## **LCB File No. R099-02**

# PROPOSED REGULATION OF THE STATE ENVIRONMENTAL COMMISSION

## Petition 2002-10 as submitted to Legislative Counsel Bureau on June 21, 2002

EXPLANATION – Matter in *italics* is new; matter in brackets formitted material is material to be omitted.

AUTHORITY: § § 1-4, NRS 445A.425 and 445A.520.

**Section 1.** Chapter 445A of NAC is hereby amended by adding thereto a new section as set forth as Section 2 of this regulation.

## Sec. 2. The water quality criteria for total ammonia are:

- 1. The one-hour average (acute criteria) concentration for total ammonia (in mg nitrogen per liter) for the protection of fresh water aquatic life are shown in Table 1.
- (1) Presence of Salmonid Fish (Cold Water Fishery). The concentration of total ammonia (in mg nitrogen per liter) may not exceed the acute criterion listed under "Salmonids Present" in Table 1, more than once every three years on the average.
- (2) Absence of Salmonid Fish (Warm Water Fishery). The concentration of total ammonia (in milligrams of nitrogen per liter) may not exceed the acute criterion listed under "Salmonids Absent" in Table 1, more than once every three years on the average.

	ACUTE AMMONIA WATER Q FRESHWATER AQUAT	TIC LIFE		
	(mg Nitrogen/L)	)		
pН	Salmonids Present1	Salmonids Absent2		
6.5	32.6	48.8		
6.6	31.3	46.8		
<b>6.7</b>	29.8	44.6		
6.8	28.1	42.0		
6.9	26.2	39.1		
7.0	24.1	36.1		
7.1	22.0	32.8		
7.2	19.7	29.5		
7.3	17.5	26.2		
7.4	15.4	23.0		
7.5	13.3	19.9		
7.6	11.4	17.0		
7.7	9.65	14.4		
7.8	8.11	12.1		
7.9	6.77	10.1		
8.0	5.62	8.40		
8.1	4.64	6.95		
8.2	3.83	5.72		
8.3	3.15	4.71		
8.4	2.59	3.88		
8.5	2.14	3.20		
8.6	1.77	2.65		

8.7	1.47	2.20
8.8	1.23	1.84
8.9	1.04	1.56
9.0	0.885	1 32

1 The acute water quality criteria for total ammonia where salmonids may be present were calculated using the following equation, which may also be used to calculate unlisted values:

Acute water quality criteria for ammonia (salmonids present) =

$$\left[\frac{0.275}{1+10^{7.204-pH}}\right]_{+} \left[\frac{39.0}{1+10^{pH-7.204}}\right]$$

2 The acute water quality criteria for total ammonia where salmonids are absent were calculated using the following equation, which may also be used to calculate unlisted values:

Acute water quality criteria for ammonia (salmonids absent) =

$$\left[\frac{0.411}{1+10^{7.204-pH}}\right]_{+} \left[\frac{58.4}{1+10^{pH-7.204}}\right]$$

#### **NOTES:**

pH and temperature are field measurements taken at the same time and location as the water sample destined for the laboratory analysis of ammonia.

If field measured pH and/or temperature values fall between the above tabular values, round field measured values according to standard rounding procedures to nearest tabular value to determine ammonia standard or use above described equations.

- 2. The thirty-day average (chronic criteria) concentration for total ammonia (in mg nitrogen per liter) for the protection of fresh water aquatic life are shown in Tables 2 and 3.
- (1) Averaging period. The concentration of total ammonia nitrogen (in mg of nitrogen per liter) expressed as a 30-day average shall not exceed the chronic criteria listed in Tables 2 and 3, more than once every three years on the average.
- (2) Use of Table 3 will require documentation acceptable to the Division of the absence of fish early life stages.
- (3) In addition, the highest 4-day average within the 30-day period should not exceed 2.5 times the chronic criterion.
- (4) Table 2: Chronic Ammonia Criteria For Waters Where Freshwater Fish Early Life Stages May Be Present (mg nitrogen per liter):

	TABLE 2. CHRONIC AMMONIA CRITERIA FOR WATERS WHERE FRESHWATER FISH EARLY LIFE STAGES MAY BE PRESENT									
	(mg Nitrogen/L)1									
		Temperature ( $\mathcal{C}$ )								
pН	0	14	16	18	20	22	24	26	28	30
6.5	6.67	6.67	6.06	5.33	4.68	4.12	3.62	3.18	2.80	2.46
6.6	6.57	6.57	5.97	5.25	4.61	4.05	3.56	3.13	2.75	2.42
6.7	6.44	6.44	5.86	5.15	4.52	3.98	3.50	3.07	2.70	2.37
6.8	6.29	6.29	5.72	5.03	4.42	3.89	3.42	3.00	2.64	2.32
6.9	6.12	6.12	5.56	4.89	4.30	3.78	3.32	2.92	2.57	2.25
7.0	5.91	5.91	5.37	4.72	4.15	3.65	3.21	2.82	2.48	2.18
7.1	5.67	5.67	5.15	4.53	3.98	3.50	3.08	2.70	2.38	2.09
7.2	5.39	5.39	4.90	4.31	3.78	3.33	2.92	2.57	2.26	1.99
7.3	5.08	5.08	4.61	4.06	3.57	3.13	2.76	2.42	2.13	1.87
7.4	4.73	4.73	4.30	3.78	3.32	2.92	2.57	2.26	1.98	1.74
7.5	4.36	4.36	3.97	3.49	3.06	2.69	2.37	2.08	1.83	1.61
7.6	3.98	3.98	3.61	3.18	2.79	2.45	2.16	1.90	1.67	1.47
7.7	3.58	3.58	3.25	2.86	2.51	2.21	1.94	1.71	1.50	1.32

7.8	3.18	3.18	2.89	2.54	2.23	1.96	1.73	1.52	1.33	1.17
<b>7.9</b>	2.8	2.80	2.54	2.24	1.96	1.73	1.52	1.33	1.17	1.03
<b>8.0</b>	2.43	2.43	2.21	1.94	1.71	1.50	1.32	1.16	1.02	0.897
<b>8.1</b>	2.10	2.10	1.91	1.68	1.47	1.29	1.14	1.00	0.879	0.773
8.2	1.79	1.79	1.63	1.43	1.26	1.11	0.973	0.855	0.752	0.661
<b>8.3</b>	1.52	1.52	1.39	1.22	<i>1.07</i>	0.941	0.827	0.727	0.639	0.562
8.4	1.29	1.29	1.17	1.03	0.906	0.796	0.700	0.615	0.541	0.475
8.5	1.09	1.09	0.990	0.870	0.765	0.672	0.591	0.520	0.457	0.401
8.6	0.920	0.920	0.836	0.735	0.646	0.568	0.499	0.439	0.386	0.339
<b>8.7</b>	0.778	0.778	0.707	0.622	0.547	0.480	0.422	0.371	0.326	0.287
8.8	0.661	0.661	0.601	0.528	0.464	0.408	0.359	0.315	0.277	0.244
8.9	0.565	0.565	0.513	0.451	0.397	0.349	0.306	0.269	0.237	0.208
9.0	0.486	0.486	0.442	0.389	0.342	0.300	0.264	0.232	0.204	0.179

<sup>1</sup> The freshwater chronic water quality criteria for total ammonia where fish early life stages may be present were calculated using the following equation, which may also be used to calculate unlisted values:

Freshwater chronic water quality criterion for ammonia (fish early life stages present) =

$$\left[ \frac{0.0577}{(1+10^{7.688-pH})} + \frac{2.487}{(1+10^{pH-7.688})} \right] \times_{MIN} [2.85, 1.45 \times 10^{0.028 \times (25-T)}] \text{ where } T = \text{C.}$$

#### **NOTES:**

pH and temperature are field measurements taken at the same time and location as the water sample destined for the laboratory analysis of ammonia.

If field measured pH and/or temperature values fall between the above tabular values, round field measured values according to standard rounding procedures to nearest tabular value to determine ammonia standard or use above described equation.

(4) Table 3: Chronic Ammonia Criteria For Waters Where Freshwater Fish Early Life Stages Are Absent (mg nitrogen per liter):

	TABLE 3. CHRONIC AMMONIA CRITERIA FOR WATERS WHERE FRESHWATER FISH EARLY LIFE STAGES ARE ABSENT									
	(mg Nitrogen/L)1									
	Temperature (°C)									
pН	0-7	8	9	10	11	12	13	14	152	162
6.5	10.8	10.1	9.51	8.92	8.36	7.84	7.35	6.89	6.46	6.06
6.6	10.7	9.99	9.37	8.79	8.24	7.72	7.24	6.79	6.36	5.97
6.7	10.5	9.81	9.20	8.62	8.08	7.58	7.11	6.66	6.25	5.86
6.8	10.2	9.58	8.98	8.42	7.90	7.40	6.94	6.51	6.10	5.72
6.9	9.93	9.31	8.73	8.19	7.68	7.20	6.75	6.33	5.93	5.56
7.0	9.60	9.00	8.43	7.91	7.41	6.95	6.52	6.11	5.73	5.37
7.1	9.20	<b>8.63</b>	8.09	7.58	7.11	6.67	6.25	5.86	5.49	5.15
7.2	8.75	8.20	7.69	7.21	6.76	6.34	5.94	5.57	5.22	4.90
7.3	8.24	7.73	7.25	6.79	6.37	5.97	5.60	5.25	4.92	4.61
7.4	7.69	7.21	6.76	6.33	5.94	5.57	5.22	4.89	4.59	4.30
7.5	7.09	6.64	6.23	5.84	5.48	5.13	4.81	4.51	4.23	3.97
7.6	6.46	6.05	5.67	5.32	4.99	4.68	4.38	4.11	3.85	3.61
7.7	5.81	5.45	5.11	4.79	4.49	4.21	3.95	3.70	3.47	3.25
7.8	5.17	4.84	4.54	4.26	3.99	3.74	3.51	3.29	3.09	2.89

X Indicates multiplication. MIN indicates the lesser of the two values separated by a comma.

7.9	4.54	4.26	3.99	3.74	3.51	3.29	3.09	2.89	2.71	2.54
8.0	3.95	3.70	3.47	3.26	3.05	2.86	2.68	2.52	2.36	2.21
<b>8.1</b>	3.41	3.19	2.99	2.81	2.63	2.47	2.31	2.17	2.03	1.91
8.2	2.91	2.73	2.56	2.40	2.25	2.11	1.98	1.85	1.74	1.63
8.3	2.47	2.32	2.18	2.04	1.91	1.79	1.68	1.58	1.48	1.39
<b>8.4</b>	2.09	1.96	1.84	1.73	1.62	1.52	1.42	1.33	1.25	1.17
8.5	1.77	1.66	1.55	1.46	1.37	1.28	1.20	1.13	1.06	0.990
8.6	1.49	1.40	1.31	1.23	1.15	1.08	1.01	0.951	0.892	0.836
<b>8.7</b>	1.26	1.18	1.11	1.04	0.976	0.915	0.858	0.805	0.754	0.707
8.8	1.07	1.01	0.944	0.885	0.829	0.778	0.729	0.684	0.641	0.601
<b>8.9</b>	0.917	0.860	0.806	0.756	0.709	0.664	0.623	0.584	0.548	0.513
9.0	0.790	0.740	0.694	0.651	0.610	0.572	0.536	0.503	0.471	0.442

1 The freshwater chronic water quality criteria for total ammonia where fish early life stages are absent were calculated using the following equation, which may also be used to calculate unlisted values:

Freshwater chronic water quality criterion for ammonia (fish early life stages absent) =

$$\left[\begin{array}{c} \frac{0.0577}{(1+10^{7.688-pH})} + \frac{2.487}{(1+10^{pH-7.688})} \end{array}\right] \times 1.45 \times \left[10^{0.028 \times (25-MAX(T,7))}\right] \ \textit{where $T = $\mathfrak{C}$.}$$

2At 15°C and above, the criterion for fish early life stages absent is the same as the criterion for fish early life stages present.

#### **NOTES:**

pH and temperature are field measurements taken at the same time and location as the water sample destined for the laboratory analysis of ammonia.

If field measured pH and/or temperature values fall between the above tabular values, round field measured values according to standard rounding procedures to nearest tabular value to determine ammonia standard or use above described equation.

**Sec. 3.** NAC 445A.119 is hereby amended to read as follows:

NAC 445A.119

## Standards for Water Quality

Criteria for water quality for designated beneficial uses. The water quality criteria for designated beneficial uses for the various waters of the state are in the following table. The criteria are water quality characteristics based upon available scientific and technical information and are to be used as guidelines in establishing water quality standards.

<sup>×</sup> Indicates multiplication. MAX indicates the greater of the two values separated by a comma.

# WATER QUALITY CRITERIA FOR DESIGNATED BENEFICIAL USES [2] 4

Beneficial Uses			cultural Jse	Colo Wate	1	tic Life Warm Water						
Parameter		Irrigation	Watering of Livestock	Propa- gation	Put & Take	Propa- gation	Put & Take	Water Contact Recreation	Non-Contact Recreation	Municipal or Domestic Supply	Industrial Supply Supply	Propagation of Wildlife
Temperature °C		х	X	<	- Site Specific	Determination	a,b>	[15-34 a] 10-35 a	x	x	x	x
pH Units Single Value		4.5-9.0 <sup>a</sup> [b]	5.0-9.0 <sup>b</sup>	[6.5-9.0 b] 6.5-9.0 a	[6.5-9.0 b] 6.5-9.0 a	[6.5-9.0 b] 6.5-9.0 a	[6.5-9.0 b] 6.5-9.0 a	[6.5-8.3 a] 6.5-9.0 a	x	5.0-9.0 <b>a</b>	3.0-11.7 <del>[b]</del> a	[7.0-9.2 a] 6.5-9.0 a
Dissolved Oxygen Single Value-mg/l	>	х	Aerobic <sup>b</sup>	5.0 <del>[b]</del> a	5.0 <del>[b]</del> a	5.0 <del>[b]</del> a	5.0 <del>[b]</del> a	Aerobic <sup>b</sup>	Aerobic <sup>b</sup>	Aerobic <sup>b</sup>	x	Aerobic <sup>b</sup>
Chlorides Single Value-mg/l	<	y <sup>a</sup>	1500 <sup>f</sup>	[x] 230 c	[x] 230 c	[x] 230 c	[x] 230 c	х	х	250 <b>a</b> /400 °		1500 <sup>f</sup>
Total Phosphates as P Single Value-mg/l		Х	x	<	 I	 	Site Specific	Determination [b,e	<del>]</del> a	> I	x	x
Nitrates as N Single Value-mg/l	<	X	100 <del>[a]</del> <b>b</b>	y <del>[b]</del> a	X	90 <del>[b]</del> a	90 <del>[b]</del> a	х	x	10 <del>[b,c]</del> a	x	100 <del>[a]</del> <b>b</b>
Nitrites as N Single Value-mg/l	<	х	10 <del>[a]</del> b	0.06 <del>[b]</del> a	0.06 <del>[b]</del> a	<del>[x]</del> 5 a	[x] 5 a	Х	x	1.0 <sup>a,</sup> [b]	x	10 <del>[a]</del> <b>b</b>
Total Nitrogen as N Single Value-mg/l		Х	x	<			Site Specific	Determination [b,e	<del>e]</del> a		x	x
[Un-ionized Ammonia as NH 3 Single Value-mg/l]	<	<del>[x]</del>	<del>[x]</del>	[0.02 b,e]	[ <site s<="" td=""><td>pecific Determ</td><td>ination&gt;]</td><td>[x]</td><td><del>[x]</del></td><td>[0.5] [(Total NH 3-N) ]</td><td><del>[x]</del></td><td><del>[x]</del></td></site>	pecific Determ	ination>]	[x]	<del>[x]</del>	[0.5] [(Total NH 3-N) ]	<del>[x]</del>	<del>[x]</del>
Total Ammonia as N Single Value (mg/L)	<	x	x	<site sp<br="">Freshwate</site>	pecific Determ er Criteria are p	ination (Footn oH and Temp.)	ote 1)> Dependent	x	x	0.5 b	x	x
Total Dissolved Solids Single Value-mg/l	<	[x] 500-1000 a	3000 [a] b	x	х	x	x	X	X	500 a /1000 [c] d	x	x
Color (PT-CO), Single Value	<	х	x	x	х	х	x	x	X	75 <sup>b</sup>	x	x
Turbidity, Single Value-NTU	<	x	x	10 <del>[d]</del> e	10 <del>[d]</del> e	50 <del>[d]</del> e	50 <del>[d]</del> e	x	x	y <del>[b]</del> <i>a</i>	x	x
Fecal Coliform (MF/100ml) Geometric Mean Single Value	< <b>&lt;</b>	See x 1000 [a] b	<b>Footnote 2</b> x 1000 [a] b	х <b>х</b>	х <b>х</b>	х <b>х</b>	х <b>х</b>	[200/400 b] 200 b 400 b	[1000/2000 d] 1000 [d] e 2000 [d] e	x 2000 <del>[a]</del> b	<i>x</i> x	x 1000 <del>[a]</del> b
E.Coli (MF/100 ml)		See	Footnote 3									
Geometeric Mean Single Value	< <	<i>x x</i>	x x	x x	<i>x x</i>	<i>x x</i>	x x	126 a 235 - 576 a	630 a x	x x	x x	x x
Alkalinity as C <sub>a</sub> CO <sub>3</sub> Single Value-mg/l		х	x	Less than	25% change fro	om natural con	ditions <sup>a</sup> [e]	x	x	x	x	30-130 [a] b
Suspended Solids Single Value-mg/l	<	X	X	25-80 [a] b	25-80 [a]	25-80 [a]	25-80 [a] b	x	x	x	x	x
Sulfate Single Value-mg/l	<	X	X	x	X	x	x	X	X	250 [b,c] a/500 [c]d	x	х

#### FOOTNOTES AND REFERENCES

- < means less than
- > means greater than
- x means a specific recommendation has not been developed.
- y means the cited reference recommended no value be established.
- (1) U.S. Environmental Protection Agency, Pub. No. EPA 822-R-99-014, 1999 Update of Ambient Water Quality Criteria for Ammonia (December 1999). Office of Water, Washington, D.C.

### Total Ammonia Aquatic Life Criteria are specified in Section 3 of this regulation.

- [(1)] (2) Based on a minimum of five samples taken over a 30-day period, the fecal coliform bacterial level must not exceed a log mean of 200 per 100 ml nor may more than 10 *percent* of the total samples taken during any 30-day period exceed 400 per 100 ml.
- (3) Recommended E. Coli water quality criteria requires that the geometric mean calculated over annual basis to not exceed the criteria and the single sample maximum to be met for a waterbody to be fully supportive of its intended use. The single sample maximum E. Coli value for Water Contact Recreation varies depending on the degree of use. For Non-Contact Recreation, E. Coli levels should not exceed five times EPA's recommended geometric mean water quality criteria for bacteria.
- [(2)] (4) The table is not *all*-inclusive. As the need arises and data becomes available, appropriate revisions and additions will be made.
- a. U.S. Environmental Protection Agency, Pub. No. EPA 440/5-86-001, Quality Criteria for Water (Gold Book) (1986). Office of Water and Hazardous Materials, Washington, D.C.
  - [a.] b. National Academy of Sciences, Water Quality Criteria (Blue Book) (1972).
- [b. U.S. Environmental Protection Agency, Pub. No. EPA 440/9-76-023, Quality Criteria for Water (1976). Office of Water and Hazardous Materials, Washington, D.C.]
- c. U.S. Environmental Protection Agency, National Recommended Water Quality Criteria, Federal Register, December 10, 1998.
- [c. Nevada Division of Health, Water Supply Regulation, Part I, Water Quality Standards, Monitoring, Record Keeping and Reporting (1977). State Board of Health, Carson City, Nevada.]
- d. State of Nevada, Health Division, BHPS, NAC 445A.455, Secondary Drinking Water Standards.
  - [d.] e. Report of the *Commission* on Water Quality Criteria (FWPCA) (Green Book) (1968).
- [e. American Fisheries Society, Water Quality Section, A Review of the EPA Red Book; Quality Criteria for Water (1979).]
- f. McKee and Wolf, California State Water Resources Control Board, Water Quality Criteria (1963).

## **Sec. 4.** NAC 445A.147 is hereby amended to read as follows: NAC 445A.147

#### STANDARDS OF WATER QUALITY Carson River

Control Point at the West Fork at the state line. The limits of this table apply only to the West Fork at the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum		NovMay: ≤13°C June: ≤17°C July: ≤21°C AugOct.: ≤22°C	Aquatic life <sup>b</sup> and water contact recreation.
$\Delta T^{a}$	$\Delta T = 0$ °C	ΔT ≤2°C	
pH Units	7.4 - 8.4	S.V.: 6.5 - 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg.: ≤.016 S.V.: ≤.033	A-Avg.: ≤0.10	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	A-Avg.: ≤0.4 S.V.: ≤0.5	Nitrate S.V.: ≤10 Nitrite S.V.: ≤.06 [Ammonia S.V.: ≤.02 (un_ionized)]	Aquatic life <sup>b</sup> , municipal or domestic supply <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Total Ammonia (as N) - mg/l		e	Aquatic lifeb.
Dissolved Oxygen - mg/l	 	S.V.: NovMay: ≥6.0 JunOct.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	A-Avg.: ≤15 	S.V.: ≤25	Aquatic life <sup>b</sup> .
Turbidity - NTU	A-Avg.: ≤3 S.V.: ≤5	S.V.: ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: ≤75	Municipal or domestic supply <sup>b</sup> .
Total Dissolved Solids - mg/l	A-Avg.: ≤70 S.V.: ≤95	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: ≤3 S.V.: ≤5	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	 S.V.: ≤4	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: ≤1	A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l		less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: ≤105 	≤200/400°	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.

Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

The most restrictive beneficial use.

Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
Increase in color must not be more than 10 PCU above natural conditions.

e. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## Sec. 5. NAC 445A.148 is hereby amended to read as follows:

## NAC 445A.148

#### STANDARDS OF WATER QUALITY Carson River

Control Point at Bryant Creek near the state line. The limits of this table apply only to Bryant Creek near the state line.

t	+		<u> </u>
PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum	15.000	NovMay: ≤13°C June: ≤17°C July: ≤21°C AugOct.: ≤22°C	Aquatic life <sup>b</sup> and water contact recreation.
$\Delta T^a$	$\Delta T = 0^{\circ}C$	ΔT ≤2°C	
pH Units		S.V.: 6.5 - 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg.: ≤.036 S.V.: ≤.05	A-Avg.: ≤0.10	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	A-Avg.: ≤0.6 S.V.: ≤1.0	Nitrate S.V.: ≤10 Nitrite S.V.: ≤.06 [Ammonia S.V.: ≤.02 (un ionized)]	Aquatic life <sup>b</sup> , municipal or domestic supply <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Total Ammonia (as N) - mg/l		e	Aquatic lifeb.
Dissolved Oxygen - mg/l		S.V.: NovMay: ≥6.0 JunOct.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l		S.V.: ≤25	Aquatic life <sup>b</sup> .
Turbidity - NTU		S.V.: ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: ≤75	Municipal or domestic supply <sup>b</sup> .
Total Dissolved Solids - mg/l	A-Avg.: ≤375 S.V.: ≤420	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: ≤6 S.V.: ≤7	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l		S.V.: ≤250	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: ≤1	A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as CaCO 3) - mg/l		less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: ≤50 S.V.: ≤90	≤200/400°	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.

Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard. The most restrictive beneficial use.

- c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
   d. Increase in color must not be more than 10 PCU above natural conditions.
- e. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 6.** NAC 445A.149 is hereby amended to read as follows:

## NAC 445A.149

#### STANDARDS OF WATER QUALITY Carson River

Control Point at the East Fork at the state line. The limits of this table apply only to the East Fork at the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum	45, 000	NovMay: ≤13°C June: ≤17°C July: ≤21°C AugOct.: ≤22°C	Aquatic life <sup>b</sup> and water contact recreation.
$\Delta T^{a}$	$\Delta T = 0$ °C	ΔT ≤2°C	
pH Units		S.V.: 6.5 - 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg.: ≤.03 S.V.: ≤.065	A-Avg.: ≤0.10	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: ≤0.5 S.V.: ≤1.1	Nitrate S.V.: ≤10 Nitrite S.V.: ≤.06 [Ammonia S.V.: ≤.02 (un ionized)]	Aquatic life <sup>b</sup> , municipal or domestic supply <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Total Ammonia (as N) - mg/l		e	Aquatic lifeb.
Dissolved Oxygen - mg/l		S.V.: NovMay: ≥6.0 JunOct.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l		S.V.: ≤25	Aquatic life <sup>b</sup> .
Turbidity - NTU	A-Avg.: ≤5 S.V.: ≤8	S.V.: ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	D	S.V.: ≤75	Municipal or domestic supply <sup>b</sup> .
Total Dissolved Solids - mg/l	A-Avg.: ≤145 S.V.: ≤185	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: ≤3 S.V.: ≤5	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	 S.V.: ≤3	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: ≤2	A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l		less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: ≤40 S.V.: ≤60	≤200/400°	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard. The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 7.** NAC 445A.150 is hereby amended to read as follows:

NAC 445A.150

#### STANDARDS OF WATER OUALITY Carson River

Control Point for East Fork at Highway 395, South of Gardnerville (Riverview). The limits of this table apply from Riverview Mobile Home Park to the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum	$\Delta T = 0$ °C	NovMay: ≤13°C June: ≤17°C July: ≤21°C AugOct.: ≤22°C ΔT ≤2°C	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	7.5 - 8.6	S.V.: 6.5 - 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l		A-Avg.: ≤0.10	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: ≤0.4 S.V.: ≤0.5	Nitrate S.V.: ≤10 Nitrite S.V.: ≤.06 [Ammonia S.V.: ≤.02 (un ionized)]	Aquatic life <sup>b</sup> , municipal or domestic supply <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Total Ammonia (as N) - mg/l		e	Aquatic lifeb.
Dissolved Oxygen - mg/l	 	S.V.: NovMay: ≥6.0 JunOct.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l		S.V.: ≤80	Aquatic life <sup>b</sup> .
Turbidity - NTU		S.V.: ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: ≤75	Municipal or domestic supply <sup>b</sup> .
Total Dissolved Solids - mg/l	A-Avg.: ≤120 S.V.: ≤175	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: ≤6 S.V.: ≤10	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l		S.V.: ≤250	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: ≤2	A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l		less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.

Fecal Coliform- No./100 ml	A.G.M.: ≤20 S.V.: ≤85	≤200/400°	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. The most restrictive beneficial use.
- c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- d. Increase in color must not be more than 10 PCU above natural conditions.
- e. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 8.** NAC 445A.151 is hereby amended to read as follows:

## NAC 445A.151

## STANDARDS OF WATER QUALITY Carson River

Control Point at the East Fork at Muller Lane. The limits of this table apply only from East Fork at Muller Lane to Highway 395, South of Gardnerville (Riverview Mobile Home Park).

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature $^{\circ}$ C-Maximum $\Delta T^{a}$	$\Delta T = 0$ °C	NovMay: ≤13°C June: ≤17°C July: ≤21°C AugOct.: ≤22°C ΔT ≤2°C	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	7.4 - 8.7	S.V.: 6.5 - 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l		A-Avg.: ≤0.10	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: ≤0.5 S.V.: ≤0.8	Nitrate S.V.: ≤10 Nitrite S.V.: ≤.06 [Ammonia S.V.: ≤.02 (un_ionized)]	Aquatic life <sup>b</sup> , municipal or domestic supply <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Total Ammonia (as N) - mg/l		e	Aquatic lifeb.
Dissolved Oxygen - mg/l	 	S.V.: NovMay: ≥6.0 JunOct.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l		S.V.: ≤80	Aquatic life <sup>b</sup> .
Turbidity - NTU		S.V.: ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: ≤75	Municipal or domestic supply <sup>b</sup> .
Total Dissolved Solids - mg/l	A-Avg.: ≤180 S.V.: ≤205	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: ≤8 S.V.: ≤10	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.

Sulfate - mg/l		S.V.: ≤250	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: ≤2	A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as CaCO 3) - mg/l	 	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: ≤50 	≤200/400°	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. The most restrictive beneficial use.
- c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- d. Increase in color must not be more than 10 PCU above natural conditions.
- e. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 9.** NAC 445A.152 is hereby amended to read as follows:

## NAC 445A.152

## STANDARDS OF WATER QUALITY Carson River

Control Point at Genoa Lane. The limits of this table apply from Genoa Lane to the East Fork at Muller Lane and to the West Fork at the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum ΔΤ <sup>a</sup>	$\Delta T = 0$ °C	NovApr: ≤13°C May-June: ≤17°C JulOct.: ≤23°C ΔT ≤2°C	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	7.4 - 8.5	S.V.: 6.5 - 9.0 ДрН: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	 	A-Avg.: ≤0.10	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: ≤0.8 S.V.: ≤1.3	Nitrate S.V.: ≤10 Nitrite S.V.: ≤.06 [Ammonia S.V.: ≤.02 (un_ionized)]	Aquatic life <sup>b</sup> , municipal or domestic supply <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Total Ammonia (as N) - mg/l		e	Aquatic lifeb.
Dissolved Oxygen - mg/l	 	S.V.: NovApr.: ≥6.0 May-Oct.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	 	S.V.: ≤80	Aquatic life <sup>b</sup> .
Turbidity - NTU		S.V.: ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: ≤75	Municipal or domestic supply <sup>b</sup> .

Total Dissolved Solids - mg/l	A-Avg.: ≤165 S.V.: ≤220	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: ≤8 S.V.: ≤12	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	 	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: ≤2	A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as CaCO 3) - mg/l		less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: ≤180 	≤200/400°	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

## **Sec. 10.** NAC 445A.153 is hereby amended to read as follows:

NAC 445A.153

#### STANDARDS OF WATER QUALITY Carson River

Control Point at Cradlebaugh Bridge. The limits of this table apply from Cradlebaugh Bridge to Genoa Lane.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum ΔT <sup>a</sup>	$\Delta T = 0$ °C	NovApr: ≤13°C May-June: ≤17°C JulOct.: ≤23°C ΔT ≤2°C	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	7.5 - 8.4	S.V.: 6.5 - 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	 	A-Avg.: ≤0.10	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: ≤.85 S.V.: ≤1.2	Nitrate S.V.: ≤10 Nitrite S.V.: ≤.06 [Ammonia S.V.: ≤.02 (un_ionized)]	Aquatic life <sup>b</sup> , municipal or domestic supply <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Total Ammonia (as N) - mg/l		e	Aquatic lifeb.
Dissolved Oxygen - mg/l		S.V.: NovApr.: ≥6.0 May-Oct.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l		S.V.: ≤80	Aquatic life <sup>b</sup> .
Turbidity - NTU		S.V.: ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.

b. The most restrictive beneficial use.

c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

d. Increase in color must not be more than 10 PCU above natural conditions.

e. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

Color - PCU	d	S.V.: ≤75	Municipal or domestic supply <sup>b</sup> .
Total Dissolved Solids - mg/l	A-Avg.: ≤180 S.V.: ≤230	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: ≤8 S.V.: ≤15	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l		S.V.: ≤250	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: ≤2	A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l		less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml		≤200/400°	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. The most restrictive beneficial use.
- c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- d. Increase in color must not be more than 10 PCU above natural conditions.
- e. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 11.** NAC 445A.154 is hereby amended to read as follows:

#### NAC 445A.154

## STANDARDS OF WATER QUALITY Carson River

Control Point at Mexican Ditch Gage. The limits of this table apply from Mexican Ditch Gage to Highway 395, at Cradlebaugh Bridge.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum ΔΤ <sup>a</sup>	$\Delta T = 0$ °C	NovApr.: ≤13°C May-June: ≤17°C JulOct.: ≤23°C ΔT ≤2°C	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	7.4 - 8.5	S.V.: 6.5 - 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	 	A-Avg.: ≤0.10	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) – mg/l	Total Nitrogen A-Avg.: ≤0.8 S.V.: ≤1.3	Nitrate S.V.: ≤10 Nitrite S.V.: ≤.06 [Ammonia S.V.: ≤.02 (un_ionized)]	Aquatic life <sup>b</sup> , municipal or domestic supply <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Total Ammonia (as N) - mg/l		e	Aquatic lifeb.
Dissolved Oxygen - mg/l		S.V.: NovApr.: ≥6.0 May-Oct.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.

Suspended Solids - mg/l	 	S.V.: ≤80	Aquatic life <sup>b</sup> .
Turbidity - NTU	 	S.V.: ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: ≤75	Municipal or domestic supply <sup>b</sup> .
Total Dissolved Solids - mg/l	A-Avg.: ≤285 S.V.: ≤360	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: ≤17 S.V.: ≤23	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	A-Avg.: ≤24 S.V.: ≤100	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: ≤2	A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l		less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: ≤110 S.V.: ≤295	≤200/400°	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

## **Sec. 12.** NAC 445A.155 is hereby amended to read as follows:

## NAC 445A.155

#### STANDARDS OF WATER QUALITY Carson River

Control Point near New Empire. The limits of this table apply from New Empire to the Mexican Ditch Gage.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum		NovMay: ≤18°C Jun.Oct.: ≤23°C	Aquatic life <sup>b</sup> and water contact recreation.
$\Delta T^a$	$\Delta T = 0^{\circ}C$	ΔT ≤2°C	
pH Units	7.4 - 8.4	S.V.: 6.5 - 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	 	A-Avg.: ≤0.10	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) – mg/l	Total Nitrogen A-Avg.: ≤1.3 S.V.: ≤1.7	Nitrate S.V.: ≤10 Nitrite S.V.: ≤.06 [Ammonia S.V.: ≤.02 (un ionized)]	Aquatic life <sup>b</sup> , municipal or domestic supply <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Total Ammonia (as N) - mg/l		e	Aquatic lifeb.

b. The most restrictive beneficial use.

c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

d. Increase in color must not be more than 10 PCU above natural conditions.

e. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

Dissolved Oxygen - mg/l		S.V.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l		S.V.: ≤80	Aquatic life <sup>b</sup> .
Turbidity - NTU		S.V.: ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: ≤75	Municipal or domestic supply <sup>b</sup> .
Total Dissolved Solids - mg/l	A-Avg.: ≤260 S.V.: ≤375	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: ≤13 S.V.: ≤24	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l		S.V.: ≤250	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: ≤2	A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l	 	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml		≤200/400°	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

## **Sec. 13.** NAC 445A.156 is hereby amended to read as follows:

## NAC 445A.156

#### STANDARDS OF WATER QUALITY Carson River

Control Point at Dayton Bridge. The limits of this table apply from Dayton Bridge to New Empire.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum ΔT <sup>a</sup>	$\Delta T = 0$ °C	NovMar: ≤11°C AprJun.: ≤24°C JulOct.: ≤28°C ΔT ≤2°C	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	7.5 - 8.6	S.V.: 6.5 - 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l		A-Avg.: ≤0.1	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) – mg/l	Total Nitrogen A-Avg.: ≤1.2 S.V.: ≤1.6	Nitrate S.V.: ≤10 Nitrite S.V.: ≤.1.0 [Ammonia S.V.: ≤.02 (un_ionized)]	Aquatic life <sup>b</sup> , municipal or domestic supply <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.

The most restrictive beneficial use.

c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.

e. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

	1	1	
Total Ammonia (as N) - mg/l		e	Aquatic lifeb.
Dissolved Oxygen - mg/l		S.V.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	 	S.V.: ≤80	Aquatic life <sup>b</sup> .
Turbidity - NTU	A-Avg.: ≤12 S.V.: ≤25	S.V.: ≤50	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: ≤75	Municipal or domestic supply <sup>b</sup> .
Total Dissolved Solids - mg/l	A-Avg.: ≤250 S.V.: ≤400	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: ≤10 S.V.: ≤18	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	 	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: ≤2	A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l	 	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: ≤50 S.V.: ≤280	≤200/400°	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

## **Sec. 14.** NAC 445A.157 is hereby amended to read as follows:

NAC 445A.157

#### STANDARDS OF WATER QUALITY Carson River

Control Point at Weeks (Ft. Churchill). The limits of this table apply from the U.S. Highway 95 Bridge at Weeks to the Dayton Bridge.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum ΔΤ <sup>a</sup>	$\Delta T = 0$ °C	NovMar.: ≤11°C AprJun.: ≤24°C JulOct.: ≤28°C ΔT ≤2°C	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	7.5 - 8.5	S.V.: 6.5 - 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	 	A-Avg.: ≤0.1	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species	Total Nitrogen	Nitrate S.V.: ≤10	Aquatic life <sup>b</sup> , municipal or domestic supply <sup>b</sup> , water

b. The most restrictive beneficial use.

c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

d. Increase in color must not be more than 10 PCU above natural conditions.

e. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

(N) – mg/l	A-Avg.: ≤0.6 S.V.: ≤1.1	Nitrite S.V.: ≤.1.0 [Ammonia S.V.: ≤.02 (un ionized)]	contact recreation, stock watering, wildlife propagation and noncontact recreation.
Total Ammonia (as N) - mg/l		e	Aquatic lifeb.
Dissolved Oxygen - mg/l	 	S.V.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l		S.V.: ≤80	Aquatic life <sup>b</sup> .
Turbidity - NTU	A-Avg.: ≤25	S.V.: ≤50	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: ≤75	Municipal or domestic supply <sup>b</sup> .
Total Dissolved Solids - mg/l	A-Avg.: ≤250 S.V.: ≤380	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: ≤10 S.V.: ≤18	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	A-Avg.: ≤100 S.V.: ≤140	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: ≤2	A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l		less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: ≤90 S.V.: ≤240	≤200/400°	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

## **Sec. 15.** NAC 445A.158 is hereby amended to read as follows:

NAC 445A.158

#### STANDARDS OF WATER QUALITY Carson River

Control Point at Lahontan Dam. The limits of this table apply from Lahontan Dam to the U.S. Highway 95 bridge at Weeks (Ft. Churchill).

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum ΔT <sup>a</sup>	$\Delta T = 0$ °C	NovMar.: ≤11°C AprJun.: ≤24°C JulOct.: ≤28°C ΔT ≤2°C	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	 	S.V.: <del>[7.0 8.3]</del> 6.5 – 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.

b. The most restrictive beneficial use.

c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

d. Increase in color must not be more than 10 PCU above natural conditions.

e. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

Total Phosphates (as P) - mg/l		S.V.: ≤0.06	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) – mg/l	Total Nitrogen A-Avg.: ≤1.3 S.V.: ≤1.7	Nitrate S.V.: ≤10 Nitrite S.V.: ≤1.0 [Ammonia S.V.: ≤.02 (un_ionized)]	Aquatic life <sup>b</sup> , municipal or domestic supply <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Total Ammonia (as N) - mg/l		e	Aquatic lifeb.
Dissolved Oxygen - mg/l		S.V.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l		S.V.: ≤25	Aquatic life <sup>b</sup> .
Turbidity - NTU	A-Avg.: ≤15 S.V.: ≤27	S.V.: ≤50	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: ≤75	Municipal or domestic supply <sup>b</sup> .
Total Dissolved Solids - mg/l	A-Avg.: ≤175 S.V.: ≤225	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: ≤9 S.V.: ≤15	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	A-Avg.: ≤35 S.V.: ≤50	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: ≤2	A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l		less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: ≤25 S.V.: ≤75	≤200/400°	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤235	Water contact recreationb and noncontact recreation.

Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

## **Sec. 16.** NAC 445A.160 is hereby amended to read as follows:

NAC 445A.160

#### STANDARDS OF WATER QUALITY West Walker River

Control Point at the West Walker River at the state line. The limits of this table apply only to the West Walker River at the state

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most stringent use listed first)
Temperature Single Value	July-Oct.: $\leq$ 22°C $\Delta T = 0$ °C <sup>a</sup>	NovApr.: ≤13°C May-Jun.: ≤17°C JulOct.: ≤23°C ΔT ≤2°C <sup>a</sup>	Propagation of aquatic life and recreation involving contact with the water.

The most restrictive beneficial use.

Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

Increase in color must not be more than 10 PCU above natural conditions.

The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

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pH Single Value		Within range 6.5 – 9.0 SU ΔpH: ±0.5 SU Max.	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average		≤0.1 mg/l	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N)  Annual Average Single Value Single Value [Single Value]	Total Nitrogen ≤0.6 mg/l ≤0.9 mg/l	Nitrate : ≤10 mg/l Nitrite: ≤.06 mg/l [Ammonia: [S.V.:] ≤.02 mg/l (un ionized)]	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l		С	Propagation of aquatic life.
Dissolved Oxygen Single Value	 	NovMay: ≥6.0 mg/l JunOct: ≥5.0 mg/l	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Annual Average Single Value	≤60 mg/l	≤80 mg/l	Propagation of aquatic life.
Turbidity Single Value		b	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value	≤26 PCU	≤75 PCU	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	≤165 mg/l ≤220 mg/l	≤500 mg/l	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	≤15 mg/l ≤20 mg/l	≤250 mg/l	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value	≤25 mg/l	≤250 mg/l	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average		≤8	Irrigation and municipal or domestic supply, or both.
Alkalinity (as CaCO <sub>3</sub> )		less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
Escherichia coli Annual Geometeric Mean Single Value		126 MF/100 ml 1235 MF/100 ml 410 MF/100 ml	Recreation involving contact with the water [,] and recreation not involving contact with the water [,]. municipal or domestic supply, or both, irrigation and watering of investock.

Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard. Increase in turbidity must not be more than 10 NTU above natural conditions. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 17.** NAC 445A.161 is hereby amended to read as follows:

## NAC 445A.161

# STANDARDS OF WATER QUALITY Topaz Lake

Control Point at Topaz Lake. The limits of this table apply at various points in Topaz Lake.

DADAMETED	REQUIREMENTS TO MAINTAIN EXISTING HIGHER	WATER QUALITY	BENEFICIAL USES As designated in NAC 445A.159
PARAMETER	QUALITY	STANDARDS FOR BENEFICIAL USES	(Most stringent use listed first)
Temperature Single Value	$\Delta T = 0^{\circ}C^{a}$	NovApr.: ≤13°C May-Jun.: ≤17°C JulOct.: ≤23°C ΔT ≤2°C <sup>α</sup>	Propagation of aquatic life and recreation involving contact with the water.
pH Single Value		Within range 6.5 – 9.0 SU ΔpH: ±0.5 SU Max.	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average Single Value	<u></u>	≤0.05 mg/l ≤0.1 mg/l	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N)  Annual Average Single Value Single Value [Single Value]	Total Nitrogen ≤0.6 mg/l ≤1.0 mg/l	Nitrate: ≤10 mg/l Nitrite: ≤.06 mg/l [Ammonia: [S.V.:] ≤.02 mg/l (un ionized)]	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l		d	Propagation of aquatic life.
Dissolved Oxygen Single Value		NovMay: ≥6.0 mg/l JunOct. <sup>5</sup> : ≥5.0 mg/l	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Annual Average Single Value	≤0.6 mg/l ≤9.0 mg/l	≤25 mg/l	Propagation of aquatic life.
Turbidity Annual Average Single Value	≤3.0 NTU ≤5.0 NTU	С	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value	≤21 PCU	≤75 PCU	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	≤105 mg/l ≤120 mg/l	≤500 mg/l	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	≤7 mg/l ≤10 mg/l	 ≤250 mg/l	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value	≤25 mg/l	≤250 mg/l	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average		≤8	Irrigation and municipal or domestic supply, or both.

Alkalinity (as CaCO <sub>3</sub> )	1	less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
Escherichia coli Annual Geometeric Mean Single Value	 	126 MF/100 ml <del>[235 MF/100 ml]</del> 410 MF/100 ml	Recreation involving contact with the water [,] and recreation not involving contact with the water [,]. [municipal or domestic supply, or both, irrigation and watering of livestock.]

Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

The dissolved oxygen standard from June to October applies only to the epilimnion. Increase in turbidity must not be more than 10 NTU above natural conditions.

## **Sec. 18.** NAC 445A.158 is hereby amended to read as follows:

#### NAC 445A.162

#### STANDARDS OF WATER QUALITY West Walker River

Control Point at the West Walker River near Wellington. The limits of this table apply from the West Walker River near Wellington to the West Walker River at the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most stringent use listed first)
Temperature Single Value	$\Delta T = 0$ °C <sup>a</sup>	NovApr.: ≤13°C May-Jun.: ≤17°C JulOct.: ≤23°C ΔT ≤2°C <sup>a</sup>	Propagation of aquatic life and recreation involving contact with the water.
pH Single Value	Ξ	Within range 6.5 – 9.0 SU ΔpH: ±0.5 SU Max.	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average Single Value	≤0.07 mg/l ≤0.10 mg/l	≤0.1 mg/l	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N) Annual Average Single Value Single Value [Single Value]	Total Nitrogen ≤0.6 mg/l ≤1.0 mg/l	Nitrate : ≤10 mg/l Nitrite :≤.06 mg/l [Ammonia: [S.V.:] ≤.02 mg/l (un ionized)]	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l		c	Propagation of aquatic life.
Dissolved Oxygen Single Value		NovMay: ≥6.0 mg/l JunOct.: ≥5.0 mg/l	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Single Value		≤80 mg/l	Propagation of aquatic life.
Turbidity Single Value		b	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value		≤75 PCU	Municipal or domestic supply, or both, and propagation of aquatic life.

The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

Total Dissolved Solids Annual Average Single Value	≤175 mg/l ≤260 mg/l	≤500 mg/l	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	≤16 mg/l ≤30 mg/l	 ≤250 mg/l	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value		≤250 mg/l	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average		≤8	Irrigation and municipal or domestic supply, or both.
Alkalinity (as CaCO <sub>3</sub> )		less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
Escherichia coli Annual Geometeric Mean Single Value		126 MF/100 ml <del>[235 MF/100 ml]</del> 410 MF/100 ml	Recreation involving contact with the water [,] and recreation not involving contact with the water [,]. [municipal or domestic supply, or both, irrigation and watering of livestock.]

Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

Increase in turbidity must not be more than 10 NTU above natural conditions.

## **Sec. 19.** NAC 445A.163 is hereby amended to read as follows:

NAC 445A.163

#### STANDARDS OF WATER QUALITY West Walker River

Control Point at the West Walker River above the confluence with the East Walker River at Nordyke Road. The limits of this table apply to the West Walker River above its confluence with the East Walker River to the control point mentioned in NAC 445A.162 (near Wellington).

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most stringent use listed first)
Temperature Single Value	$\Delta T = 0$ °C <sup>a</sup>	NovApr.: ≤13°C May-Jun.: ≤17°C JulOct.: ≤23°C ΔT ≤2°C <sup>a</sup>	Propagation of aquatic life and recreation involving contact with the water.
pH Single Value		Within range 6.5 – 9.0 SU ΔpH: ±0.5 SU Max.	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average Single Value	≤0.15 mg/l	≤0.1 mg/l	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N)  Annual Average Single Value Single Value [Single Value]	Total Nitrogen ≤1.0 mg/l ≤1.2 mg/l	Nitrate : ≤10 mg/l Nitrite : ≤.06 mg/l [Ammonia: [S.V.:] ≤.02 mg/l (un ionized)]	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l		С	Propagation of aquatic life.

The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

Dissolved Oxygen Single Value		NovMay: ≥6.0 mg/l JunOct.: ≥5.0 mg/l	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Single Value		≤80 mg/l	Propagation of aquatic life.
Turbidity Single Value		b	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value	 ≤46 PCU	≤75 PCU	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	≤330 mg/l ≤425 mg/l	≤500 mg/l	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	≤22 mg/l ≤28 mg/l	 ≤250 mg/l	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value	≤74 mg/l	≤250 mg/l	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average		≤8	Irrigation and municipal or domestic supply, or both.
Alkalinity (as CaCO <sub>3</sub> )		less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
Escherichia coli Annual Geometeric Mean Single Value		126 MF/100 ml [235 MF/100 ml] 410 MF/100 ml	Recreation involving contact with the water [,] and recreation not involving contact with the water [,]. [municipal or domestic supply, or both, irrigation and watering of livestock.]

Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard. Increase in turbidity must not be more than 10 NTU above natural conditions.

## Sec. 20. NAC 445A.164 is hereby amended to read as follows:

## NAC 445A.164

#### STANDARDS OF WATER QUALITY Sweetwater Creek

Control Point at Sweetwater Creek. The limits of this table apply to Sweetwater Creek from its confluence with the East Walker River to the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most stringent use listed first)
Temperature Single Value	$\Delta T = 0^{\circ} C^{a}$	NovApr.: ≤13°C May-Jun.: ≤17°C JulOct.: ≤23°C ΔT ≤2°C <sup>a</sup>	Propagation of aquatic life and recreation involving contact with the water.
pH Single Value		Within range 6.5 – 9.0 SU ΔpH: ±0.5 SU Max.	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.

The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

			<del>-</del>
Total Phosphates (as P) Annual Average		≤0.1 mg/l	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N)  Annual Average Single Value Single Value [Single Value]	Total Nitrate ≤0.25 mg/l ≤0.45 mg/l	Nitrate : ≤10 mg/l Nitrite : ≤.06 mg/l [Ammonia: [S.V.:]≤.02 mg/l (un ionized)]	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l		c	Propagation of aquatic life.
Dissolved Oxygen Single Value		NovMay: ≥6.0 mg/l JunOct.: ≥5.0 mg/l	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Single Value	≤45 mg/l	≤80 mg/l	Propagation of aquatic life.
Turbidity Single Value		ь	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value		≤75 PCU	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	≤220 mg/l ≤300 mg/l	≤500 mg/l	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	≤5 mg/l ≤7 mg/l	 ≤250 mg/l	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value		≤250 mg/l	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average		≤8	Irrigation and municipal or domestic supply, or both.
Alkalinity (as CaCO 3)		less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
Escherichia coli Annual Geometeric Mean Single Value		126 MF/100 ml [235 MF/100 ml] 410 MF/100 ml	Recreation involving contact with the water [-] and recreation not involving contact with the water [-]. [municipal or domestic supply, or both, irrigation and watering of livestock.]

Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard. Increase in turbidity must not be more than 10 NTU above natural conditions. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 21.** NAC 445A.165 is hereby amended to read as follows:

## NAC 445A.165

## STANDARDS OF WATER QUALITY East Walker River

Control Point at the East Walker River at the state line. The limits of this table apply only to the East Walker River at the state line.

	<del> </del>	<del> </del>	<u> </u>
PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most stringent use listed first)
Temperature Single Value	$\Delta T = 0^{\circ} C^{a}$	NovApr.: ≤13°C May-Jun.: ≤17°C JulOct.: ≤23°C ΔT ≤2°C <sup>a</sup>	Propagation of aquatic life and recreation involving contact with the water.
pH Single Value		Within range 6.5 – 9.0 SU ΔpH: ±0.5 SU Max.	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average		≤0.1 mg/l	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N)  Annual Average Single Value Single Value [Single Value]	Total Nitrogen ≤0.8 mg/l ≤1.4 mg/l	Nitrate : ≤10 mg/l Nitrite : ≤.06 mg/l <del>[Ammonia: [S.V.:] ≤.02 mg/l</del> <del>(un ionized)]</del>	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l		c	Propagation of aquatic life.
Dissolved Oxygen Single Value		NovMay: ≥6.0 mg/l JunOct.: ≥5.0 mg/l	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Single Value	≤30 mg/l	≤80 mg/l	Propagation of aquatic life.
Turbidity Single Value		ь	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value		≤75 PCU	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	≤175 mg/l ≤210 mg/l	≤500 mg/l	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	≤5 mg/l ≤7 mg/l	 ≤250 mg/l	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value	≤26 mg/l	≤250 mg/l	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average	≤2	≤8	Irrigation and municipal or domestic supply, or both.

Alkalinity (as CaCO <sub>3</sub> )	-	less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
Escherichia coli Annual Geometeric Mean Single Value		126 MF/100 ml [235 MF/100 ml] 410 MF/100 ml	Recreation involving contact with the water [.] and recreation not involving contact with the water [.]. [municipal or domestic supply, or both, irrigation and watering of livestock.]

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard. Increase in turbidity must not be more than 10 NTU above natural conditions.
- The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## Sec. 22. NAC 445A.166 is hereby amended to read as follows:

NAC 445A.166

#### STANDARDS OF WATER QUALITY East Walker River

Control Point at the East Walker River south of Yerington above the confluence with the West Walker River (Nordyke Road). The limits of this table apply to the East Walker River south of Yerington above its confluence with the West Walker River to the East Walker River at Bridge B-1475.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most stringent use listed first)
Temperature Single Value	$\Delta T = 0$ °C <sup>a</sup>	NovApr.: ≤13°C May-Jun.: ≤17°C JulOct.: ≤23°C ΔT ≤2°C <sup>a</sup>	Propagation of aquatic life and recreation involving contact with the water.
pH Single Value		Within range 6.5 – 9.0 SU ΔpH: ±0.5 SU Max.	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average Single Value		≤0.16 mg/l ≤0.39 mg/l	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N)  Annual Average Single Value Single Value [Single Value]	Total Nitrogen ≤0.9 mg/l ≤1.7 mg/l	Nitrate: ≤10 mg/l Nitrite: ≤.06 mg/l [Ammonia: [S.V.:] ≤.02 mg/l (un ionized)]	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l		c	Propagation of aquatic life.
Dissolved Oxygen Single Value		NovMay: ≥6.0 mg/l JunOct.: ≥5.0 mg/l	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Single Value		≤80 mg/l	Propagation of aquatic life.
Turbidity Single Value		b	Propagation of aquatic life and municipal or domestic supply, or both.

Color Single Value		≤75 PCU	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	≤320 mg/l ≤390 mg/l	≤500 mg/l	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	≤13 mg/l ≤19 mg/l	 ≤250 mg/l	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value	≤44 mg/l	≤250 mg/l	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average		≤8	Irrigation and municipal or domestic supply, or both.
Alkalinity (as CaCO <sub>3</sub> )		less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
Escherichia coli Annual Geometeric Mean Single Value	 	126 MF/100 ml <del>[235 MF/100 ml]</del> 410 MF/100 ml	Recreation involving contact with the water [.] and recreation not involving contact with the water [.]. [municipal or domestic supply, or both, irrigation and watering of livestock.]

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

## **Sec. 23.** NAC 445A.167 is hereby amended to read as follows:

NAC 445A.167

## STANDARDS OF WATER QUALITY Walker River

Control Point at the Walker River at the inlet to Weber Reservoir. The limits of this table apply to the Walker River from the inlet to Weber Reservoir to the confluence of the West Walker River and the East Walker River.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most stringent use listed first)
Temperature Single Value	$\Delta T = 0$ °C <sup>a</sup>	NovMar.: ≤13°C AprJun.: ≤23°C <sup>b</sup> JulOct.: ≤28°C ΔT ≤2°C	Propagation of aquatic life and recreation involving contact with the water.
pH Single Value		Within range 6.5 – 9.0 SU ΔpH: ±0.5 SU Max.	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average Single Value		≤0.26 mg/l ≤0.40 mg/l	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N)  Annual Average Single Value Single Value [Single Value]	Total Nitrogen ≤1.2 mg/l ≤1.5 mg/l	Nitrate : ≤10 mg/l Nitrite : ≤1° mg/l [Ammonia: [S.V.:] ≤.06 mg/l (un ionized)]	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.

b. Increase in turbidity must not be more than 10 NTU above natural conditions.

c. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

			•
Total Ammonia (as N) - mg/l		e	Propagation of aquatic life.
Dissolved Oxygen Single Value	 	NovMay: ≥6.0 mg/l JunOct.: ≥5.0 mg/l	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Single Value		≤80 mg/l	Propagation of aquatic life.
Turbidity Single Value		d	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value		≤75 PCU	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	≤400 mg/l ≤450 mg/l	≤500 mg/l	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	≤30 mg/l ≤35 mg/l	 ≤250 mg/l	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Annual Average Single Value	≤95 mg/l ≤110 mg/l	≤250 mg/l	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average	≤3	≤8	Irrigation and municipal or domestic supply, or both.
Alkalinity (as CaCO <sub>3</sub> )		less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
Escherichia coli Annual Geometeric Mean Single Value		126 MF/100 ml <del>[235 MF/100 ml]</del> 410 MF/100 ml	Recreation involving contact with the water [-] and recreation not involving contact with the water [-]. [municipal or domestic supply, or both, irrigation and watering of livestock.]

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

  The temperature beneficial use standard is ≤21 °C from February through June when Lahontan cutthroat are present in the
- reach from Walker Lake to Weber Reservoir.
- The nitrite beneficial use standard is ≤0.06 mg/l from February through June when Lahontan cutthroat trout are present in the reach from Walker Lake to the Weber Reservoir.
- Increase in turbidity must not be more than 10 NTU above natural conditions.
- The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 24.** NAC 445A.169 is hereby amended to read as follows:

NAC 445A.169

#### STANDARDS OF WATER QUALITY Desert Creek

Control Point at Desert Creek. The limits of this table apply to Desert Creek from its confluence with the West Walker River to the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most stringent use listed first)
Temperature		NovMar.: ≤13°C	

Single Value		AprJun.: ≤17°C JulOct.: ≤23°C	Propagation of aquatic life and recreation involving contact with the water.
pH Single Value	ΔT = 0°C <sup>a</sup>	ΔT ≤2°C <sup>a</sup> Within range 6.5 – 9.0 SU ΔpH: ±0.5 SU Max.	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average Single Value	≤0.13 mg/l	≤0.17	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N)  Annual Average Single Value Single Value [Single Value]	Total Nitrate ≤0.2 mg/l ≤0.27 mg/l	Nitrate: ≤10 mg/l Nitrite: ≤.06 mg/l [Ammonia: [S.V.:]≤.02 mg/l (un ionized)]	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l		С	Propagation of aquatic life.
Dissolved Oxygen Single Value		NovMay: ≥6.0 mg/l JunOct.: ≥5.0 mg/l	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Single Value		≤80 mg/l	Propagation of aquatic life.
Turbidity Single Value		b	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value		≤75 PCU	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	≤110 mg/l ≤130 mg/l	≤500 mg/l	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	≤5 mg/l ≤7 mg/l	 ≤250 mg/l	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value		≤250 mg/l	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average		≤8	Irrigation and municipal or domestic supply, or both.
Alkalinity (as CaCO <sub>3</sub> )		less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
Escherichia coli Annual Geometeric Mean Single Value		126 MF/100 ml <del>[235 MF/100 ml]</del> 410 MF/100 ml	Recreation involving contact with the water [-] and recreation not involving contact with the water [-]. [municipal or domestic supply, or both, irrigation and watering of livestock.]

<sup>a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. Increase in turbidity must not be more than 10 NTU above natural conditions.
c. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.</sup> 

## Sec. 25. NAC 445A.171 is hereby amended to read as follows:

## NAC 445A.171

# STANDARDS OF WATER QUALITY Chiatovich Creek

Control Point above highway maintenance station. The limits of this table apply above the highway maintenance station.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum		NovApr.: ≤13°C May-Jun.: ≤17°C JulOct.: ≤23°C	Aquatic life <sup>b</sup> and water contact recreation.
$\Delta \mathrm{T}^{\mathrm{a}}$	$\Delta T = 0$ °C	ΔT ≤2°C	
pH Units		S.V.: [7.0 8.3] 6.5 - 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg.: ≤.04 S.V.: ≤.06	A-Avg.: ≤0.1 	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) – mg/l	Total Nitrogen A-Avg.: ≤.6 S.V.: ≤.8	Nitrate S.V.: ≤10 Nitrite S.V.: ≤.06 [Ammonia S.V.: ≤.02 (un ionized)]	Municipal or domestic supply <sup>b</sup> , aquatic life <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Total Ammonia (as N) - mg/l		e	Aquatic lifeb.
Dissolved Oxygen - mg/l	 	S.V.: NovMay: ≥6.0 JunOct.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l		S.V.: ≤25	Aquatic life <sup>b</sup> .
Turbidity - NTU		S.V.: ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU		С	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	A-Avg.: ≤50 S.V.: ≤60	A-Avg.: ≤500 	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: ≤2 S.V.: ≤3	 S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	A-Avg.: ≤4 S.V.: ≤5	 S.V.: ≤250	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: ≤1	A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as CaCO 3) - mg/l		less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: ≤100 S.V.: ≤200	≤200/400 <sup>d</sup>	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.

<sup>a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
b. The most restrictive beneficial use.</sup> 

c. Increase in color must not be more than 10 PCU above natural conditions.

- d. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
  e. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 26.** NAC 445A.172 is hereby amended to read as follows:

## NAC 445A.172

#### STANDARDS OF WATER QUALITY Indian Creek

Control Point near center of Section 9, T.2 S., R.34 E. The limits of this table apply above the center of Section 9, T.2 S., R 34 E.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum		NovApr.: ≤13°C May-Jun.: ≤17°C JulOct.: ≤23°C	Aquatic life <sup>b</sup> and water contact recreation.
$\Delta T^a$	$\Delta T = 0$ °C	ΔT ≤2°C	
pH Units		S.V.: <del>[7.0 8.3]</del> 6.5 – 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	 S.V.: ≤0.13	A-Avg.: ≤0.1 	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Nitrate S.V.: ≤0.45	Nitrate S.V.: ≤10 Nitrite S.V.: ≤.06 [Ammonia S.V.: ≤.02 (un ionized)]	Municipal or domestic supply <sup>b</sup> , aquatic life <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Total Ammonia (as N) - mg/l		e	Aquatic lifeb.
Dissolved Oxygen - mg/l	 	S.V.: NovMay: ≥6.0 JunOct.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l		S.V.: ≤25	Aquatic life <sup>b</sup> .
Turbidity - NTU		S.V.: ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU		с	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	A-Avg.: ≤225 S.V.: ≤300	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: ≤6 S.V.: ≤10	 S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l		S.V.: ≤250	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR		A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l		less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: ≤100 S.V.: ≤200	≤200/400 <sup>d</sup>	Water contact recreation b, noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

- b. The most restrictive beneficial use.
- Increase in color must not be more than 10 PCU above natural conditions.

  Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

  The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## Sec. 27. NAC 445A.173 is hereby amended to read as follows:

## NAC 445A.173

#### STANDARDS OF WATER QUALITY Leidy Creek

Control Point at hydroelectric plant. The limits of this table apply above the hydroelectric plant.

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PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum		NovApr.: ≤13°C May-Jun.: ≤17°C JulOct.: ≤23°C	Aquatic life <sup>b</sup> and water contact recreation.
$\Delta T^a$	$\Delta T = 0$ °C	ΔT ≤2°C	
pH Units		S.V.: [7.0 8.3] 6.5 - 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg.: ≤.013 S.V.: ≤.03	A-Avg.: ≤0.1	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) – mg/l	Nitrate A-Avg.: ≤0.18 S.V.: ≤0.22	Nitrate S.V.: ≤10 Nitrite S.V.: ≤.06 [Ammonia S.V.: ≤.02 (un_ionized)]	Municipal or domestic supply <sup>b</sup> , aquatic life, water contact recreation, stock watering, wildlife propagation <sup>b</sup> and noncontact recreation.
Total Ammonia (as N) - mg/l		e	Aquatic lifeb.
Dissolved Oxygen - mg/l	 	S.V.: NovMay: ≥6.0 JunOct.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l		S.V.: ≤25	Aquatic life <sup>b</sup> .
Turbidity - NTU		S.V.: ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU		с	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	A-Avg.: ≤135 S.V.: ≤150	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: ≤3 S.V.: ≤5	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l		S.V.: ≤250	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR		A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l		less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: ≤100 S.V.: ≤200	≤200/400 <sup>d</sup>	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

E. Coli No./100 ml	 Annual Geometric Mean: ≤126	Water contact recreationb and noncontact recreation.
	S.V.: ≤410	

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Increase in color must not be more than 10 PCU above natural conditions.
- d. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

  e. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 28.** NAC 445A.175 is hereby amended to read as follows:

NAC 445A.175

#### STANDARDS OF WATER QUALITY Virgin River

Control Point at Mesquite. The limits of this table apply from Mesquite to the Arizona state line (near Littlefield, Arizona).

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum		NovJun.: ≤21°C JulOct.: ≤32°C	Aquatic life <sup>b</sup> .
$\Delta T^a$	$\Delta T = 0^{\circ}C$	ΔT ≤2°C	
pH Units		S.V.: <del>[7.0 8.3]</del> 6.5 – 9.0 ΔpH: ±0.5 Max.	Wildlife propagation <sup>b</sup> , aquatic life <sup>b</sup> , noncontact recreation, irrigation, stock watering and industrial supply.
Total Phosphates (as P) - mg/l		A-Avg.: ≤0.1	Aquatic life <sup>b</sup> and noncontact recreation.
Nitrogen Species (N) – mg/l	Total Nitrogen A-Avg.: ≤0.9 S.V.: ≤1.6	Nitrate S.V.: ≤90 Nitrite S.V.: ≤5.0 [Ammonia S.V.: ≤.06 (un_ionized)]	Aquatic life <sup>b</sup> stock watering, wildlife propagation and noncontact recreation.
Total Ammonia (as N) - mg/l		f	Aquatic lifeb.
Dissolved Oxygen - mg/l		S.V.: ≥5.0	Aquatic life <sup>b</sup> , noncontact recreation, wildlife propagation and stock watering.
Turbidity - NTU		e	Aquatic life <sup>b</sup> .
Color - PCU		d	Aquatic life <sup>b</sup> .
Total Dissolved Solids - mg/l		с	Irrigation <sup>b</sup> and stock watering.
Alkalinity (as CaCO 3) - mg/l		less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: ≤300 S.V.: ≤550	A.G.M.: ≤1000 S.V.: ≤2000	Noncontact recreation <sup>b</sup> , irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤630	Noncontact recreationb.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

The most restrictive beneficial use.

c. The salinity standard for the Colorado River System is specified in NAC 445A.143.

- d. Increase in color must not be more than 10 PCU above natural conditions.
- Increase in turbidity must not be more than 10 NTU above natural conditions.
- The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## Sec. 29. NAC 445A.176 is hereby amended to read as follows:

NAC 445A.176

#### STANDARDS OF WATER QUALITY Virgin River

Control Point at the state line (near Littlefield, Arizona). The limits of this table apply at the Arizona-Nevada state line (near Littlefield, Arizona).

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum		NovJun.: ≤21°C JulOct.: ≤32°C	Aquatic life <sup>b</sup> .
$\Delta T^a$	$\Delta T = 0$ °C	ΔT ≤2°C	
pH - Standard Units		S.V.: [7.0 8.3] 6.5 - 9.0 ΔpH: ±0.5 Max.	Wildlife propagation <sup>b</sup> , aquatic life <sup>b</sup> , noncontact recreation, irrigation, stock watering and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg.: ≤.06 S.V.: ≤0.1	A-Avg.: ≤0.1	Aquatic life <sup>b</sup> and noncontact recreation.
Nitrogen Species (N) – mg/l	Total Nitrogen A-Avg.: ≤2.4 S.V.: ≤3.2	Nitrate S.V.: ≤90 Nitrite S.V.: ≤5.0 [Ammonia S.V.: ≤.06 (un_ionized)]	Aquatic life <sup>b</sup> stock watering, wildlife propagation and noncontact recreation.
Total Ammonia (as N) - mg/l		f	Aquatic lifeb.
Dissolved Oxygen - mg/l		S.V.: ≥5.0	Aquatic life <sup>b</sup> , noncontact recreation, wildlife propagation and stock watering.
Turbidity - NTU		e	Aquatic life <sup>b</sup> .
Color - PCU		d	Aquatic life <sup>b</sup> .
Total Dissolved Solids - mg/l		С	Irrigation <sup>b</sup> and stock watering.
Alkalinity (as CaCO 3) - mg/l		less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: ≤450 S.V.: ≤1800	A.G.M.: ≤1000 S.V.: ≤2000	Noncontact recreation <sup>b</sup> , irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤630	Noncontact recreationb.

Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard. The most restrictive beneficial use.

The salinity standard for the Colorado River System is specified in NAC 445A.143. Increase in color must not be more than 10 PCU above natural conditions. Increase in turbidity must not be more than 10 NTU above natural conditions.

The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 30.** NAC 445A.177 is hereby amended to read as follows:

NAC 445A.177

#### STANDARDS OF WATER QUALITY Virgin River

Control Point at Riverside. The limits of this table apply from the river mouth at Lake Mead to Mesquite.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum		NovJun.: ≤21°C JulOct.: ≤32°C	Aquatic life <sup>b</sup> .
$\Delta  ext{T}^{ ext{a}}$	$\Delta T = 0^{\circ}C$	ΔT ≤2°C	
pH Units		S.V.: [7.0 8.3] 6.5 – 9.0 ΔpH: ±0.5 Max.	Wildlife propagation <sup>b</sup> , aquatic life <sup>b</sup> , noncontact recreation, irrigation, stock watering and industrial supply.
Total Phosphates (as P) - mg/l		A-Avg.: ≤0.1	Aquatic life <sup>b</sup> and noncontact recreation.
Nitrogen Species (N) – mg/l	Total Nitrogen A-Avg.: ≤2.9 S.V.: ≤6.1	Nitrate S.V.: ≤90 Nitrite S.V.: ≤5.0 [Ammonia S.V.: ≤.06 (un_ionized)]	Aquatic life <sup>b</sup> stock watering, wildlife propagation and noncontact recreation.
Total Ammonia (as N) - mg/l		f	Aquatic lifeb.
Dissolved Oxygen - mg/l		S.V.: ≥5.0	Aquatic life <sup>b</sup> , noncontact recreation, wildlife propagation and stock watering.
Turbidity - NTU		e	Aquatic life <sup>b</sup> .
Color - PCU		d	Aquatic life <sup>b</sup> .
Total Dissolved Solids - mg/l		С	Irrigation <sup>b</sup> and stock watering.
Alkalinity (as CaCO 3) - mg/l		less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: ≤625 S.V.: ≤1250	A.G.M.: ≤1000 S.V.: ≤2000	Noncontact recreation <sup>b</sup> , irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤630	Noncontact recreationb.

Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard. The most restrictive beneficial use.

The salinity standard for the Colorado River System is specified in NAC 445A.143.

Increase in color must not be more than 10 PCU above natural conditions.

Increase in turbidity must not be more than 10 NTU above natural conditions.

The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## Sec. 31. NAC 445A.178 is hereby amended to read as follows:

#### NAC 445A.178

#### STANDARDS OF WATER QUALITY Beaver Dam Wash

Control Point above Schroeder Reservoir. The limits of this table apply above Schroeder Reservoir.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum		NovApr.: ≤13°C May-Jun.: ≤17°C JulOct.: ≤23°C	Aquatic life <sup>b</sup> and water contact recreation.
$\Delta T^a$	$\Delta T = 0$ °C	ΔT ≤2°C	
pH Units		S.V.: [7.0 - 8.3] 6.5 - 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg.: ≤.01 S.V.: ≤.013	A-Avg.: ≤0.05	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) – mg/l	Nitrate S.V.: ≤.22	Nitrate S.V.: ≤10 Nitrite S.V.: ≤.06 [Ammonia S.V.: ≤.02 (un ionized)]	Municipal or domestic supply <sup>b</sup> , aquatic life <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Total Ammonia (as N) - mg/l		f	Aquatic lifeb.
Dissolved Oxygen - mg/l		S.V.: NovMay: ≥6.0 JunOct.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l		S.V.: ≤25	Aquatic life <sup>b</sup> .
Turbidity - NTU		S.V.: ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU		e	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l		с	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Alkalinity (as CaCO 3) - mg/l		less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml		≤200/400 <sup>d</sup>	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.

Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

The most restrictive beneficial use.

The salinity standard for the Colorado River System is specified in NAC 445A.143.

Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml period exceed 400 per 100 ml.

Increase in color must not be more than 10 PCU above natural conditions.

The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## Sec. 32. NAC 445A.179 is hereby amended to read as follows:

#### NAC 445A.179

#### STANDARDS OF WATER QUALITY Snake Creek

Control Point above fish hatchery. The limits of this table apply above the fish hatchery.

	1	†	
PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum		NovApr.: ≤13°C May-Jun.: ≤17°C JulOct.: ≤23°C	Aquatic life <sup>b</sup> and water contact recreation.
$\Delta T^a$	$\Delta T = 0$ °C	ΔT ≤2°C	
pH Units		S.V.: [7.0 8.3] 6.5 – 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg.: ≤.05 S.V.: ≤.08	A-Avg.: ≤0.1	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) – mg/l	Nitrate A-Avg.: ≤.22 S.V.: ≤.44	Nitrate S.V.: ≤10 Nitrite S.V.: ≤.06 [Ammonia S.V.: ≤.02 (un_ionized)]	Municipal or domestic supply <sup>b</sup> , aquatic life <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Total Ammonia (as N) - mg/l		e	Aquatic lifeb.
Dissolved Oxygen - mg/l	 	S.V.: NovMay: ≥6.0 JunOct.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l		S.V.: ≤25	Aquatic life <sup>b</sup> .
Turbidity - NTU		S.V.: ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU		c	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	A-Avg.: ≤100 S.V.: ≤125	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: ≤10 S.V.: ≤20	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l		S.V.: ≤250	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR		A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as CaCO 3) - mg/l		less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: ≤100 S.V.: ≤200	≤200/400 <sup>d</sup>	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.

Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

The most restrictive beneficial use.

Increase in color must not be more than 10 PCU above natural conditions.

d. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 33.** NAC 445A.184 is hereby amended to read as follows:

## NAC 445A.184

#### STANDARDS OF WATER QUALITY Truckee River

Control Point at the state line. The limits of this table apply only at the California-Nevada state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum $\Delta T^a$	$\Delta T = 0$ °C	NovMar.: ≤7°C AprMay: ≤13°C June: ≤17°C July: ≤21°C Aug.: ≤22°C SepOct.: ≤23°C ΔT ≤2°C	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	7.0 - 8.3	S.V.: 6.5 - 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l		S.V.: NovMar.: ≥6.0 AprOct.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Chlorides - mg/l	A-Avg.: ≤7.0 S.V.: ≤10.0	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Total Phosphates (as P) - mg/l	A-Avg.: ≤0.03	A-Avg.: ≤0.10	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Ortho Phosphate (P) - mg/l	S.V.: ≤0.01	S.V.: ≤0.05	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) – mg/l	Total Nitrogen A-Avg.: ≤0.3 S.V.: ≤0.43	Nitrate S.V.: ≤2.0 Nitrite S.V.: ≤.04 [Ammonia S.V.: ≤.02 (un ionized)]	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Total Ammonia (as N) - mg/l		e	Aquatic lifeb.
Total Dissolved Solids - mg/l	A-Avg.: ≤70.0 S.V.: ≤85.0	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Turbidity - NTU	A-Avg.: ≤5.0 S.V.: ≤9.0	S.V.: ≤10.00	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	D	S.V.: ≤75	Municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l		less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No./100 ml	A.G.M.: ≤30.0 S.V.: ≤150.0	≤200/400°	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.
Suspended Solids - mg/l	A-Avg.: ≤15.0	S.V.: ≤25	Aquatic life <sup>b</sup> .
Sulfate - mg/l	A-Avg.: ≤7.0 S.V.: ≤8.0	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: ≤0.5 S.V.: ≤0.6	A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
BOD - mg/l	able increase in temperature	A-Avg.: ≤2.5 S.V.: ≤3.0	Municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

b. The most restrictive beneficial use.

c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
d. Increase in color must not be more than 10 PCU above natural conditions.
e. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 34.** NAC 445A.185 is hereby amended to read as follows:

## NAC 445A.185

## STANDARDS OF WATER QUALITY Truckee River

Control Point at Idlewild. The limits of this table apply from the control point at Idlewild to the state line control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum	$\Delta T = 0$ °C	NovMar.: ≤7°C AprMay: ≤13°C June: ≤17°C July: ≤21°C Aug.: ≤22°C SepOct.: ≤23°C ΔT ≤2°C	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	7.2 - 8.3	S.V.: 6.5 - 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l		S.V.: NovMar.: ≥6.0 AprOct.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Chlorides - mg/l	A-Avg.: ≤7.0 S.V.: ≤10.0	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Total Phosphates (as P) - mg/l	A-Avg.: ≤0.05	A-Avg.: ≤0.10	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Ortho Phosphate (P) - mg/l	S.V.: ≤0.02	S.V.: ≤0.05	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) – mg/l	Total Nitrogen A-Avg.: ≤0.3 S.V.: ≤0.43	Nitrate S.V.: ≤2.0 Nitrite S.V.: ≤.04 [Ammonia S.V.: ≤.02 (un ionized)]	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Total Ammonia (as N) - mg/l		e	Aquatic lifeb.
Total Dissolved Solids - mg/l	A-Avg.: ≤80.0 S.V.: ≤95.0	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Turbidity - NTU	A-Avg.: ≤6.0 S.V.: ≤9.0	S.V.: ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: ≤75	Municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l		less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No./100 ml	A.G.M.: ≤50.0 S.V.: ≤200.0	≤200/400°	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.
Suspended Solids - mg/l	A-Avg.: ≤15.0	S.V.: ≤25	Aquatic life <sup>b</sup> .
Sulfate - mg/l	A-Avg.: ≤7.0 S.V.: ≤8.0	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: ≤0.5 S.V.: ≤0.6	A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
BOD - mg/l		A-Avg.: ≤2.5 S.V.: ≤3.0	Municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

b. The most restrictive beneficial use.

- c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

  Increase in color must not be more than 10 PCU above natural conditions.

  The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 35.** NAC 445A.186 is hereby amended to read as follows:

## NAC 445A.186

#### STANDARDS OF WATER QUALITY Truckee River

Control Point at East McCarran Boulevard Bridge. The limits of this table apply from the East McCarran control point to the Idlewild control point.

	REQUIREMENTS		
PARAMETER	TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum	$\Delta T = 0$ °C	NovMar.: ≤7°C AprMay: ≤13°C June: ≤17°C July: ≤21°C Aug.: ≤22°C SepOct.: ≤23°C ΔT ≤2°C	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	7.0 - 8.5	S.V.: 6.5 - 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l		S.V.: NovMar.: ≥6.0 AprOct.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Chlorides - mg/l	A-Avg.: ≤7.0 S.V.: ≤10.0	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Total Phosphates (as P) - mg/l	A-Avg.: ≤0.05	A-Avg.: ≤0.10	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Ortho Phosphate (P) - mg/l	S.V.: ≤0.02	S.V.: ≤0.05	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) – mg/l	Total Nitrogen A-Avg.: ≤0.3 S.V.: ≤0.43	Nitrate S.V.: ≤2.0 Nitrite S.V.: ≤.04 [Ammonia S.V.: ≤.02 (un ionized)]	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Total Ammonia (as N) - mg/l		e	Aquatic lifeb.
Total Dissolved Solids - mg/l	A-Avg.: ≤90.0 S.V.: ≤120.0	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Turbidity - NTU	A-Avg.: ≤6.0	S.V.: ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: ≤75	Municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l		less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No./100 ml	A.G.M.: ≤75.0 S.V.: ≤350.0	≤200/400°	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.
Suspended Solids - mg/l	A-Avg.: ≤15.0	S.V.: ≤25	Aquatic life <sup>b</sup> .
Sulfate - mg/l	A-Avg.: ≤7.0 S.V.: ≤8.0	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: ≤0.5 S.V.: ≤0.6	A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
BOD - mg/l		A-Avg.: ≤3.0 S.V.: ≤5.0	Municipal or domestic supply.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard. The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

  Increase in color must not be more than 10 PCU above natural conditions.

  The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 36.** NAC 445A.187 is hereby amended to read as follows:

#### NAC 445A.187

## STANDARDS OF WATER QUALITY Truckee River

Control Point at Lockwood Bridge. The limits of this table apply from the control point at Lockwood to the East McCarran control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum	ΔT = 0°C	NovMar.: ≤13°C Apr.: ≤21°C <sup>e</sup> May: ≤22°C <sup>e,f</sup> June-Oct.: ≤23°C <sup>e,f</sup> ΔT ≤2°C	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	7.1 - 8.5	S.V.: 6.5 - 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l		S.V.: NovMar.: ≥6.0 AprOct.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Chlorides - mg/l	A-Avg.: ≤26.0 S.V.: ≤30.0	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Total Phosphates (as P) - mg/l		A-Avg.: ≤0.05	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) – mg/l		TN A-Avg.: ≤0.75 TN S.V.: ≤1.2 Nitrate S.V.: ≤2.0 Nitrite S.V.: ≤.04 [Ammonia S.V.: ≤.02 (un ionized)]	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Total Ammonia (as N) - mg/l		g	Aquatic lifeb.
Total Dissolved Solids - mg/l	A-Avg.: ≤210.0 S.V.: ≤260.0	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Turbidity - NTU		S.V.: ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: ≤75	Municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l		less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No./100 ml	A.G.M.: ≤90.0 S.V.: ≤300.0	≤200/400°	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.
Suspended Solids - mg/l	A-Avg.: ≤25.0	S.V.: ≤50	Aquatic life <sup>b</sup> .
Sulfate - mg/l	A-Avg.: ≤39.0 S.V.: ≤46.0	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> .

Sodium - SAR	A-Avg.: ≤1.5	A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
	S.Ŭ.: ≤2.0	, and the second	1 117

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard. The ΔT of ≤2°C is only for the Reno and Sparks Joint Wastewater Treatment Plant.
- b. The most restrictive beneficial use.
- c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- d. Increase in color must not be more than 10 PCU above natural conditions.
- e. When flows are adequate to induce spawning runs of cui-ui and Lahontan cutthroat trout, the standard is 14°C from April through June.
- f. The desired temperature for the protection of juvenile Lahontan cutthroat trout is 21°C, even though that temperature is not attainable at all times.
- g. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 37.** NAC 445A.188 is hereby amended to read as follows:

NAC 445A.188

## STANDARDS OF WATER QUALITY Truckee River

Control Point at Derby Dam. The limits of this table apply from Derby Dam to the Lockwood Bridge control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C-Maximum	$\Delta T = 0$ °C	NovMar.: ≤13°C Apr.: ≤21°C° May: ≤22°Ce.f June-Oct.: ≤23°Ce.f ΔT ≤2°C	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	7.0 - 8.6	S.V.: 6.5 - 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l		S.V.: NovMar.: ≥6.0 AprOct.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Chlorides - mg/l	A-Avg.: ≤21.0 S.V.: ≤30.0	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Total Phosphates (as P) - mg/l		A-Avg.: ≤0.05	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) – mg/l		TN A-Avg.: ≤0.75 TN S.V.: ≤1.2 Nitrate S.V.: ≤2.0 Nitrite S.V.: ≤.04 [Ammonia S.V.: ≤.02 (un_ionized)]	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Total Ammonia (as N) - mg/l		g	Aquatic lifeb.
Total Dissolved Solids - mg/l	A-Avg.: ≤215.0 S.V.: ≤265.0	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Turbidity - NTU	A-Avg.: ≤8.0	S.V.: ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: ≤75	Municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l		less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No./100 ml	A.G.M.: ≤80.0 S.V.: ≤250	≤200/400 <sup>c</sup>	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.
Suspended Solids - mg/l	A-Avg.: ≤24.0 S.V.: ≤40.0	S.V.: ≤50	Aquatic life <sup>b</sup> .
Sulfate - mg/l	A-Avg.: ≤39.0 S.V.: ≤46.0	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: ≤1.5 S.V.: ≤2.0	A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. The most restrictive beneficial use.
- c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- d. Increase in color must not be more than 10 PCU above natural conditions.
- e. When flows are adequate to induce spawning runs of cui-ui and Lahontan cutthroat trout, the standard is 14°C from April through June.
- f. The desired temperature for the protection of juvenile Lahontan cutthroat trout is 21°C, even though that temperature is not attainable at all times.
- g. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 38.** NAC 445A.189 is hereby amended to read as follows:

#### NAC 445A.189

## STANDARDS OF WATER QUALITY Truckee River

Control Point at Wadsworth Gage. The limits of this table apply from the Wadsworth Gage control point to Derby Dam.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum ΔT <sup>a</sup>	$\Delta T = 0$ °C	NovMar.: ≤13°C <sup>e</sup> AprJune: ≤14°C <sup>e</sup> July-Oct.: ≤25°C <sup>f</sup> ΔT ≤2°C	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	7.1 - 8.6	S.V.: 6.5 - 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l		S.V.: NovJune: ≥6.0 July-Oct.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Chlorides - mg/l	A-Avg.: ≤20.0 S.V.: ≤28.0	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Total Phosphates (as P) - mg/l		A-Avg.: ≤0.05	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) – mg/l		TN A-Avg.: ≤0.75 TN S.V.: ≤1.2 Nitrate S.V.: ≤2.0 Nitrite S.V.: ≤.04 [Ammonia S.V.: ≤.02 (un-ionized)]	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Total Ammonia (as N) - mg/l		g	Aquatic lifeb.
Total Dissolved Solids - mg/l	A-Avg.: ≤245.0 S.V.: ≤310.0	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Turbidity - NTU		S.V.: ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: ≤75	Municipal or domestic supply.

Alkalinity (as CaCO <sub>3</sub> ) - mg/l		less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No./100 ml	A.G.M.: ≤50 S.V.: ≤250	≤200/400°	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.
Suspended Solids - mg/l	A-Avg.: ≤25.0	S.V.: ≤50	Aquatic life <sup>b</sup> .
Sulfate - mg/l	A-Avg.: ≤39.0 S.V.: ≤46.0	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: ≤1.5 S.V.: ≤2.0	A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. The most restrictive beneficial use.
- c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- d. Increase in color must not be more than 10 PCU above natural conditions.
- e. When flows are adequate to induce spawning runs of cui-ui and Lahontan cutthroat trout, the standard is 13°C from November through March and 14°C from April through June.
- f. The desired temperature for the protection of juvenile Lahontan cutthroat trout is 21°C, even though that temperature is not attainable at all times.
- g. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 39.** NAC 445A.192 is hereby amended to read as follows:

#### NAC 445A.192

#### STANDARDS OF WATER QUALITY Colorado River

Control Point below Davis Dam. The limits of this table apply from the state line below Davis Dam to Lake Mohave Inlet.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum ΔT <sup>a</sup>	$\Delta T = 0$ °C	NovApr.: ≤13°C May-June: ≤17°C JulOct.: ≤23°C ΔT ≤2°C	Aquatic life <sup>b</sup> and water contact recreation.
pH Units		S.V.: [7.0 - 8.3] 6.5 - 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg.: ≤.02 S.V.: ≤.03	A-Avg.: ≤0.05	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) – mg/l	Nitrate A-Avg: ≤1.1 S.V.: ≤1.6	Nitrate S.V.: ≤10 Nitrite S.V.: ≤.06 [Ammonia S.V.: ≤.02 (un_ionized)]	Municipal or domestic supply <sup>b</sup> , aquatic life <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Total Ammonia (as N) - mg/l		f	Aquatic lifeb.
Dissolved Oxygen - mg/l		S.V.: NovMay: ≥6.0 JunOct.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.

Suspended Solids - mg/l	 	S.V.: ≤25	Aquatic life <sup>b</sup> .
Turbidity - NTU	 	S.V.: ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU		e	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l		c	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l	 	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No./100 ml	A.G.M.: ≤50 S.V.: ≤100	≤200/400 <sup>d</sup>	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤235	Water contact recreationb and noncontact recreation.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. The most restrictive beneficial use.
- c. The salinity standard for the Colorado River System is specified in NAC 445A.143.
- d. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- e. Increase in color must not be more than 10 PCU above natural conditions.
- f. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 40.** NAC 445A.193 is hereby amended to read as follows:

## NAC 445A.193

#### STANDARDS OF WATER QUALITY Colorado River

Control Point below Hoover Dam. The limits of this table apply from Lake Mohave Inlet to Hoover Dam.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum ΔT <sup>a</sup>	$\Delta T = 0$ °C	NovApr.: ≤13°C May-June: ≤17°C JulOct.: ≤23°C ΔT ≤2°C	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	 	S.V.: [7.0 8.3] 6.5 – 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg.: ≤.02 S.V.: ≤.033	A-Avg.: ≤0.05	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) – mg/l	Total Nitrogen A-Avg.: ≤1.0 S.V.: ≤1.5	Nitrate S.V.: ≤10 Nitrite S.V.: ≤.06 [Ammonia S.V.: ≤.02 (un_ionized)]	Municipal or domestic supply <sup>b</sup> , aquatic life <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Total Ammonia (as N) - mg/l	-	f	Aquatic lifeb.
Dissolved Oxygen - mg/l	 	S.V.: NovMay: ≥6.0 JunOct.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.

Suspended Solids - mg/l	 	S.V.: ≤25	Aquatic life <sup>b</sup> .
Turbidity - NTU	 	S.V.: ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU		e	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l		c	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l	 	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No./100 ml	A.G.M.: ≤50 S.V.: ≤100	≤200/400 <sup>d</sup>	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤235	Water contact recreationb and noncontact recreation.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. The most restrictive beneficial use.
- c. The salinity standard for the Colorado River System is specified in NAC 445A.143.
- d. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- e. Increase in color must not be more than 10 PCU above natural conditions.
- f. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 41.** NAC 445A.203 is hereby amended to read as follows:

NAC 445A.203

#### STANDARDS OF WATER QUALITY Humboldt River

Control Point near Osino. The limits in this table apply from the control point near Osino to the upstream source of the main stem.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - ΔT - Single Value <sup>a</sup>	$\Delta T = 0$ °C	ΔT ≤2°C	Aquatic life (warm-water fishery) <sup>b</sup> , water contact recreation.
pH Units Standard Units	A-Avg.: 7.0 - 8.3 S.V.: 7.0 - 8.5	S.V.: 6.5 - 9.0 ΔpH: ±0.5	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life (warm-water fishery), irrigation, stock watering, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l		S.V.: ≥5.0	Aquatic life (warm-water fishery) <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Chlorides - mg/l	A-Avg.: ≤22 S.V.: ≤25	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Total Phosphorus (as P) - mg/l		AprNov. Seasonal Avg.: ≤0.1	Aquatic life (warm-water fishery) <sup>b</sup> , bathing and water contact recreation, municipal or domestic supply and noncontact recreation.
Nitroten species (N) – mg/l	Total Nitrogen A-Avg.: ≤1.5 AprNov. S.V.: ≤2.4	Nitrate S.V.: ≤10 Nitrite S.V.: ≤1.0 [Ammonia S.V.: ≤0.02 (un ionized)]	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation, stock watering and aquatic life (warm-water fishery).

Total Ammonia (as N) - mg/l		f	Aquatic lifeb.
Total Dissolved Solids - mg/l	A-Avg.: ≤370 S.V.: ≤385	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Suspended Solids - mg/l		Annual Median: ≤80 <sup>e</sup>	Aquatic life (warm-water fishery) <sup>b</sup> .
Sulfate - mg/l		S.V.: ≤250	Municipal or domestic supply.
Color - PCU	d	No Adverse Effects	Municipal or domestic supply <sup>b</sup> .
Turbidity - NTU		S.V.: ≤50	Aquatic life (warm-water fishery) <sup>b</sup> , municipal or domestic supply.
Fecal Coliform - No./100 ml	Annual Geometric Mean: ≤75 S.V.: ≤200	≤200/400°	Contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126  [S.V.: ≤4106] S.V.: ≤410	Contact recreation [-] and noncontact recreation [-]. [municipal or domestic supply, irrigation, wildlife propagation and stock watering.]
Sodium - SAR		A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
- The most restrictive beneficial use.
- c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

  d. Increase in color must not be more than 10 PCU above natural conditions.

  e. The maximum allowable point source discharge is S.V. ≤ 80 mg/l of suspended solids.

- f. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## Sec. 42. NAC 445A.204 is hereby amended to read as follows:

## NAC 445A.204

## STANDARDS OF WATER QUALITY Humboldt River

Control Point at the Palisade Gage. The limits of this table apply from the control point at Palisade Gage upstream to the Osino control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - ΔT - Single Value <sup>a</sup>	$\Delta T = 0$ °C	ΔT ≤2°C	Aquatic life (warm-water fishery) <sup>b</sup> , water contact recreation.
pH Units Standard Units	A-Avg.: 7.0 - 8.5 S.V.: 7.0 - 8.6	S.V.: 6.5 - 9.0 ΔpH: ±0.5	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life (warm-water fishery), irrigation, stock watering, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l		S.V.: ≥5.0	Aquatic life (warm-water fishery) <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Chlorides - mg/l	A-Avg.: ≤21 S.V.: ≤30	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Total Phosphorus (as P) - mg/l		AprNov. Seasonal Avg.: ≤0.1	Aquatic life (warm-water fishery) <sup>b</sup> , bathing and water contact recreation, municipal or domestic supply and noncontact recreation.

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Nitrogen species (N) – mg/l	Total Nitrogen A-Avg.: ≤1.4 AprNov. S.V.: ≤2.4	Nitrate S.V.: ≤10 Nitrite S.V.: ≤1.0 [Ammonia S.V.: ≤0.02 (un ionized)]	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation, stock watering and aquatic life (warm-water fishery).
Total Ammonia (as N) - mg/l		f	Aquatic lifeb.
Total Dissolved Solids - mg/l	A-Avg.: ≤350 S.V.: ≤400	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Suspended Solids - mg/l		Annual Median: ≤80 <sup>e</sup>	Aquatic life (warm-water fishery) <sup>b</sup> .
Sulfate - mg/l		S.V.: ≤250	Municipal or domestic supply.
Color - PCU	d	No Adverse Effects	Municipal or domestic supply <sup>b</sup> .
Turbidity - NTU		S.V.: ≤50	Aquatic life (warm-water fishery) <sup>b</sup> , municipal or domestic supply.
Fecal Coliform - No./100 ml	Annual Geometric Mean: ≤20 S.V.: ≤150	≤200/400°	Contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 [S.V.: ≤406] S.V.: ≤410	Contact recreation [-] and noncontact recreation [-]. [municipal or domestic supply, irrigation, wildlife propagation and stock watering.]
Sodium - SAR		A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- The maximum allowable point source discharge is S.V.  $\leq$ 80 mg/l of suspended solids. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## Sec. 43. NAC 445A.205 is hereby amended to read as follows:

NAC 445A.205

#### STANDARDS OF WATER QUALITY Humboldt River

Control Point at the Battle Mountain Gage. The limits of this table apply from the control point at Battle Mountain Gage upstream to the Palisade Gage control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER OUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - ΔT - Single Value <sup>a</sup>	$\Delta T = 0$ °C	ΔT ≤2°C	Aquatic life (warm-water fishery) <sup>b</sup> , water contact recreation.
pH Units Standard Units	A-Avg.: 7.0 - 8.4 S.V.: 7.0 - 8.6	S.V.: 6.5 - 9.0 ΔpH: ±0.5	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life (warm-water fishery), irrigation, stock watering, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l		S.V.: ≥5.0	Aquatic life (warm-water fishery) <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Chlorides - mg/l	A-Avg.: ≤50 S.V.: ≤70	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.

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Total Phosphorus (as P) - mg/l		AprNov. Seasonal Avg.: ≤0.1	Aquatic life (warm-water fishery) <sup>b</sup> , bathing and water contact recreation, municipal or domestic supply and noncontact recreation.
Nitrogen species (N) – mg/l	Total Nitrogen A-Avg.: ≤1.9 AprNov. S.V.: ≤4.0	Nitrate S.V.: ≤10 Nitrite S.V.: ≤1.0 [Ammonia S.V.: ≤0.02 (un ionized)]	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation, stock watering and aquatic life (warm-water fishery).
Total Ammonia (as N) - mg/l		f	Aquatic lifeb.
Total Dissolved Solids - mg/l	A-Avg.: ≤425 S.V.: ≤520	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Suspended Solids - mg/l		Annual Median: ≤80 <sup>e</sup>	Aquatic life (warm-water fishery) <sup>b</sup> .
Sulfate - mg/l		S.V.: ≤250	Municipal or domestic supply.
Color - PCU	d	No Adverse Effects	Municipal or domestic supply <sup>b</sup> .
Turbidity - NTU		S.V.: ≤50	Aquatic life (warm-water fishery) <sup>b</sup> , municipal or domestic supply.
Fecal Coliform - No./100 ml	Annual Geometric Mean: ≤50 S.V.: ≤200	≤200/400 <sup>c</sup>	Contact recreation noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 [S.V.: ≤406] S.V.: ≤410	Contact recreation [-] and noncontact recreation [-]. [municipal or domestic supply, irrigation, wildlife propagation and stock watering.]
Sodium - SAR		A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
- b. The most restrictive beneficial use.
- c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- d. Increase in color must not be more than 10 PCU above natural conditions.
- e. The maximum allowable point source discharge is S.V. ≤80 mg/l of suspended solids.
- f. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 44.** NAC 445A.206 is hereby amended to read as follows:

NAC 445A.206

#### STANDARDS OF WATER QUALITY Humboldt River

Control Point where state highway 789 crosses the Humboldt River. The limits of this table apply from the control point where state highway 789 crosses the Humboldt River upstream to the Battle Mountain Gage control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - ΔT - Single Value <sup>a</sup>	$\Delta T = 0$ °C	ΔT ≤2°C	Aquatic life (warm-water fishery) <sup>b</sup> , water contact recreation.
pH Units Standard Units	A-Avg.: 7.0 - 8.5 S.V.: 7.0 - 8.7	S.V.: 6.5 - 9.0 ΔpH: ±0.5	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life (warm-water fishery), irrigation, stock watering, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l		S.V.: ≥5.0	Aquatic life (warm-water fishery) <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.

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Chlorides - mg/l	A-Avg.: ≤60 S.V.: ≤110	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Total Phosphorus (as P) - mg/l		AprNov. Seasonal Avg.: ≤0.1	Aquatic life (warm-water fishery) <sup>b</sup> , bathing and water contact recreation, municipal or domestic supply and noncontact recreation.
Nitrogen species (N) – mg/l	Total Nitrogen A-Avg.: ≤2.9 AprNov. S.V.: ≤3.7	Nitrate S.V.: ≤10 Nitrite S.V.: ≤1.0 [Ammonia S.V.: ≤0.02 (un ionized)]	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation, stock watering and aquatic life (warm-water fishery).
Total Ammonia (as N) - mg/l		f	Aquatic lifeb.
Total Dissolved Solids - mg/l	A-Avg.: ≤500 S.V.: ≤560	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Suspended Solids - mg/l		Annual Median: ≤80 <sup>e</sup>	Aquatic life (warm-water fishery) <sup>b</sup> .
Sulfate - mg/l		S.V.: ≤250	Municipal or domestic supply.
Color - PCU	d	No Adverse Effects	Municipal or domestic supply <sup>b</sup> .
Turbidity - NTU		S.V.: ≤50	Aquatic life (warm-water fishery) <sup>b</sup> , municipal or domestic supply.
Fecal Coliform - No./100 ml	Annual Geometric Mean: ≤40 S.V.: ≤100	≤200/400°	Contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126  [S.V.: ≤406]  S.V.: ≤410	Contact recreation [.] and noncontact recreation [.]. [municipal or domestic supply, irrigation, wildlife propagation and stock watering.]
Sodium - SAR		A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone. The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

  d. Increase in color must not be more than 10 PCU above natural conditions.

  e. The maximum allowable point source discharge is S.V. ≤80 mg/l of suspended solids.

- The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 45.** NAC 445A.207 is hereby amended to read as follows:

NAC 445A.207

#### STANDARDS OF WATER QUALITY Humboldt River

Control Point at Imlay. The limits of this table apply from the control point at Imlay upstream to the Comus Gage control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - ΔT - Single Value <sup>a</sup>	$\Delta T = 0$ °C	ΔT ≤2°C	Aquatic life (warm-water fishery) <sup>b</sup> , water contact recreation.
pH Units Standard Units	A-Avg.: 7.0 - 8.5 S.V.: 7.0 - 8.7	S.V.: 6.5 - 9.0 ΔpH: ±0.5	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life (warm-water fishery), irrigation, stock watering, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l		S.V.: ≥5.0	Aquatic life (warm-water fishery) <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.

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Chlorides - mg/l	A-Avg.: ≤70 S.V.: ≤85	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Total Phosphorus (as P) - mg/l		AprNov. Seasonal Avg.: ≤0.1	Aquatic life (warm-water fishery) <sup>b</sup> , bathing and water contact recreation, municipal or domestic supply and noncontact recreation.
Nitrogen species (N) - mg/l	Total Nitrogen A-Avg.: ≤2.4 AprNov. S.V.: ≤2.9	Nitrate S.V.: ≤10 Nitrite S.V.: ≤1.0 [Ammonia S.V.: ≤0.02 (un_ionized)]	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation, stock watering and aquatic life (warm-water fishery).
Total Ammonia (as N) - mg/l		f	Aquatic lifeb.
Total Dissolved Solids - mg/l	S.V.: ≤590	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Suspended Solids - mg/l		Annual Median: ≤80 <sup>e</sup>	Aquatic life (warm-water fishery) <sup>b</sup> .
Sulfate - mg/l		S.V.: ≤250	Municipal or domestic supply.
Color - PCU	d	No Adverse Effects	Municipal or domestic supply <sup>b</sup> .
Turbidity - NTU		S.V.: ≤50	Aquatic life (warm-water fishery) <sup>b</sup> , municipal or domestic supply.
Fecal Coliform - No./100 ml	Annual Geometric Mean: ≤30 S.V.: ≤150	≤200/400°	Contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126  [S.V.: ≤406] S.V.: ≤410	Contact recreation <sup>b</sup> [.] and noncontact recreation [.]. [municipal or domestic supply, irrigation, wildlife propagation and stock watering.]
Sodium - SAR		A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
- b. The most restrictive beneficial use.
- c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- d. Increase in color must not be more than 10 PCU above natural conditions.
- e. The maximum allowable point source discharge is S.V. ≤80 mg/l of suspended solids.
- f. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 46.** NAC 445A.208 is hereby amended to read as follows:

NAC 445A.208

#### STANDARDS OF WATER QUALITY Humboldt River

Control Point at Woolsey. The limits of this table apply from the control point at Woolsey upstream to the Imlay control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - ΔT - Single Value <sup>a</sup>	$\Delta T = 0$ °C	ΔT ≤2°C	Aquatic life (warm-water fishery) <sup>b</sup> , water contact recreation.
pH Units Standard Units	A-Avg.: 7.0 - 8.9 S.V.: 7.0 - 9.0	S.V.: 6.5 - 9.0 ΔpH: ±0.5	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life (warm-water fishery), irrigation, stock watering, municipal or domestic supply and industrial supply.

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Dissolved Oxygen - mg/l		S.V.: ≥5.0	Aquatic life (warm-water fishery) <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Chlorides - mg/l	A-Avg.: ≤130 S.V.: ≤175	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Total Phosphorus (as P) - mg/l		AprNov. Seasonal Avg.: ≤0.1	Aquatic life (warm-water fishery) <sup>b</sup> , bathing and water contact recreation, municipal or domestic supply and noncontact recreation.
Nitrogen species (N) - mg/l		Nitrate S.V.: ≤10 Nitrite S.V.: ≤1.0 [Ammonia S.V.: ≤0.02]	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation, stock watering and aquatic life (warm-water fishery).
Total Ammonia (as N) - mg/l		f	Aquatic lifeb.
Total Dissolved Solids - mg/l	A-Avg.: ≤600 S.V.: ≤700	A-Avg.: ≤1000	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Suspended Solids - mg/l		Annual Median: ≤80 <sup>e</sup>	Aquatic life (warm-water fishery) <sup>b</sup> .
Sulfate - mg/l		S.V.: ≤250	Municipal or domestic supply.
Color - PCU	d	No Adverse Effects	Municipal or domestic supply <sup>b</sup> .
Turbidity - NTU		S.V.: ≤50	Aquatic life (warm-water fishery) <sup>b</sup> , municipal or domestic supply.
Fecal Coliform - No./100 ml	Annual Geometric Mean: ≤100 S.V.: ≤200	≤200/400°	Contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 [S.V.: ≤406] S.V.: ≤410	Contact recreation <sup>b</sup> [.] and noncontact recreation [.]. [municipal or domestic supply, irrigation, wildlife propagation and stock watering.]
Sodium - SAR		A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
- b. The most restrictive beneficial use.
- c. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
  d. Increase in color must not be more than 10 PCU above natural conditions.

- e. The maximum allowable point source discharge is S.V. ≤80 mg/l of suspended solids.

  f. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 47.** NAC 445A.210 is hereby amended to read as follows:

## NAC 445A.210

#### STANDARDS OF WATER QUALITY Muddy River

Control Point at Glendale Bridge. The limits of this table apply from the Glendale Bridge upstream to the river source.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - Maximum		NovJun.: ≤21°C JulOct.: ≤32°C	Aquatic life <sup>b</sup> .
$\Delta T^{a}$	$\Delta T = 0$ °C	ΔT ≤2°C	

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pH Units		S.V.: [7.0—9.0] 6.5 – 9.0 ΔрН: ±0.5 Max.	Wildlife propagation <sup>b</sup> , aquatic life <sup>b</sup> , noncontact recreation, irrigation, stock watering, municipal or domestic supply and industrial supply
Total Phosphates (as P) - mg/l		A-Avg.: ≤0.1	Aquatic life <sup>b</sup> , noncontact recreation, and municipal or domestic supply.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: ≤1.3 S.V.: ≤1.4	Nitrate S.V.: ≤10 Nitrite S.V.: ≤1.0 [Ammonia S.V.: ≤.06 (un_ionized)]	Municipal or domestic supply <sup>b</sup> , aquatic life, water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Total Ammonia (as N) - mg/l		f	Aquatic lifeb.
Dissolved Oxygen - mg/l		S.V.: ≤5.0	Aquatic life <sup>b</sup> , noncontact recreation, wildlife propagation, stock watering and municipal or domestic supply.
Turbidity - NTU		e	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU		d	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l		с	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l		less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No./100 ml		A.G.M.: ≤1000 S.V.: ≤2000	Noncontact recreation <sup>b</sup> , municipal or domestic supply <sup>b</sup> , irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml	-	Annual Geometric Mean: ≤630	Noncontact recreationb.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

## **Sec. 48.** NAC 445A.211 is hereby amended to read as follows:

## NAC 445A.211

#### STANDARDS OF WATER QUALITY Muddy River

Control Point at Overton. The limits of this table apply from the mouth of the river at Lake Mead to the Glendale Bridge.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - Maximum $\Delta T^a$	ΔT = 0°C a	NovJun.: ≤21°C JulOct.: ≤32°C ΔT ≤2°C	Aquatic life <sup>b</sup> .
pH Units		S.V.: [7.0 9.0] 6.5 – 9.0 ΔpH: ±0.5 Max.	Wildlife propagation <sup>b</sup> , aquatic life <sup>b</sup> , noncontact recreation, irrigation, stock watering industrial supply.
Total Phosphates (as P) - mg/l		A-Avg.: ≤0.3	Aquatic life <sup>b</sup> and noncontact recreation.

The most restrictive beneficial use.

The salinity standard for the Colorado River System is specified in NAC 445A.143.

d. Increase in color must not be more than 10 PCU above natural conditions.

e. Increase in turbidity must not be more than 10 NTU above natural conditions.

f. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

Nitrogen Species (N) – mg/l	Total Nitrogen A-Avg.: ≤1.3 S.V.: ≤1.8	Nitrate S.V.: ≤90 Nitrite S.V.: ≤5.0 [Ammonia S.V.: ≤.06 (un ionized)]	Aquatic life <sup>b</sup> , stock watering, wildlife propagation and noncontact recreation.
Total Ammonia (as N) - mg/l		f	Aquatic lifeb.
Dissolved Oxygen - mg/l		S.V.: ≥5.0	Aquatic life <sup>b</sup> , noncontact recreation, wildlife propagation and stock watering.
Turbidity - NTU		e	Aquatic life <sup>b</sup> .
Color - PCU		d	Aquatic life <sup>b</sup> .
Total Dissolved Solids - mg/l		С	Irrigation <sup>b</sup> and stock watering.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l		less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No./100 ml	A.G.M.: ≤500 S.V.: ≤1300	A.G.M.: ≤1000 S.V.: ≤2000	Noncontact recreation <sup>b</sup> irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml		Annual Geometric Mean: ≰630	Noncontact recreationb.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

- b. The most restrictive beneficial use.
- c. The salinity standard for the Colorado River System is specified in NAC 445A.143.
- d. Increase in color must not be more than 10 PCU above natural conditions.
- e. Increase in turbidity must not be more than 10 NTU above natural conditions.
- f. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 49.** NAC 445A.212 is hereby amended to read as follows:

NAC 445A.212

#### STANDARDS OF WATER QUALITY Meadow Valley Wash

Control Point at confluence with Muddy River. The limits of this table apply from the confluence of the Meadow Valley Wash with the Muddy River to the bridge above Rox.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - Maximum		NovJun.: ≤21°C JulOct.: ≤32°C	Aquatic life <sup>b</sup> .
$\Delta T^a$	$\Delta T = 0$ °C	ΔT ≤2°C	
pH Units		S.V.: [7.0 9.0] 6.5 - 9.0 ApH: ±0.5 Max.	Wildlife propagation <sup>b</sup> , aquatic life <sup>b</sup> , noncontact recreation, irrigation, stock watering and industrial supply.
Total Phosphates (as P) - mg/l		A-Avg.: ≤0.1	Aquatic life <sup>b</sup> and noncontact recreation.
Nitrogen Species (N) – mg/l	Total Nitrogen A-Avg.: ≤2.0 S.V.: ≤3.3	Nitrate S.V.: ≤90 Nitrite S.V.: ≤5.0 [Ammonia S.V.: ≤.06 (un_ionized)]	Aquatic life <sup>b</sup> , stock watering, wildlife propagation and noncontact recreation.
Total Ammonia (as N) - mg/l		f	Aquatic lifeb.

Dissolved Oxygen - mg/l	 S.V.: ≥5.0	Aquatic life <sup>b</sup> , noncontact recreation, wildlife propagation, stock watering.
Turbidity - NTU	 e	Aquatic life <sup>b</sup> .
Color - PCU	 d	Aquatic life <sup>b</sup> .
Total Dissolved Solids - mg/l	 c	Irrigation <sup>b</sup> and stock watering.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l	 less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No./100 ml	 A.G.M.: ≤1000 S.V.: ≤2000	Noncontact recreation <sup>b</sup> , irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml	 Annual Geometric Mean: ≤630	Noncontact recreationb.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- The salinity standard for the Colorado River System is specified in NAC 445A.143. Increase in color must not be more than 10 PCU above natural conditions. Increase in turbidity must not be more than 10 NTU above natural conditions.

- f. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 50.** NAC 445A.215 is hereby amended to read as follows:

NAC 445A.215

#### STANDARDS OF WATER QUALITY Big Goose Creek

Control Point at Ranch.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum a ΔT°C	$\Delta T = 0^{\circ}$	May-Oct <21° Nov-Apr <13° ΔT <1°	Aquatic life, water contact recreation.
pH Units	ΔpH ±0.5	6.5 - 9.0	Aquatic life, municipal and domestic supply, water contact recreation.
Total Phosphorus (as P) - mg/l		<0.1	Aquatic life, water contact recreation, municipal and domestic supply, noncontact recreation.
Nitrogen Species (N) – mg/l	Nitrate S.V. <1.0	Nitrate S.V. <10 Nitrite S.V. <0.06 [Ammonia S.V. <0.02 (un_ionized)]	Municipal and domestic supply, aquatic life, water contact recreation, noncontact recreation.
Total Ammonia (as N) - mg/l		d	Aquatic life.
Dissolved Oxygen in mg/l		>6.0	Aquatic life, water contact recreation, wildlife propagation, stock watering, municipal and domestic supply, noncontact recreation.
Suspended Solids - mg/l		S.V. <25	Aquatic life, municipal and domestic supply.
Turbidity - NTU		S.V. <10	Aquatic life, municipal and domestic supply.

Total Dissolved Solids - mg/l	S.V. <185	S.V. <500	Municipal and domestic supply, irrigation, stock watering.
Chlorides - mg/l	S.V. <9.0	S.V. <250	Municipal and domestic supply, wildlife propagation, irrigation, stock watering.
Alkalinity (as CO <sub>3</sub> ) - mg/l		<25% change from natural conditions	Aquatic life, wildlife propagation.
Fecal Coliform - No./100 ml		<200/400 <sup>b</sup>	Water contact recreation, noncontact recreation, municipal and domestic supply, irrigation, wildlife propagation.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.
Color		с	Municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

## **Sec. 51.** NAC 445A.216 is hereby amended to read as follows:

NAC 445A.216

#### STANDARDS OF WATER QUALITY Salmon Falls Creek

Control Point at Highway 93 south of Jackpot.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum (a) ΔΤ°C	$\Delta T = 0^{\circ}$	May-Oct <21° Nov-Apr <13° ΔT <1°	Aquatic life, water contact recreation.
pH Units	ΔpH ±0.5	6.5 - 9.0	Aquatic life, municipal and domestic supply, water contact recreation.
Total Phosphorus (as P) in mg/l		<0.1	Aquatic life, water contact recreation, municipal and domestic supply, noncontact recreation.
Nitrogen Species (N) in mg/l	Nitrate S.V. <1.0	Nitrate S.V. <10 Nitrite S.V. <0.06 [Ammonia S.V. <0.02 (un ionized)]	Municipal and domestic supply, aquatic life, water contact recreation, noncontact recreation.
Total Ammonia (as N) - mg/l		d	Aquatic life.
Dissolved Oxygen in mg/l		>6.0	Aquatic life, water contact recreation, wildlife propagation, stock watering, municipal and domestic supply, noncontact recreation.
Suspended Solids - mg/l		S.V. <25	Aquatic life, municipal and domestic supply.
Turbidity - NTU		S.V. <10	Aquatic life, municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. <250	S.V. <500	Municipal and domestic supply, irrigation, stock watering.

b. The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.

c. Increase in color must not be more than 10 color units above natural conditions.

d. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

Chlorides - mg/l	S.V. <14.0	S.V. <250	Municipal and domestic supply, wildlife propagation, irrigation, stock watering.
Alkalinity (as CO <sub>3</sub> ) - mg/l		<25% change from natural conditions	Aquatic life, wildlife propagation.
Fecal Coliform - No./100 ml	S.V. <90	<200/400 <sup>b</sup>	Water contact recreation, noncontact recreation, municipal and domestic supply, irrigation, wildlife propagation.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.
Color		С	Municipal or domestic supply.

Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the

## **Sec. 52.** NAC 445A.217 is hereby amended to read as follows:

NAC 445A.217

#### STANDARDS OF WATER QUALITY Shoshone Creek

Control Point: Jackpot to Delaplain Road.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum (a) ΔΤ°C	$\Delta T = 0^{\circ}$	May-Oct <21° Nov-Apr <13° ΔT <1°	Aquatic life, water contact recreation.
pH Units	ΔpH ±0.5	6.5 - 9.0	Aquatic life, municipal and domestic supply, water contact recreation.
Total Phosphorus (as P) in mg/l		<0.1	Aquatic life, water contact recreation, municipal and domestic supply, noncontact recreation.
Nitrogen Species (as N) in mg/l	Nitrate S.V. <1.0	Nitrate S.V. <10 Nitrite S.V. <0.06 [Ammonia S.V. <0.02 (un_ionized)]	Municipal and domestic supply, aquatic life, water contact recreation, noncontact recreation.
Total Ammonia (as N) - mg/l		d	Aquatic life.
Dissolved Oxygen in mg/l		>6.0	Aquatic life, water contact recreation, wildlife propagation, stock watering, municipal and domestic supply, noncontact recreation.
Suspended Solids - mg/l		S.V. <25	Aquatic life, municipal and domestic supply.
Turbidity - NTU		S.V. <10	Aquatic life, municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. <250	S.V. <500	Municipal and domestic supply, irrigation, stock watering.
Chlorides - mg/l	S.V. <15.0	S.V. <250	Municipal and domestic supply, wildlife propagation, irrigation, stock watering.

increase must not cause a violation of the single value standard.

The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
c. Increase in color must not be more than 10 color units above natural conditions.
d. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

Alkalinity (as CO <sub>3</sub> ) - mg/l		<25% change from natural conditions	Aquatic life, wildlife propagation.
Fecal Coliform - No./100 ml		<200/400 <sup>b</sup>	Water contact recreation, noncontact recreation, municipal and domestic supply, irrigation, wildlife propagation.
E. Coli No./100 ml	<del>1</del>	Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.
Color		с	Municipal or domestic supply.

Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the

## **Sec. 53.** NAC 445A.218 is hereby amended to read as follows:

## NAC 445A.218

#### STANDARDS OF WATER QUALITY East Fork Jarbidge River

Control Point at the Nevada-Idaho state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum (a) ΔΤ°C	$\Delta T = 0^{\circ}$	May-Oct <21° Nov-Apr <7° ΔT <1°	Aquatic life, water contact recreation.
pH Units	ΔpH ±0.5	6.5 - 9.0	Aquatic life, municipal and domestic supply, water contact recreation.
Total Phosphorus (as P) in mg/l		<0.1	Aquatic life, water contact recreation, municipal and domestic supply, noncontact recreation.
Nitrogen Species (as N) in mg/l	Nitrate S.V. <1.0	Nitrate S.V. <10 Nitrite S.V. <0.06 [Ammonia S.V. <0.02 (un-ionized)]	Municipal and domestic supply, aquatic life, water contact recreation, noncontact recreation.
Total Ammonia (as N) - mg/l		d	Aquatic life.
Dissolved Oxygen in mg/l		> 6.0	Aquatic life, water contact recreation, wildlife propagation, stock watering, municipal and domestic supply, noncontact recreation.
Suspended Solids - mg/l		S.V. <25	Aquatic life, municipal and domestic supply.
Turbidity - NTU		S.V. <10	Aquatic life, municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. <200	S.V. <500	Municipal and domestic supply, irrigation, stock watering.
Chlorides - mg/l	S.V. <6.0	S.V. <250	Municipal and domestic supply, wildlife propagation, irrigation, stock watering.
Alkalinity (as CO <sub>3</sub> ) - mg/l		<25% change from natural conditions	Aquatic life, wildlife propagation.

increase must not cause a violation of the single value standard.

The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.

Increase in color must not be more than 10 color units above natural conditions.

d. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

Fecal Coliform - No./100 ml	S.V. <100	<200/400 <sup>b</sup>	Water contact recreation, noncontact recreation, municipal and domestic supply, irrigation, wildlife propagation.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.
Color		С	Municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

## **Sec. 54.** NAC 445A.219 is hereby amended to read as follows:

NAC 445A.219

## STANDARDS OF WATER QUALITY Jarbidge River

Control Point upstream from Jarbidge at bridge.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum (a) ΔΤ°C	$\Delta T = 0^{\circ}$	May-Oct <21° Nov-Apr <7° ΔT <1°	Aquatic life, water contact recreation.
pH Units	ΔpH ±0.5	6.5 - 9.0	Aquatic life, municipal and domestic supply, water contact recreation.
Total Phosphorus (as P) in mg/l	S.V. <0.05	<0.1	Aquatic life, water contact recreation, municipal and domestic supply, noncontact recreation.
Nitrogen Species (as N) in mg/l	Nitrate S.V. <1.0	Nitrate S.V. <10 Nitrite S.V. <0.06 [Ammonia S.V. <0.02 (un_ionized)]	Municipal and domestic supply, aquatic life, water contact recreation, noncontact recreation.
Total Ammonia (as N) - mg/l		d	Aquatic life.
Dissolved Oxygen in mg/l		>6.0	Aquatic life, water contact recreation, wildlife propagation, stock watering, municipal and domestic supply, noncontact recreation.
Suspended Solids - mg/l		S.V. <25	Aquatic life, municipal and domestic supply.
Turbidity - NTU		S.V. <10	Aquatic life, municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. <65	S.V. <500	Municipal and domestic supply, irrigation, stock watering.
Chlorides - mg/l	S.V. <7.0	S.V. <250	Municipal and domestic supply, wildlife propagation, irrigation, stock watering.
Alkalinity (as CO <sub>3</sub> ) - mg/l		<25% change from natural conditions	Aquatic life, wildlife propagation.

The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.

Increase in color must not be more than 10 color units above natural conditions.

d. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

Fecal Coliform - No./100 ml	S.V. <10	<200/400 <sup>b</sup>	Water contact recreation, noncontact recreation, municipal and domestic supply, irrigation, wildlife propagation.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.
Color		С	Municipal or domestic supply.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
- c. Increase in color must not be more than 10 color units above natural conditions.
- d. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 55.** NAC 445A.220 is hereby amended to read as follows:

NAC 445A.220

## STANDARDS OF WATER QUALITY Jarbidge River

Control Point downstream from Jarbidge at bridge.

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PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum (a) ΔΤ°C	$\Delta T = 0^{\circ}$	May-Oct <21° Nov-Apr <7° ΔT <1°	Aquatic life, water contact recreation.
pH Units	ΔpH ±0.5	6.5 - 9.0	Aquatic life, municipal and domestic supply, water contact recreation.
Total Phosphorus (as P) in mg/l	S.V. <0.05	<0.1	Aquatic life, water contact recreation, municipal and domestic supply, noncontact recreation.
Nitrogen Species (as N) in mg/l	Nitrate S.V. <1.0	Nitrate S.V. <10 Nitrite S.V. <0.06 [Ammonia S.V. <0.02 (un ionized)]	Municipal and domestic supply, aquatic life, water contact recreation, noncontact recreation.
Total Ammonia (as N) - mg/l		d	Aquatic life.
Dissolved Oxygen in mg/l		> 6.0	Aquatic life, water contact recreation, wildlife propagation, stock watering, municipal and domestic supply, noncontact recreation.
Suspended Solids - mg/l		S.V. <25	Aquatic life, municipal and domestic supply.
Turbidity - NTU		S.V. <10	Aquatic life, municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. <80	S.V. <500	Municipal and domestic supply, irrigation, stock watering.
Chlorides - mg/l	S.V. <7.0	S.V. <250	Municipal and domestic supply, wildlife propagation, irrigation, stock watering.
Alkalinity (as CO <sub>3</sub> ) - mg/l		<25% change from natural conditions	Aquatic life, wildlife propagation.

Fecal Coliform - No./100 ml	 <200/400 <sup>b</sup>	Water contact recreation, noncontact recreation, municipal and domestic supply, irrigation, wildlife propagation.
E. Coli No./100 ml	 Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.
Color	 С	Municipal or domestic supply.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
- c. Increase in color must not be more than 10 color units above natural conditions.
- d. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 56.** NAC 445A.221 is hereby amended to read as follows:

## NAC 445A.221

#### STANDARDS OF WATER QUALITY Bruneau River

Control Point at Diamond "A" Road.

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PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum (a) ΔΤ°C	$\Delta T = 0^{\circ}$	May-Oct <21° Nov-Apr <7° ΔT <1°	Aquatic life, water contact recreation.
pH Units	ΔpH ±0.5	6.5 - 9.0	Aquatic life, municipal and domestic supply, water contact recreation.
Total Phosphorus (as P) in mg/l		<0.1	Aquatic life, water contact recreation, municipal and domestic supply, noncontact recreation.
Nitrogen Species (as N) in mg/l	Nitrate S.V. <1.0	Nitrate S.V. <10 Nitrite S.V. <0.06 [Ammonia S.V. <0.02 (un ionized)]	Municipal and domestic supply, aquatic life, water contact recreation, noncontact recreation.
Total Ammonia (as N) - mg/l		d	Aquatic life.
Dissolved Oxygen in mg/l		>6.0	Aquatic life, water contact recreation, wildlife propagation, stock watering, municipal and domestic supply, noncontact recreation.
Suspended Solids - mg/l		S.V. <25	Aquatic life, municipal and domestic supply.
Turbidity - NTU		S.V. <10	Aquatic life, municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. <180	S.V. <500	Municipal and domestic supply, irrigation, stock watering.
Chlorides - mg/l	S.V. <7.0	S.V. <250	Municipal and domestic supply, wildlife propagation, irrigation, stock watering.
Alkalinity (as CO <sub>3</sub> ) - mg/l		<25% change from natural conditions	Aquatic life, wildlife propagation.

Fecal Coliform - No./100 ml	S.V. <80	<200/400 <sup>b</sup>	Water contact recreation, noncontact recreation, municipal and domestic supply, irrigation, wildlife propagation.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.
Color		С	Municipal or domestic supply.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

## **Sec. 57.** NAC 445A.222 is hereby amended to read as follows:

NAC 445A.222

#### STANDARDS OF WATER QUALITY Owyhee River

Control Point above Mill Creek.

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PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum (a) ΔΤ°C	$\Delta T = 0^{\circ}$	May-Oct $<21^{\circ}$ Nov-Apr $<7^{\circ}$ $\Delta T < 1^{\circ}$	Aquatic life, water contact recreation.
pH Units	ΔpH ±0.5	6.5 - 9.0	Aquatic life, municipal and domestic supply, water contact recreation.
Total Phosphorus (as P) in mg/l		<0.1	Aquatic life, water contact recreation, municipal and domestic supply, noncontact recreation.
Nitrogen Species (as N) in mg/l	Nitrate S.V. <1.0	Nitrate S.V. <10 Nitrite S.V. <0.06 [Ammonia S.V. <0.02 (un ionized)]	Municipal and domestic supply, aquatic life, water contact recreation, noncontact recreation.
Total Ammonia (as N) - mg/l		d	Aquatic life.
Dissolved Oxygen in mg/l		>6.0	Aquatic life, water contact recreation, wildlife propagation, stock watering, municipal and domestic supply, noncontact recreation.
Suspended Solids - mg/l		S.V. <25	Aquatic life, municipal and domestic supply.
Turbidity - NTU		S.V. <10	Aquatic life, municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. <200	S.V. <500	Municipal and domestic supply, irrigation, stock watering.
Chlorides - mg/l	S.V. <8.0	S.V. <250	Municipal and domestic supply, wildlife propagation, irrigation, stock watering.

b. The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.

c. Increase in color must not be more than 10 color units above natural conditions.

d. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

Alkalinity (as CO <sub>3</sub> ) - mg/l	 <25% change from natural conditions	Aquatic life, wildlife propagation.
Fecal Coliform - No./100 ml	 <200/400 <sup>b</sup>	Water contact recreation, noncontact recreation, municipal and domestic supply, irrigation, wildlife propagation.
E. Coli No./100 ml	 Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.
Color	 С	Municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

  The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
- Increase in color must not be more than 10 color units above natural conditions.
- d. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

## **Sec. 58.** NAC 445A.223 is hereby amended to read as follows:

NAC 445A.223

#### STANDARDS OF WATER QUALITY Owyhee River

Control Point at New China Dam.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum (a) ΔΤ°C	$\Delta T = 0^{\circ}$	May-Oct <21° Nov-Apr <7° ΔT <1°	Aquatic life, water contact recreation.
pH Units	ΔpH ±0.5	6.5 - 9.0	Aquatic life, municipal and domestic supply, water contact recreation.
Total Phosphorus (as P) in mg/l		<0.1	Aquatic life, water contact recreation, municipal and domestic supply, noncontact recreation.
Nitrogen Species (as N) in mg/l	Nitrate S.V. <1.0	Nitrate S.V. <10 Nitrite S.V. <0.06 [Ammonia S.V. <0.02 (un_ionized)]	Municipal and domestic supply, aquatic life, water contact recreation, noncontact recreation.
Total Ammonia (as N) - mg/l		d	Aquatic life.
Dissolved Oxygen in mg/l		>6.0	Aquatic life, water contact recreation, wildlife propagation, stock watering, municipal and domestic supply, noncontact recreation.
Suspended Solids - mg/l		S.V. <25	Aquatic life, municipal and domestic supply.
Turbidity - NTU		S.V. <10	Aquatic life, municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. <250	S.V. <500	Municipal and domestic supply, irrigation, stock watering.
Chlorides - mg/l	S.V. <8.0	S.V. <250	Municipal and domestic supply, wildlife propagation, irrigation, stock watering.

Alkalinity (as CO <sub>3</sub> ) - mg/l		<25% change from natural conditions	Aquatic life, wildlife propagation.
Fecal Coliform - No./100 ml	S.V. <125	<200/400 <sup>b</sup>	Water contact recreation, noncontact recreation, municipal and domestic supply, irrigation, wildlife propagation.
E. Coli No./100 ml		Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.
Color		с	Municipal or domestic supply.

## **Sec. 59.** NAC 445A.225 is hereby amended to read as follows:

NAC 445A.225

#### STANDARDS OF WATER QUALITY South Fork Owyhee River

Control Point at Petan Access Road.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum (a) ΔΤ°C	$\Delta T = 0^{\circ}$	May-Oct <21° Nov-Apr <13° ΔT <1°	Aquatic life, water contact recreation.
pH Units	ΔpH ±0.5	6.5 - 9.0	Aquatic life, municipal and domestic supply, water contact recreation.
Total Phosphorus (as P) in mg/l		<0.1	Aquatic life, water contact recreation, municipal and domestic supply, noncontact recreation.
Nitrogen Species (as N) in mg/l	Nitrate S.V. <1.0	Nitrate S.V. <10 Nitrite S.V. <0.06 [Ammonia S.V. <0.02 (un ionized)]	Municipal and domestic supply, aquatic life, water contact recreation, noncontact recreation.
Total Ammonia (as N) - mg/l		d	Aquatic life.
Dissolved Oxygen in mg/l		>6.0	Aquatic life, water contact recreation, wildlife propagation, stock watering, municipal and domestic supply, noncontact recreation.
Suspended Solids - mg/l		S.V. <25	Aquatic life, municipal and domestic supply.
Turbidity - NTU		S.V. <10	Aquatic life, municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. <280	S.V. <500	Municipal and domestic supply, irrigation, stock watering.
Chlorides - mg/l	S.V. <15.0	S.V. <250	Municipal and domestic supply, wildlife propagation, irrigation, stock watering.
Alkalinity (as CO <sub>3</sub> ) - mg/l		<25% change from natural conditions	Aquatic life, wildlife propagation.

Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.

Increase in color must not be more than 10 color units above natural conditions.

d. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

Fecal Coliform - No./100 ml	 <200/400 <sup>b</sup>	Water contact recreation, noncontact recreation, municipal and domestic supply, irrigation, wildlife propagation.
E. Coli No./100 ml	 Annual Geometric Mean: ≤126 S.V.: ≤410	Water contact recreationb and noncontact recreation.
Color	 С	Municipal or domestic supply.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
- c. Increase in color must not be more than 10 color units above natural conditions.
- d. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

**Sec. 60.** Section 60 re-amends Section 1 of LCB File No. R128-01 (Petition No. 2002-03) to read as follows.

#### STANDARDS OF WATER QUALITY East Walker River

Control Point at the East Walker River at Bridge B-1475. The limits of this table apply only from the East Walker River at Bridge B-1475 to the East Walker River at the state line.

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PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most stringent use listed first)
Temperature Single Value	$\Delta T = 0$ ° $C^a$	NovMar.: ≤13°C AprJun.: ≤17°C JulOct.: ≤23°C ΔT ≤2°C <sup>a</sup>	Propagation of aquatic life and recreation involving contact with the water.
pH Single Value		Within range 6.5 – 9.0 SU ΔpH: ±0.5 SU Max.	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) Annual Average		≤0.10 mg/l	Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.
Nitrogen Species (as N) Annual Average Single Value Single Value [Single Value]	Total Nitrogen ≤0.9 mg/l ≤1.7 mg/l	Nitrate : ≤10 mg/l Nitrite : ≤.06 mg/l [Ammonia: [S.V.:]≤.02 mg/l (un_ionized)]	Municipal or domestic supply, or both, propagation of aquatic life, recreation involving contact with the water, watering of livestock, propagation of wildlife and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l		c	Propagation of aquatic life.
Dissolved Oxygen Single Value		NovMay: ≥6.0 mg/l JunOct.: ≥5.0 mg/l	Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and recreation not involving contact with the water.
Suspended Solids Single Value		≤80 mg/l	Propagation of aquatic life.

Turbidity Single Value		b	Propagation of aquatic life and municipal or domestic supply, or both.
Color Single Value		≤75 PCU	Municipal or domestic supply, or both, and propagation of aquatic life.
Total Dissolved Solids Annual Average Single Value	≤320 mg/l ≤390 mg/l	≤500 mg/l	Municipal or domestic supply, or both, irrigation and watering of livestock.
Chloride Annual Average Single Value	≤5 mg/l ≤7 mg/l	≤250 mg/l	Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.
Sulfate Single Value	-	≤250 mg/l	Municipal or domestic supply, or both.
Sodium Adsorption Ratio Annual Average		≤8	Irrigation and municipal or domestic supply, or both.
Alkalinity (as CaCO <sub>3</sub> )		less than 25% change from natural conditions	Propagation of aquatic life and propagation of wildlife.
Escherichia coli Annual Geometeric Mean Single Value	 	126 MF/100 ml [235 MF/100 ml] 410 MF/100 ml	Recreation involving contact with the water [] and recreation not involving contact with the water []. [municipal or domestic supply, or both, irrigation and watering of livestock.]

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

# **Sec. 61.** Section 61 re-amends Section 3 of LCB File No. R129-01 (Petition No. 2002-04) to read as follows.

#### STANDARDS OF WATER QUALITY Walker Lake

Control Point at Walker Lake. The limits of this table apply to Walker Lake.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most stringent use listed first)
Temperature (a) Single Value		ΔT ≤2°C <sup>a</sup>	Propagation of aquatic life.
pH Single Value		Within range 6.5 – 9.7 SU	Propagation of aquatic life, recreation involving contact with the water, and propagation of wildlife.
Dissolved Oxygen <sup>(b)</sup> Single Value		≥5 mg/l	Propagation of aquatic life, recreation involving contact with the water, recreation not involving contact with the water, and propagation of wildlife.
Suspended Solids Single Value		≤25 mg/l	Propagation of aquatic life.
Nitrogen Species (as N)	Total Inorganic Nitrogen:		Propagation of aquatic life and propagation of wildlife.
Annual Average Single Value Single Value	0.18 mg/l <sup>©</sup> ≤0.3 mg/l	Nitrate ≤90 mg/l Nitrite ≤0.06 mg/l	

b. Increase in turbidity must not be more than 10 NTU above natural conditions.

c. The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.

Total Ammonia (as N) - mg/l	 d	Propagation of aquatic life.
Total Phosphorous as P Single Value	 ≤0.82 mg/l	Propagation of aquatic life.
Escherichia coli 30-day Log Mean Single Value	  ≤126 MF/100 ml ≤235 MF/100 ml	Recreation involving contact with the water and recreation not involving contact with the water.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone. When the lake is stratified, the dissolved oxygen applies only to the epilimnion. TIN annual average computed for calendar year.

  The ambient water quality criteria for ammonia are specified in Section 2 of this regulation.
- b.