA, it is not necessary that wastes be treated to a purer condition than the natural condition of the receiving water as long as the minimum treatment requirements, adopted pursuant to 75-5-305, MCA, are met. (History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, 75-5-313, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; AMD, 1982 MAR p. 1746, Eff. 10/1/82; AMD, 1984 MAR p. 1802, Eff. 12/14/84; AMD, 1988 MAR p. 1191, Eff. 6/10/88; AMD, 1994 MAR p. 2136, Eff. 8/12/94; AMD, 1995 MAR p. 1798, Eff. 9/15/95; AMD, 1996 MAR p. 555, Eff. 2/23/96; TRANS, from DHES, and AMD, 1996 MAR p. 1499, Eff. 6/7/96; AMD, 1999 MAR p. 94, Eff. 1/15/99; AMD, 1999 MAR p. 2257, Eff. 10/8/99; AMD, 1999 MAR p. 2275, Eff. 10/8/99; AMD, 2002 MAR p. 387, Eff. 2/15/02; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2014 MAR p. 1815, Eff. 8/8/14; AMD, 2017 MAR p. 602, Eff. 5/13/17.)

17.30.625 B-3 CLASSIFICATION STANDARDS (1) Waters classified B-3 are to be maintained suitable for drinking, culinary, and food processing purposes, after conventional treatment; bathing, swimming, and recreation; growth and propagation of non-salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply.

(2) No person may violate the following specific water quality standards for waters classified B-3:

(a) Water quality criteria for *Escherichia coli* are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b). The water quality standard for *Escherichia coli* bacteria (E-coli) varies according to season, as follows:

(i) from April 1 through October 31, the geometric mean number of E-coli may not exceed 126 colony forming units per 100 milliliters and 10 percent of the total samples may not exceed 252 colony forming units per 100 milliliters during any 30-day period; and

(ii) from November 1 through March 31, the geometric mean number of E-coli may not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples may not exceed 1,260 colony forming units per 100 milliliters during any 30-day period.

(b) Dissolved oxygen concentration must not be reduced below the applicable standards specified in department Circular DEQ-7.

(c) Induced variation of hydrogen ion concentration (pH) within the range of 6.5 to 9.0 must be less than 0.5 pH unit. Natural pH outside this range must be maintained without change. Natural pH above 7.0 must be maintained above 7.0.

(d) The maximum allowable increase above naturally occurring turbidity is 10 nephelometric turbidity units except as permitted in 75-5-318, MCA.

(e) A 3°F maximum increase above naturally occurring water temperature is allowed within the range of 32°F to 77°F; within the naturally occurring range of 77°F to 79.5°F, no thermal discharge is allowed which will cause the water temperature to exceed 80°F; and where the naturally occurring water temperature is 79.5°F or greater, the maximum allowable increase in water temperature is 0.5°F. A 2°F per-hour maximum decrease below naturally occurring water temperature is allowed when the water temperature is above 55°F. A 2°F maximum decrease below naturally occurring water temperature is allowed within the range of 55°F to 32°F.

(i) These allowable increases apply to all waters in the state classified B-3, except for the mainstem of the Yellowstone River from the Billings water supply intake to the water diversion at Intake, where a 3°F maximum increase above naturally occurring water temperature is allowed within the range of 32°F to 79°F; within the range of 79°F to 81.5°F, no thermal discharge is allowed which will cause the water temperature to exceed 82°F; and where the naturally occurring water temperature is 81.5°F or greater, the maximum allowable increase in water temperature is 0.5°F.

(ii) From the water diversion at Intake to the North Dakota state line, a 3°F maximum increase above naturally occurring water temperature is allowed within the range of 32°F to 82°F; within the range of 82°F to 84.5°F, no thermal discharge is allowed which will cause the water temperature to exceed 85°F; and where the naturally occurring water temperature is 84.5°F or greater, the maximum allowable increase in water temperature is 0.5°F.

(f) No increases are allowed above naturally occurring concentrations of sediment or suspended sediment (except as permitted in 75-5-318, MCA), settleable solids, oils, or floating solids, which will or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife.

(g) True color must not be increased more than five color units above naturally occurring color.

(h) Concentrations of carcinogenic, bioconcentrating, toxic, radioactive, nutrient, or harmful parameters may not exceed the applicable standards set forth in Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A.

(i) Dischargers issued permits under ARM Title 17, chapter 30, subchapter 13, shall conform with ARM Title 17, chapter 30, subchapter 7, the nondegradation rules, and may not cause receiving water concentrations to exceed the applicable standards specified in Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A when stream flows equal or exceed the design flows specified in ARM 17.30.635(2).

(j) If site-specific criteria for aquatic life are adopted using the procedures given in 75-5-310, MCA, the criteria shall be used as water quality standards for the affected waters and as the basis for permit limits instead of the applicable standards specified in Department Circular DEQ-7.

(k) In accordance with 75-5-306(1), MCA, it is not necessary that wastes be treated to a purer condition than the natural condition of the receiving water as long as the minimum treatment requirements, adopted pursuant to 75-5-305, MCA, are met. (History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, 75-5-313, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; AMD, 1982 MAR p. 1746, Eff. 10/1/82; AMD, 1984 MAR p. 1802, Eff. 12/14/84; AMD, 1988 MAR p. 1191, Eff. 6/10/88; AMD, 1994 MAR p. 2136, Eff. 8/12/94; AMD, 1995 MAR p. 1798, Eff. 9/15/95; AMD, 1996 MAR p. 555, Eff. 2/23/96; TRANS, from DHES, and AMD, 1996 MAR p. 1499, Eff. 6/7/96; AMD, 1999 MAR p. 94, Eff. 1/15/99; AMD, 1999 MAR p. 2257, Eff. 10/8/99; AMD, 1999 MAR p. 2275, Eff. 10/8/99; AMD, 2002 MAR p. 387, Eff. 2/15/02; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2014 MAR p. 1815, Eff. 8/8/14; AMD, 2017 MAR p. 602, Eff. 5/13/17.)

17.30.626 C-1 CLASSIFICATION STANDARDS (1) Waters classified C-1 are to be maintained suitable for bathing, swimming, and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply.

(2) No person may violate the following specific water quality standards for waters classified C-1:

(a) Water quality criteria for *Escherichia coli* are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b). The water quality standard for *Escherichia coli* bacteria (E-coli) varies according to season, as follows:

(i) from April 1 through October 31, the geometric mean number of E-coli may not exceed 126 colony forming units per 100 milliliters and 10 percent of the total samples may not exceed 252 colony forming units per 100 milliliters during any 30-day period; and

(ii) from November 1 through March 31, the geometric mean number of E-coli may not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples may not exceed 1,260 colony forming units per 100 milliliters during any 30-day period.

(b) Dissolved oxygen concentration must not be reduced below the applicable standards given in department Circular DEQ-7.

(c) Induced variation of hydrogen ion concentration (pH) within the range of 6.5 to 8.5 must be less than 0.5 pH unit. Natural pH outside this range must be maintained without change. Natural pH above 7.0 must be maintained above 7.0.

(d) The maximum allowable increase above naturally occurring turbidity is five nephelometric turbidity units except as permitted in 75-5-318, MCA.

(e) A 1°F maximum increase above naturally occurring water temperature is allowed within the range of 32°F to 66°F; within the naturally occurring range of 66°F to 66.5°F, no discharge is allowed which will cause the water temperature to exceed 67°F; and where the naturally occurring water temperature is 66.5°F or greater, the maximum allowable increase in water temperature is 0.5°F. A 2°F per-hour maximum decrease below naturally occurring water temperature is allowed when the water temperature is above 55°F. A 2°F maximum decrease below naturally occurring water temperature is allowed within the range of 55°F to 32°F.

(f) No increases are allowed above naturally occurring concentrations of sediment or suspended sediment (except as permitted in 75-5-318, MCA), settleable solids, oils, or floating solids, which will or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife.

(g) True color must not be increased more than five color units above naturally occurring color.

(h) Concentrations of carcinogenic, bioconcentrating, toxic, radioactive, nutrient, or harmful parameters may not exceed the applicable standards specified in Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A.

(i) Dischargers issued permits under ARM Title 17, chapter 30, subchapter 13, shall conform with ARM Title 17, chapter 30, subchapter 7, the nondegradation rules, and may not cause receiving water concentrations to exceed the applicable standards specified in Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A when stream flows equal or exceed the design flows specified in ARM 17.30.635(2).

(j) If site-specific criteria for aquatic life are adopted using the procedures given in 75-5-310, MCA, the criteria shall be used as water quality standards for the affected waters and as the basis for permit limits instead of the applicable standards in Department Circular DEQ-7.

(k) In accordance with 75-5-306(1), MCA, it is not necessary that wastes be treated to a purer condition than the natural condition of the receiving water as long as the minimum treatment requirements, adopted pursuant to 75-5-305, MCA, are met. (History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, 75-5-313, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; AMD, 1982 MAR p. 1746, Eff. 10/1/82; AMD, 1984 MAR p. 1802, Eff. 12/14/84; AMD, 1988 MAR p. 1191, Eff. 6/10/88; AMD, 1994 MAR p. 2136, Eff. 8/12/94; AMD, 1995 MAR p. 1798, Eff. 9/15/95; AMD, 1996 MAR p. 555, Eff. 2/23/96; TRANS, from DHES, and AMD, 1996 MAR p. 1499, Eff. 6/7/96; AMD, 1999 MAR p. 94, Eff. 1/15/99; AMD, 1999 MAR p. 2257, Eff. 10/8/99; AMD, 1999 MAR p. 2275, Eff. 10/8/99; AMD, 2002 MAR p. 387, Eff. 2/15/02; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2014 MAR p. 1815, Eff. 8/8/14; AMD, 2017 MAR p. 602, Eff. 5/13/17.)

17.30.627 C-2 CLASSIFICATION STANDARDS (1) Waters classified C-2 are to be maintained suitable for bathing, swimming, and recreation; growth and marginal propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply.

(2) No person may violate the following specific water quality standards for waters classified C-2:

(a) Water quality criteria for *Escherichia coli* are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b). The water quality standard for *Escherichia coli* bacteria (E-coli) varies according to season, as follows:

(i) from April 1 through October 31, the geometric mean number of E-coli may not exceed 126 colony forming units per 100 milliliters and 10 percent of the total samples may not exceed 252 colony forming units per 100 milliliters during any 30-day period; and

(ii) from November 1 through March 31, the geometric mean number of E-coli may not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples may not exceed 1,260 colony forming units per 100 milliliters during any 30-day period.

(b) Dissolved oxygen concentration must not be reduced below the applicable standards given in department Circular DEQ-7. These levels apply to all waters in the state classified C-2 except for Ashley Creek below the bridge crossing on Airport Road where the dissolved oxygen concentrations may not be reduced below five mg/l from October 1 through June 1, nor below three mg/l from June 2 through September 30.

(c) Induced variation of hydrogen ion concentration (pH) within the range of 6.5 to 9.0 must be less than 0.5 pH unit. Natural pH outside this range must be maintained without change. Natural pH above 7.0 must be maintained above 7.0.

(d) The maximum allowable increase above naturally occurring turbidity is 10 nephelometric turbidity units except as permitted in 75-5-318, MCA.

(e) A 1°F maximum increase above naturally occurring water temperature is allowed within the range of 32°F to 66°F; within the naturally occurring range of 66°F to 66.5°F, no discharge is allowed which will cause the water temperature to exceed 67°F; and where the naturally occurring water temperature is 66.5°F or greater, the maximum allowable increase in water temperature is 0.5°F. A 2°F per-hour maximum decrease below naturally occurring water temperature is allowed when the water temperature is above 55°F. A 2°F maximum decrease below naturally occurring water temperature is allowed within the range of 55°F to 32°F.

(f) No increases are allowed above naturally occurring concentrations of sediment or suspended sediment (except as permitted in 75-5-318, MCA, settleable solids, oils, or floating solids, which will or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife).

(g) True color must not be increased more than five color units above naturally occurring color.

(h) Concentrations of carcinogenic, bioconcentrating, toxic, radioactive, nutrient, or harmful parameters may not exceed the applicable standards specified in Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A.

(i) Dischargers issued permits under ARM Title 17, chapter 30, subchapter 13, shall conform with ARM Title 17, chapter 30, subchapter 7, the nondegradation rules, and may not cause receiving water concentrations to exceed the applicable standards specified in Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A when stream flows equal or exceed the design flows specified in ARM 17.30.635(2).

(j) If site-specific criteria for aquatic life are adopted using the procedures given in 75-5-310, MCA, the criteria shall be used as water quality standards for the affected waters and as the basis for permit limits instead of the applicable standards in Department Circular DEQ-7.

(k) In accordance with 75-5-306(1), MCA, it is not necessary that wastes be treated to a purer condition than the natural condition of the receiving water as long as the minimum treatment requirements, adopted pursuant to 75-5-305, MCA, are met. (History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, 75-5-313, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; AMD, 1982 MAR p. 1746, Eff. 10/1/82; AMD, 1984 MAR p. 1802, Eff. 12/14/84; AMD, 1988 MAR p. 1191, Eff. 6/10/88; AMD, 1994 MAR p. 2136, Eff. 8/12/94; AMD, 1995 MAR p. 1798, Eff. 9/15/95; AMD, 1996 MAR p. 555, Eff. 2/23/96; TRANS, from DHES, and AMD, 1996 MAR p. 1499, Eff. 6/7/96; AMD, 1999 MAR p. 94, Eff. 1/15/99; AMD, 1999 MAR p. 2257, Eff. 10/8/99; AMD, 1999 MAR p. 2275, Eff. 10/8/99; AMD, 2002 MAR p. 387, Eff. 2/15/02; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2014 MAR p. 1815, Eff. 8/8/14; AMD, 2017 MAR p. 602, Eff. 5/13/17.)

17.30.628 I CLASSIFICATION STANDARDS (1) The goal of the state of Montana is to have these waters fully support the following uses: drinking, culinary, and food processing purposes after conventional treatment; bathing, swimming, and recreation; growth and propagation of fishes and associated aquatic life, waterfowl, and furbearers; and agricultural and industrial water supply. An analysis will be performed for each of these waters during each triennial standards review period to determine the factors preventing or limiting attainment of the designated uses listed herein. Based on these analyses, the specific standards listed below will be adjusted to reflect any improvements which have occurred in water quality as a result of water quality control of nonpoint-source pollution.

(2) No person may violate the following specific water quality standards for waters classified I:

(a) Water quality criteria for *Escherichia coli* are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b). The water quality standard for *Escherichia coli* bacteria (E-coli) varies according to seasons as follows:

(i) from April 1 through October 31, the geometric mean number of E-coli may not exceed 126 colony forming units per 100 milliliters and 10 percent of the total samples may not exceed 252 colony forming units per 100 milliliters during any 30-day period; and

(ii) from November 1 through March 31, the geometric mean number of E-coli may not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples may not exceed 1,260 colony forming units per 100 milliliters during any 30-day period.

(b) Dissolved oxygen concentration must not be reduced below the applicable standards given in department Circular DEQ-7.

(c) Hydrogen ion concentration must be maintained within the range of 6.5 to 9.5.

(d) Except as permitted in 75-5-318, MCA, no increase in naturally occurring turbidity is allowed which will or is likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife.

(e) No increase in naturally occurring temperature is allowed which will or is likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife.

(f) No increases are allowed above naturally occurring concentrations of sediment or suspended sediment (except as permitted in 75-5-318, MCA), and settleable solids, oils, or floating solids, which will or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife.

(g) No increase in naturally occurring true color is allowed which will or is likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife.

(h) No discharges of toxic, carcinogenic, or harmful parameters may commence or continue which lower, or are likely to lower, the overall water quality of these waters.

(i) As the quality of these waters improves due to control of nonpoint sources, point-source dischargers will be required to improve the quality of their discharges following the MPDES rules (ARM Title 17, chapter 30, subchapter 13).

(j) Beneficial uses are considered supported when the concentrations of toxic, carcinogenic, nutrient or harmful parameters in these waters do not exceed the applicable standards specified in Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A when stream flows equal or exceed the flows specified in ARM 17.30.635(2) or, alternatively, for aquatic life when site-specific criteria are adopted using the procedures given in 75-5-310, MCA. The limits shall be used as water quality standards for the affected waters and as the basis for permit limits instead of the applicable standards in Department Circular DEQ-7.

(k) Limits for toxic, carcinogenic, or harmful parameters in new discharge permits issued pursuant to the MPDES rules (ARM Title 17, chapter 30, subchapter 13) are the larger of the applicable standards specified in Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A, site-specific standards, or one-half of the mean in-stream concentrations immediately upstream of the discharge point. (History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, 75-5-313, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; AMD, 1982 MAR p. 1746, Eff. 10/1/82; AMD, 1988 MAR p. 1191, Eff. 6/10/88; AMD, 1994 MAR p. 2136, Eff. 8/12/94; AMD, 1995 MAR p. 1798, Eff. 9/15/95; AMD, 1996 MAR p. 555, Eff. 2/23/96; TRANS, from DHES, and AMD, 1996 MAR p. 1499, Eff. 6/7/96; AMD, 1999 MAR p. 94, Eff. 1/15/99; AMD, 1999 MAR p. 2257, Eff. 10/8/99; AMD, 1999 MAR p. 2275, Eff. 10/8/99; AMD, 2002 MAR p. 387, Eff. 2/15/02; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2014 MAR p. 1815, Eff. 8/8/14; AMD, 2017 MAR p. 602, Eff. 5/13/17.)

17.30.629 C-3 CLASSIFICATION STANDARDS (1) Waters classified C-3 are to be maintained suitable for bathing, swimming, and recreation, and growth and propagation of non-salmonid fishes and associated aquatic life, waterfowl, and furbearers. The quality of these waters is naturally marginal for drinking, culinary, and food processing purposes, agriculture, and industrial water supply.

(2) No person may violate the following specific water quality standards for waters classified C-3:

(a) Water quality criteria for *Escherichia coli* are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b). The water quality standard for *Escherichia coli* bacteria (E-coli) varies according to season, as follows:

(i) from April 1 through October 31, the geometric mean number of E-coli may not exceed 126 colony forming units per 100 milliliters and 10 percent of the total samples may not exceed 252 colony forming units per 100 milliliters during any 30-day period; and

(ii) from November 1 through March 31, the geometric mean number of E-coli may not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples may not exceed 1,260 colony forming units per 100 milliliters during any 30-day period.

(b) Dissolved oxygen concentration must not be reduced below the applicable standards specified in department Circular DEQ-7.

(c) Induced variation of hydrogen ion concentration (pH) within the range of 6.5 to 9.0 must be less than 0.5 pH unit. Natural pH outside this range must be maintained without change. Natural pH above 7.0 must be maintained above 7.0.

(d) The maximum allowable increase above naturally occurring turbidity is 10 nephelometric turbidity units, except as permitted in 75-5-318, MCA.

(e) A 3°F maximum increase above naturally occurring water temperature is allowed within the range of 32°F to 77°F; within the range of 77°F to 79.5°F, no thermal discharge is allowed which will cause the water temperature to exceed 80°F; and where the naturally occurring water temperature is 79.5°F or greater, the maximum allowable increase in water temperature is 0.5°F. A 2°F per-hour maximum decrease below naturally occurring water temperature is allowed when the water temperature is above 55°F. A 2°F maximum decrease below naturally occurring water temperature is allowed within the range of 55°F to 32°F.

(f) No increases are allowed above naturally occurring concentrations of sediment or suspended sediment (except as permitted in 75-5-318, MCA), settleable solids, oils or floating solids, which will or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife.

(g) True color must not be increased more than five color units above naturally occurring color.

(h) Concentrations of carcinogenic, bioconcentrating, toxic, radioactive, nutrient, or harmful parameters may not exceed the applicable standards set forth in Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A.

(i) Dischargers issued permits under ARM Title 17, chapter 30, subchapter 13, shall conform with ARM Title 17, chapter 30, subchapter 7, the nondegradation rules, and may not cause receiving water concentrations to exceed the applicable standards specified in Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A when stream flows equal or exceed the design flows specified in ARM 17.30.635(2).

(j) If site-specific criteria for aquatic life are adopted using the procedures given in 75-5-310, MCA, the criteria shall be used as water quality standards for the affected waters and as the basis for permit limits instead of the applicable standards specified in Department Circular DEQ-7.

(k) In accordance with 75-5-306(1), MCA, it is not necessary that wastes be treated to a purer condition than the natural condition of the receiving water as long as the minimum treatment requirements, adopted pursuant to 75-5-305, MCA, are met. (History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, 75-5-313, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; AMD, 1982 MAR p. 1746, Eff. 10/1/82; AMD, 1984 MAR p. 1802, Eff. 12/14/84; AMD, 1988 MAR p. 1191, Eff. 6/10/88; AMD, 1994 MAR p. 2136, Eff. 8/12/94; AMD, 1995 MAR p. 1798, Eff. 9/15/95; AMD, 1996 MAR p. 555, Eff. 2/23/96; TRANS, from DHES, and AMD, 1996 MAR p. 1499, Eff. 6/7/96; AMD, 1999 MAR p. 94, Eff. 1/15/99; AMD, 1999 MAR p. 2257, Eff. 10/8/99; AMD, 1999 MAR p. 2275, Eff. 10/8/99; AMD, 2002 MAR p. 387, Eff. 2/15/02; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2012 MAR p. 2060, Eff. 10/12/12; AMD, 2014 MAR p. 1815, Eff. 8/8/14; AMD, 2017 MAR p. 602, Eff. 5/13/17.)

17.30.630 TEMPORARY WATER QUALITY STANDARDS (1) Following are the temporary water quality standards and related provisions for New World Mining District:

(a) The goal of the state of Montana is to have these waters support the uses listed for waters classified B-1 at ARM 17.30.623(1). The standards for the parameters listed in this rule temporarily modify the specific standards for those parameters provided in ARM 17.30.623 for each of the water bodies listed below, until the temporary standards expire or are terminated by the board. The standards for parameters not listed in this rule are the specific standards listed in ARM 17.30.623. The existing uses of the water bodies listed below must be maintained during the period that these temporary standards are in effect. No increase from existing conditions for any of the parameters that have been temporarily modified (no decrease for pH) is allowed at any point in the affected stream segments. The numerical standards for specific parameters listed below apply only at the downstream end of the stream segment. The requirements of ARM 17.30.623 apply to the waters listed in this rule except where those requirements conflict with the temporary standards listed below.

(b) The temporary standards for these stream segments are effective June 4, 1999.

(c) Temporary water quality standards for Daisy Creek, from its headwaters to its confluence with the Stillwater River in the Yellowstone River Drainage, are as follows. No increase from existing conditions (no decrease for pH) is allowed at any point in Daisy Creek for any of the following parameters. These standards are in effect until June 4, 2019. Metals standards are in terms of micrograms per liter (µg/liter) total recoverable concentrations and pH standards are in standard units (su).

<u>Parameter</u>	<u>In Daisy Creek at its confluence with the Stillwater River, the following standards shall not be exceeded more than 3% of the time.</u>
	<u>µg/liter</u>
Aluminum	9,510.
Cadmium	4.
Copper	3,530.
Iron	6,830.
Manganese	1,710.
Zinc	540.
pH	must be maintained above 4.6 su.

(d) Temporary water quality standards for a headwater portion of the Stillwater River, a tributary of the Yellowstone River, from Daisy Creek to the Absaroka-Beartooth wilderness boundary, are as follows. No increase from existing conditions (no decrease for pH) is allowed at any point in this reach of the Stillwater River for any of the following parameters. These standards are in effect until June 4, 2019. Metals standards are in terms of micrograms per liter ($\mu\text{g}/\text{liter}$) total recoverable concentrations and pH standards are in standard units (su).

<u>Parameter</u>	<u>In the Stillwater River at the Absaroka-Beartooth wilderness boundary, the following standards shall not be exceeded more than 3% of the time.</u>
	<u>$\mu\text{g}/\text{liter}$</u>
Aluminum	670.
Copper	200.
Iron	1,320.
Lead	13.
Manganese	86.
Zinc	49.
pH	must be maintained above 5.5 su.

(e) Temporary water quality standards for Fisher Creek, from its headwaters to its confluence with Lady of the Lake Creek, the headwaters of the Clark's Fork of the Yellowstone River, are as follows. No increase from existing conditions (no decrease for pH) is allowed at any point in Fisher Creek for any of the following parameters. These standards are in effect until June 4, 2019. Metals standards are in terms of micrograms per liter ($\mu\text{g}/\text{liter}$) total recoverable concentrations and pH standards are in standard units (su).

<u>Parameter</u>	<u>In Fisher Creek at its confluence with the Lady of the Lake Creek, the following standards shall not be exceeded more than 3% of the time.</u>
	<u>$\mu\text{g}/\text{liter}$</u>
Aluminum	470.
Copper	110.
Iron	750.
Lead	2.
Manganese	82.
Zinc	44.
pH	must be maintained above 5.7 su.

(History: 75-5-201, 75-5-312, MCA; IMP, 75-5-312, MCA; NEW, 1999 MAR p. 1218, Eff. 6/4/99; AMD, 2000 MAR p. 1317, Eff. 5/26/00; AMD, 2006 MAR p. 3072, Eff. 12/22/06; AMD, 2014 MAR p. 681, Eff. 4/11/14.)

17.30.631 NUMERIC ALGAL BIOMASS AND NUTRIENT STANDARDS

(1) No person may violate the numeric water quality standards identified below.

(2) The numeric nutrient and standing crop of benthic algae water quality standards for the mainstem Clark Fork River from below the Warm Springs Creek confluence (N46°11'17", W112°46'03") to the confluence with the Flathead River (N47°21'45", W114°46'43") are as follows:

(a) In the mainstem Clark Fork River from below the Warm Springs Creek confluence (N46°11'17", W112°46'03") to the confluence with the Blackfoot River (N46°52'19", W113°53'35") the numeric water quality standards for Total Nitrogen, Total Phosphorus, and benthic algal chlorophyll a, applicable from June 21 to September 21, are as follows:

(i) <u>Parameter</u>	<u>Concentration</u>
Total Phosphorus as P	20 µg/L
Total Nitrogen as N	300 µg/L
(ii) <u>Parameter</u>	<u>Density</u>
(Summer mean) - Benthic algal chlorophyll a	100 mg/square meter
(Maximum) - Benthic algal chlorophyll a	150 mg/square meter

(b) In the Clark Fork River from the confluence with the Blackfoot River (N46°52'19", W113°53'35") to the confluence with the Flathead River (N47°21'45", W114°46'43") the numeric water quality standards for Total Nitrogen, Total Phosphorus, and benthic algal chlorophyll a, applicable from June 21 to September 21, are as follows:

(i) <u>Parameter</u>	<u>Concentration</u>
Total Phosphorus as P	39 µg/L
Total Nitrogen as N	300 µg/L
(ii) <u>Parameter</u>	<u>Density</u>
(Summer mean) - Benthic algal chlorophyll a	100 mg/square meter
(Maximum) - Benthic algal chlorophyll a	150 mg/square meter

(History: 75-5-301, MCA; IMP, 75-5-301, MCA; NEW, 2002 MAR p. 2196, Eff. 8/16/02.)

Rules 17.30.632 through 17.30.634 reserved

17.30.635 GENERAL TREATMENT STANDARDS (1) The degree of waste treatment required to restore and maintain the quality of surface waters shall be based on the surface water quality standards and the following:

- (a) the state's policy of nondegradation of existing high water quality as described in 75-5-303, MCA;
- (b) present and anticipated beneficial uses of the receiving water;
- (c) the quality and nature of the flow of the receiving water;
- (d) the quantity and quality of the sewage, industrial waste or other waste to be treated; and
- (e) the presence or absence of other sources of pollution on the same watershed.

(2) For design of disposal systems, stream flow dilution requirements must be based on the minimum consecutive seven-day average flow which may be expected to occur on the average of once in ten years. When dilution flows are less than the above design flow at a point discharge, the discharge is to be governed by the permit conditions developed for the discharge through the waste discharge permit program. If the flow records on an affected surface water are insufficient to calculate a ten-year seven-day low flow, the department shall determine an acceptable stream flow for disposal system design. For total nitrogen and total phosphorus, the stream flow dilution requirements must be based on the seasonal 14Q5, which is the lowest average 14 consecutive day low flow, occurring from July through October, with an average recurrence frequency of once in five years.

(3) Where the department has determined that the disposal of sewage may adversely affect the quality of a lake or other state waters, the department may require additional information and data concerning such possible effects. Upon review of such information the department may impose specific requirements for sewage treatment and disposal as are necessary and appropriate to assure compliance with the Water Quality Act, Title 75, chapter 5, MCA. (History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; AMD, 1982 MAR p. 1746, Eff. 10/1/82; AMD, 1984 MAR p. 1802, Eff. 12/14/84; TRANS, from DHES, and AMD, 1996 MAR p. 1499, Eff. 6/7/96; AMD, 2002 MAR p. 387, Eff. 2/15/02; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2012 MAR p. 2060, Eff. 10/12/12; AMD, 2014 MAR p. 1815, Eff. 8/8/14.)

17.30.636 GENERAL OPERATION STANDARDS (1) Owners and operators of water impoundments that cause conditions harmful to prescribed beneficial uses of state water shall demonstrate to the satisfaction of the department that continued operations will be done in the best practicable manner to minimize harmful effects. New water impoundments must be designed to provide temperature variations in discharging water that maintain or enhance the existing propagating fishery and associated aquatic life. As a guide, the following temperature variations are recommended: continuously less than 40°F during the months of January and February, and continuously greater than 44°F during the months of June through September. (History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; TRANS, from DHES, and AMD, 1996 MAR p. 1499, Eff. 6/7/96; EMERG, AMD, 1997 MAR p. 1588, Eff. 9/9/97.)

17.30.637 GENERAL PROHIBITIONS (1) State surface waters must be free from substances attributable to municipal, industrial, agricultural practices or other discharges that will:

(a) settle to form objectionable sludge deposits or emulsions beneath the surface of the water or upon adjoining shorelines;

(b) create floating debris, scum, a visible oil film (or be present in concentrations at or in excess of 10 milligrams per liter), or globules of grease or other floating materials;

(c) produce odors, colors, or other conditions as to which create a nuisance or render undesirable tastes to fish flesh or make fish inedible;

(d) create concentrations or combinations of materials which are toxic or harmful to human, animal, plant, or aquatic life; and

(e) create conditions which produce undesirable aquatic life.

(2) No wastes may be discharged and no activities conducted such that the wastes or activities, either alone or in combination with other wastes or activities, will violate, or can reasonably be expected to violate, any of the standards.

(3) Until such time as minimum stream flows are established for dewatered streams, the minimum treatment requirements for discharges to dewatered receiving streams must be no less than the minimum treatment requirements set forth in ARM 17.30.1203.

(4) Treatment requirements for discharges to ephemeral streams must be no less than the minimum treatment requirements set forth in ARM 17.30.1203.

Ephemeral streams are subject to ARM 17.30.635 through 17.30.637, 17.30.640, 17.30.641, 17.30.645, and 17.30.646 but not to the specific water quality standards of ARM 17.30.620 through 17.30.629.

(5) Pollution resulting from storm drainage, storm sewer discharges, and non-point sources, including irrigation practices, road building, construction, logging practices, over-grazing, and other practices must be eliminated or minimized as ordered by the department.

(6) Application of pesticides in or adjacent to state surface waters must be in compliance with the labeled direction, and in accordance with provisions of the Montana Pesticides Act (Title 80, chapter 8, MCA) and the Federal Environmental Pesticides Control Act (7 USC 136, et seq., (Supp. 1973) as amended). Excess pesticides and pesticide containers must not be disposed of in a manner or in a location where they are likely to pollute surface waters.

(7) No pollutants may be discharged and no activities may be conducted which, either alone or in combination with other wastes or activities, result in the total dissolved gas pressure relative to the water surface exceeding 110% of saturation. (History: 75-5-201, 75-5-301, 75-6-112, MCA; IMP, 75-5-301, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; AMD, 1988 MAR p. 1191, Eff. 6/10/88; TRANS, from DHES, and AMD, 1996 MAR p. 1499, Eff. 6/7/96; AMD, 1999 MAR p. 2256, Eff. 10/8/99; AMD, 2012 MAR p. 2060, Eff. 10/12/12.)

17.30.638 OUTSTANDING RESOURCE WATERS -- PROHIBITIONS

(1) Any new or increased point source discharge that would result in a permanent change in water quality is prohibited. (History: 75-5-301, 75-5-316, MCA; IMP, 75-5-316, MCA; NEW, 2006 MAR p. 528, Eff. 2/24/06.)

Rule 17.30.639 reserved

17.30.640 MIXING ZONE (REPEALED) (History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; AMD, 1992 MAR p. 2064, Eff. 9/11/92; TRANS, from DHES, 1996 MAR p. 1499; REP, 1996 MAR p. 1854, Eff. 7/4/96.)

17.30.641 SAMPLING METHODS (1) Water quality monitoring, including methods of sample collection, preservation, and analysis used to determine compliance with the standards must be in accordance with 40 CFR Part 136 (July 1, 2015) or other method allowed by the department. (History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; TRANS, from DHES, 1996 MAR p. 1499; AMD, 2002 MAR p. 387, Eff. 2/15/02; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2008 MAR p. 946, Eff. 5/9/08; AMD, 2017 MAR p. 602, Eff. 5/13/17.)

Rules 17.30.642 through 17.30.644 reserved

17.30.645 RADIOLOGICAL CRITERIA (REPEALED) (History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; AMD, 1988 MAR p. 1191, Eff. 6/10/88; AMD, 1994 MAR p. 2136, Eff. 8/12/94; AMD, 1995 MAR p. 1798, Eff. 9/15/95; AMD, 1996 MAR p. 555, Eff. 2/23/96; TRANS, from DHES, 1996 MAR p. 1499; AMD, 2002 MAR p. 387, Eff. 2/15/02; AMD, 2006 MAR p. 528, Eff. 2/24/06; REP, 2016 MAR p. 517, Eff. 3/19/16.)

17.30.646 BIOASSAYS (1) Bioassay tolerance concentrations must be determined using the latest available research results for the materials, by bioassay tests procedures for simulating actual stream conditions as set forth in 40 CFR Part 136 (July 1, 2015). Any bioassay studies made must be made using a representative sensitive local species and life stages of economic or ecological importance, except that other species whose relative sensitivity is known may be used when there is difficulty in providing the more sensitive species in sufficient numbers or when such species are unsatisfactory for routine confined bioassays. All bioassay methods and species selections must be approved by the department. (History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; AMD, 1988 MAR p. 1191, Eff. 6/10/88; TRANS, from DHES, 1996 MAR p. 1499; AMD, 2002 MAR p. 387, Eff. 2/15/02; AMD, 2008 MAR p. 946, Eff. 5/9/08; AMD, 2017 MAR p. 602, Eff. 5/13/17.)

Rules 17.30.647 through 17.30.649 reserved

17.30.650 D-1 CLASSIFICATION STANDARDS (1) Waters classified D-1 are to be maintained suitable for agricultural purposes and secondary contact recreation.

(2) No person may violate the following specific water quality standards for waters classified D-1:

(a) the designated uses of a receiving water body under a different classification must be fully maintained;

(b) the geometric mean number of Escherichia coli bacteria may not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples may not exceed 1,260 colony forming units per 100 milliliters during any 30-day period. Water quality criteria for Escherichia coli are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b).

(3) The narrative standards in ARM 17.30.637(1)(d) and (2) that pertain to aquatic life do not apply. (History: 75-5-301, MCA; IMP, 75-5-301, MCA; NEW, 2002 MAR p. 2196, Eff. 8/16/02; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2017 MAR p. 602, Eff. 5/13/17.)

17.30.651 D-2 CLASSIFICATION STANDARDS (1) Waters classified D-2 are to be maintained suitable for agricultural purposes and secondary contact recreation. Because of conditions resulting from flow regulation, maintenance of the ditch or geomorphological and riparian habitat conditions, the quality of these waters is marginally suitable for aquatic life.

(2) No person may violate the following specific water quality standards for waters classified D-2:

- (a) the aquatic life standards for priority pollutants listed in DEQ-7;
- (b) the aquatic life standards for ammonia and other non-priority pollutants listed in DEQ-7, unless those standards are modified or removed based upon a use attainability analysis developed for a specific water body;
- (c) the designated uses of a receiving water body under a different classification must be fully maintained;

(d) the geometric mean number of *Escherichia coli* bacteria may not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples may not exceed 1,260 colony forming units per 100 milliliters during any 30-day period. Water quality criteria for *Escherichia coli* are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b). (History: 75-5-301, MCA; IMP, 75-5-301, MCA; NEW, 2002 MAR p. 2196, Eff. 8/16/02; AMD, 2004 MAR p. 725, Eff. 4/9/04; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2017 MAR p. 602, Eff. 5/13/17.)

17.30.652 E-1 CLASSIFICATION STANDARDS (1) Waters classified E-1 are to be maintained suitable for agricultural purposes, secondary contact recreation and wildlife.

(2) No person may violate the following specific water quality standards for waters classified E-1:

- (a) the designated uses of a receiving water body under a different classification must be fully maintained;
- (b) the geometric mean number of *Escherichia coli* bacteria may not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples may not exceed 1,260 colony forming units per 100 milliliters during any 30-day period. Water quality criteria for *Escherichia coli* are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b).

(3) The narrative standards in ARM 17.30.637(1)(d) and (2) that pertain to aquatic life do not apply. (History: 75-5-301, MCA; IMP, 75-5-301, MCA; NEW, 2002 MAR p. 2196, Eff. 8/16/02; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2017 MAR p. 602, Eff. 5/13/17.)

17.30.653 E-2 CLASSIFICATION STANDARDS (1) Waters classified E-2 are to be maintained suitable for agricultural purposes, secondary contact recreation, and wildlife. Because of habitat, low flow, hydro-geomorphic and other physical conditions these waters are marginally suitable for aquatic life.

(2) No person may violate the following specific water quality standards for waters classified E-2:

(a) the aquatic life standards for priority pollutants listed in DEQ-7;

(b) the aquatic life standards for ammonia and other non-priority pollutants listed in DEQ-7, unless those standards are modified or removed based upon a use attainability analysis developed for a specific water body;

(c) the designated uses of a receiving water body under a different classification must be fully maintained;

(d) the geometric mean number of Escherichia coli bacteria may not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples may not exceed 1,260 colony forming units per 100 milliliters during any 30-day period.

Water quality criteria for Escherichia coli are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b). (History: 75-5-301, MCA; IMP, 75-5-301, MCA; NEW, 2002 MAR p. 2196, Eff. 8/16/02; AMD, 2004 MAR p. 725, Eff. 4/9/04; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2017 MAR p. 602, Eff. 5/13/17.)

17.30.654 E-3 CLASSIFICATION STANDARDS (1) Waters classified E-3 are to be maintained suitable for agricultural purposes, secondary contact recreation, and wildlife.

(2) No person may violate the following specific water quality standards for waters classified E-3:

(a) the geometric mean number of Escherichia coli bacteria may not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples may not exceed 1,260 colony forming units per 100 milliliters during any 30-day period.

Water quality criteria for Escherichia coli are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b); and

(b) the designated uses of a receiving water body under a different classification must be fully maintained.

(3) The narrative standards in ARM 17.30.637(1)(d) and (2) that pertain to aquatic life do not apply. (History: 75-5-301, MCA; IMP, 75-5-301, MCA; NEW, 2002 MAR p. 2196, Eff. 8/16/02; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2017 MAR p. 602, Eff. 5/13/17.)

17.30.655 E-4 CLASSIFICATION STANDARDS (1) Waters classified E-4 are to be maintained suitable for aquatic life, agricultural purposes, secondary contact recreation, and wildlife.

(2) No person may violate the following specific water quality standards for waters classified E-4:

(a) the acute and chronic aquatic life standards in DEQ-7 apply;

(b) the designated uses of a receiving water body under a different classification must be fully maintained;

(c) the geometric mean number of *Escherichia coli* bacteria may not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples may not exceed 1,260 colony forming units per 100 milliliters during any 30-day period. Water quality criteria for *Escherichia coli* are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b). (History: 75-5-301, MCA; IMP, 75-5-301, MCA; NEW, 2002 MAR p. 2196, Eff. 8/16/02; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2017 MAR p. 602, Eff. 5/13/17.)

17.30.656 E-5 CLASSIFICATION STANDARDS (1) Waters classified E-5 are to be maintained suitable for agricultural purposes, secondary contact recreation, saline tolerant aquatic life, and wildlife.

(2) No person may violate the following specific water quality standards for waters classified E-5:

(a) the designated uses of a receiving water body under a different classification must be fully maintained;

(b) the geometric mean number of *Escherichia coli* bacteria may not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples may not exceed 1,260 colony forming units per 100 milliliters during any 30-day period. Water quality criteria for *Escherichia coli* are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b).

(3) Changes in the water quality must support existing and designated uses. (History: 75-5-301, MCA; IMP, 75-5-301, MCA; NEW, 2002 MAR p. 2196, Eff. 8/16/02; AMD, 2004 MAR p. 725, Eff. 4/9/04; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2017 MAR p. 602, Eff. 5/13/17.)

17.30.657 F-1 CLASSIFICATION STANDARDS (1) Waters classified F-1 are to be maintained suitable for secondary contact recreation, wildlife and aquatic life not including fish.

(2) No person may violate the following specific water quality standards for waters classified F-1:

(a) the aquatic life standards for priority pollutants listed in DEQ-7;

(b) the aquatic life standards for ammonia and other non-priority pollutants listed in DEQ-7, unless those standards are modified or removed based upon a use attainability analysis developed for a specific water body;

(c) the designated uses of a receiving water body under a different classification must be fully maintained;

(d) the geometric mean number of Escherichia coli bacteria may not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples may not exceed 1,260 colony forming units per 100 milliliters during any 30-day period.

Water quality criteria for Escherichia coli are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b). (History: 75-5-301, MCA; IMP, 75-5-301, MCA; NEW, 2002 MAR p. 2196, Eff. 8/16/02; AMD, 2004 MAR p. 725, Eff. 4/9/04; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2017 MAR p. 602, Eff. 5/13/17.)

17.30.658 G-1 CLASSIFICATION STANDARDS (REPEALED) (History: 75-5-301, MCA; IMP, 75-5-301, MCA; NEW, 2003 MAR p. 1274, Eff. 6/27/03; AMD, 2006 MAR p. 528, Eff. 2/24/06; REP, 2012 MAR p. 2060, Eff. 10/12/12.)

Rule 17.30.659 reserved

17.30.660 NUTRIENT STANDARDS VARIANCES (1) A person may apply to the department for a nutrient standards variance at any time following the board's adoption of base numeric nutrient standards. In addition to this rule, variances are subject to the procedures and requirements contained in Department Circular DEQ-12B (November 2019 edition).

(2) An application for a general variance must provide information demonstrating that the wastewater treatment facility meets the requirements of Department Circular DEQ-12B (November 2019 edition). The decision to grant the general variance must be reflected in the permit that is made available for public comment.

(3) An application for an individual variance must adequately demonstrate that there are no reasonable alternatives that eliminate the need for a variance and that attainment of the base numeric nutrient standards is precluded due to economic impacts or limits of technology, or both. If the demonstration relies upon economic impacts, the department shall consider any guidance developed by the department and the nutrient work group, as provided in 75-5-313(2), MCA.

(4) The department may approve the adoption of an individual variance that specifies interim effluent limits different from those contained in general variance limits contained in Department Circular DEQ-12B (November 2019 edition), if water quality modeling demonstrates that greater emphasis on the reduction of one nutrient may achieve similar water quality and biological improvements as would the equal reduction of both nitrogen and phosphorus. The variance must provide effluent limits that reflect the lowest effluent concentration that is feasible based on achieving the highest attainable condition for the receiving water. A person shall submit the proposed effluent limits and supporting data in an application for an individual nutrient variance under (3). A person who has an individual variance with effluent limits that are based on this section shall, in each subsequent triennial review of those limits conducted pursuant to 75-5-313(7), MCA, collect and submit water quality data to demonstrate whether the biological status of the receiving water continues to justify those effluent limits.

(5) The department shall review each application for an individual variance to determine whether a reasonable alternative, such as trading, a permit compliance schedule, a general variance, reuse, recharge, or land application would eliminate the need for an individual variance. If the department makes a preliminary finding that a reasonable alternative to approving an individual variance is available, the department shall consult with the applicant prior to making a final decision to approve or deny the individual variance.

(6) If, after consultation with the applicant, the department determines that no reasonable alternative to an individual variance exists, the department shall determine whether the information provided by the applicant pursuant to (3) adequately demonstrates that attaining the base numeric nutrient standards is not feasible. If the department finds that attaining the base numeric nutrient standards is not feasible, the department shall approve an individual variance, which will become effective and incorporated into the applicant's permit only after adoption by the department in a formal rulemaking proceeding.

(7) A variance is not needed in situations where a person complies with the waste load allocation established in an approved TMDL.

(8) The department adopts and incorporates by reference Department Circular DEQ-12B, entitled "Nutrient Standards Variances" (November 2019 edition), which provides procedures and requirements for nutrient standards variances. Copies of Department Circular DEQ-12B are available at the Department of Environmental Quality, 1520 East 6th Avenue, P.O. Box 200901, Helena, MT 59620-0901.

(9) If a court of competent jurisdiction determines that the United States Environmental Protection Agency's October 31, 2017 approval of the general variance is valid and lawful, then the incorporations by reference of the November 2019 edition of Department Circular DEQ-12B contained in this rule shall be void, and the May 2018 edition of Department Circular DEQ-12B shall contain the applicable general variance. If such contingency occurs, all references to the November 2019 edition of Department Circular DEQ-12B contained in this rule shall be stricken and shall be considered as replaced with the May 2018 edition. (History: 75-5-313, MCA; IMP, 75-5-313, MCA; NEW, 2014 MAR p. 1805, Eff. 8/8/14; AMD, 2017 MAR p. 871, Eff. 6/24/17; AMD, 2018 MAR p. 1110, Eff. 6/9/18; AMD, 2019 MAR p. 2100, Eff. 11/23/19.)

17.30.661 VARIANCE FROM STANDARD FOR WATER BODY

CONDITIONS (1) The department may grant to a permittee a variance from a water quality standard if the department determines in writing that the following conditions are met:

- (a) the standard is more stringent than the quality of the receiving water;
- (b) the condition in (a) exists because of anthropogenic contributions of the pollutant to the water body;
- (c) the condition in (a) cannot reasonably be expected to be remediated during the permit term for which the variance is sought;
- (d) the discharge to which the variance would apply would not materially contribute to the condition in (a); and
- (e) one of the demonstrations provided at 40 CFR 131.14(b)(2)(i)(A)(1), which is by this reference adopted and incorporated into this rule, applies.

(2) To obtain a variance, a permittee shall submit to the department an application that:

- (a) identifies the pollutant for which the variance is sought;
- (b) identifies the permittee by name, address, and telephone number;

(c) identifies the receiving water body;
(d) demonstrates to the department's satisfaction that the requirements of (1) are met; and

(e) proposes, with supporting documentation, a variance level that is:
(i) the highest attainable interim standard in the receiving stream;
(ii) the interim effluent condition that reflects the greatest pollutant reduction that is achievable; or

(iii) if no additional feasible pollutant control technology can be identified, the interim standard or effluent condition that reflects the greatest pollutant reduction achievable with the pollutant control technologies installed at the time the variance is submitted. For a variance under this paragraph (2)(e)(iii), the permittee shall prepare and implement a pollutant minimization plan that contains a structured set of activities to improve processes and pollutant controls that will prevent and reduce pollutant loading.

(3) The department shall review each application to determine whether a reasonable alternative is in place that would eliminate the need for the variance, including:

(a) a permit compliance schedule;
(b) reuse;
(c) a TMDL for the pollutant where the permittee is meeting the established waste load allocation; or

(d) other department actions.

(4) If the department makes a preliminary finding that a reasonable alternative to approving a variance is available, the department shall consult with the applicant prior to making a decision regarding the variance.

(5) If the department determines that no reasonable alternative to a variance exists, the department shall determine whether the information provided by the applicant meets the requirements of (1) and (2). If the department finds that the requirements of (1) and (2) are met, and that a variance is needed, the department shall approve the variance after conducting a hearing following no less than 45 days' notice to the public. All written or oral public comments related to the variance shall be presented to the department during this public comment period.

(6) Within 30 days after approval of the variance, the department shall submit the variance and any supporting documentation and analysis to EPA. The variance is not approved for federal Clean Water Act purposes until EPA notifies the department that the variance complies with the federal Clean Water Act, 33 USC 1251, et seq.

(7) The variance may be used to develop MPDES permit limits. A permit incorporating a variance issued by the department under this rule is subject to ARM Title 17, chapter 30, subchapter 13. The department shall review the variance five years from the date the department issues a final discharge permit incorporating the variance.

(8) The variance must be reviewed by the department every five years to reevaluate the conditions in (2)(e). Based on this review, the department may terminate, continue, or modify the variance. In order to continue or modify the variance, the permittee shall provide information demonstrating compliance with (1) and (2). In cases where water quality in the receiving stream has improved during the term of the variance, DEQ shall consider the ambient upstream condition of the waterbody, as characterized for the previous two years, in determining an appropriate variance level under (2)(e).

(9) Based on the review conducted under (8), the department may approve the variance, with any modifications after public comment and public hearing under (5). Within 30 days after department approval of the variance, the department shall submit the variance and any supporting analysis to EPA. The variance is not approved for federal Clean Water Act purposes until EPA notifies the department that the variance complies with the federal Clean Water Act, 33 USC 1251, et seq.

(10) A copy of 40 CFR 131.14(b)(2)(i)(A)(1) may be obtained from the Department of Environmental Quality, P.O. Box 200901, Helena, MT 59601-0901. (History: 75-5-222, MCA; IMP, 75-5-222, MCA; NEW, 2018 MAR p. 830, Eff. 4/28/18.)

Rules 17.30.662 through 17.30.669 reserved

17.30.670 NUMERIC STANDARDS FOR ELECTRICAL CONDUCTIVITY (EC) AND SODIUM ADSORPTION RATIO (SAR) (1) No person may violate the numeric water quality standards or the criteria for determining nonsignificant changes in water quality identified in (2) through (6).

(2) The numeric standards for electrical conductivity (EC) and sodium adsorption ratio (SAR) for the mainstems of Rosebud Creek, the Tongue, Powder, and Little Powder rivers from November 1 through March 1 are as follows:

(a) for Rosebud Creek and the Tongue River, the monthly average numeric water quality standard for EC is 1500 $\mu\text{S}/\text{cm}$ and no sample may exceed an EC value of 2500 $\mu\text{S}/\text{cm}$. The monthly average numeric water quality standard for SAR is 5.0 and no sample may exceed an SAR value of 7.5; and

(b) for the Powder River and the Little Powder River, the monthly average numeric water quality standard for EC is 2500 $\mu\text{S}/\text{cm}$ and no sample may exceed an EC value of 2500 $\mu\text{S}/\text{cm}$. The monthly average numeric water quality standard for SAR is 6.5 and no sample may exceed an SAR value of 9.75.

(3) The numeric standards for EC and SAR for the mainstems of Rosebud Creek, the Tongue, Powder, and Little Powder rivers from March 2 through October 31 are as follows:

(a) for Rosebud Creek and the Tongue River, the monthly average numeric water quality standard for EC is 1000 $\mu\text{S}/\text{cm}$ and no sample may exceed an EC value of 1500 $\mu\text{S}/\text{cm}$. The monthly average numeric water quality standard for SAR is 3.0 and no sample may exceed an SAR value of 4.5; and

(b) for the Powder River and Little Powder River, the monthly average numeric water quality standard for EC is 2000 $\mu\text{S}/\text{cm}$ and no sample may exceed an EC value of 2500 $\mu\text{S}/\text{cm}$. The monthly average numeric water quality standard for SAR is 5.0 and no sample may exceed an SAR value of 7.5.

(4) For all tributaries and other surface waters in the Rosebud Creek, Tongue, Powder, and Little Powder river watersheds, the monthly average numeric water quality standard for EC is 500 $\mu\text{S}/\text{cm}$ and no sample may exceed an EC value of 500 $\mu\text{S}/\text{cm}$. The monthly average numeric water quality standard for SAR from March 2 through October 31 is 3.0 and no sample may exceed an SAR value of 4.5. The monthly average numeric water quality standard for SAR from November 1 through March 1 is 5.0 and no sample may exceed an SAR value of 7.5.

(5) For the Tongue River Reservoir, the monthly average numeric water quality standard for EC is 1000 $\mu\text{S}/\text{cm}$ and no sample may exceed an EC value of 1500 $\mu\text{S}/\text{cm}$. The monthly average numeric water quality standard for SAR is 3.0 and no sample may exceed an SAR value of 4.5.

(6) EC and SAR are harmful parameters for the purposes of the Montana Water Quality Act, Title 75, chapter 5, MCA. (History: 75-5-301, 75-5-303, MCA; IMP, 75-5-301, 75-5-303, MCA; NEW, 2003 MAR p. 779, Eff. 4/25/03; AMD, 2006 MAR p. 1733, Eff. 5/19/06.)