

**NEVADA DEPARTMENT OF
CONSERVATION & NATURAL RESOURCES**

STATE ENVIRONMENTAL COMMISSION

HEARING ARCHIVES FOR

REGULATORY PETITIONS

COMMISSION PETITION NO. 2002-03

LEGISLATIVE COUNSEL BUREAU (LCB) FILE NO. R-128-01

DOCUMENTS INCLUDED IN THIS FILE:

YES SECRETARY OF STATE FILING FORM

YES DISCLOSURE STATEMENT PURSUANT TO NRS 233B

REGULATORY PETITIONS

ORIGINAL DRAFTED BY COMMISSION

ADOPTED BY COMMISSION

AS FILED AND CODIFIED BY LCB

Secretary of State
Filing Data

**For Filing Administrative
Regulations**

For Emergency
Regulations Only

Effective Date

Expiration Date

Governor's Signature

State Environmental Commission

Classification Proposed Adopted By Agency Temporary Emergency

Brief description of action: Petition 2002-03 (LCB R-128-01) is a permanent amendment to NAC 445A.119 to 445A.225, the pollution control standards for water quality. The petition amends the standards for various reaches of the East and West forks of the Walker River. Amended was NAC 445A.159 through 445A.169, inclusive including Sweetwater Creek and Desert Creek of the Walker River. Revised area of water quality standards includes pH, the nitrite in the lower reaches, the time period for dissolved oxygen beneficial use standard, the Topaz Lake dissolved oxygen standard, the replacement of the narrative color standard with a numeric standard, establishing sulfate requirements to maintain existing higher quality (RMHQ), replacement of existing fecal coliform standard with E. Coli standard and to establish a total suspended RMHQ for Sweetwater Creek. The time period that adult Lahontan cutthroat trout may be present in the reach from Walker Lake to Weber Reservoir was revised.

Authority citation other than 233B: NRS 445A.425 and 445A.520

Notice date: November 12, November 21 and November 29, 2001

Hearing date: December 11, 2001

Date of Adoption of Agency: December 11, 2001

**LEGISLATIVE REVIEW OF ADOPTED REGULATIONS AS REQUIRED
BY ADMINISTRATIVE PROCEDURES ACT, NRS 233B.066
PETITION 2002-03 LCB File R-128-01
STATE ENVIRONMENTAL COMMISSION**

The following statement is submitted for adopted amendments to Nevada Administrative Code (NAC) 445A. This regulation deals with amendments to the water quality standards for the Walker River.

1. A description of how public comment was solicited, a summary of public response, and an explanation how other interested persons may obtain a copy of the summary.

Petition 2002-04 (LCB File R-129-01), was noticed three (3) November 12, November 21 and November 29, 2001 as a permanent regulation in the Las Vegas Review Journal and the Reno-Gazette-Journal newspapers. Regulatory workshops were conducted by the Nevada Division of Environmental Protection's Bureau of Water Quality Planning on October 4, 2001 in Hawthorne and Yerington. The regulation was adopted by the State Environmental Commission as a permanent regulation on December 11, 2001. There were 1 oral comment opposing and 1 supporting the regulation that were received by the Commission during permanent adoption. The opposing comment stated the standard setting process should be halted and that any standard set must be enforceable and wait until the pending litigation over the Walker Lake is settled. Representing the opposition comments was the Dynamic Action Group of Wells (DAWG). Oral comments were received from the Walker Lake Irrigation District supporting the standards as presented. Written comments were received from the Walker Lake Irrigation District (exhibit 16) supported of the water quality standards. Written comments were also received from the U.S. Fish and Wildlife Service (exhibit 11) which supported the proposed revisions to the water quality standards for the Walker River, although they requested that the dissolved oxygen standard for Topaz Lake be uniformly applied throughout Topaz Lake. The public was also mailed the notice of intent and agenda through the Environmental Commission's mailing list. A copy of the written comments may be obtained by calling the Nevada State Environmental Commission (775) 687-4670 extension 3118, or writing to the Commission at 333 W. Nye Ln., Room 138, Carson City, Nevada 89706-0851.

2. The number persons who:

(a)	Attended each hearing;	48
(b)	Testified at each hearing;	2
(c)	Submitted to the agency written comments:	2

3. A description of how comment was solicited from affected businesses, a summary of their response, and a explanation how other interested persons may obtain a copy of the summary.

Comments were solicited from affected businesses by the notices in the newspapers, as outlined in #1 and by direct mail to interested persons subscribing to the Commission's mailing list. See above statement for dates of the public notices and public workshops. No oral testimony or written comments were received that opposed or supported the regulation during permanent adoption. A copy of the written comments may be obtained by calling the Nevada State Environmental Commission (775) 687-4670 or writing to the Commission at 333 W. Nye Ln., Room 138, Carson City, Nevada 89706-0851.

4. If the regulation was adopted without changing any part of the proposed regulation, a summary of the reasons for adopting the regulation without change.

The regulation was adopted by the State Environmental Commission on December 11, 2001 with proposed amendments by the U.S. Fish and Wildlife Service not accepted.

5. The estimated economic effect of the adopted regulation on the business which it is to regulate and on the public. These must be stated separately, and each case must include:

(a) Estimated economic effect of the regulation on the business which it is to regulate;

The proposed regulation will not have an adverse economic impact on businesses, since the amendments do not directly regulate business

(b) Estimated economic effect on the public;

The regulation is not expected to have any economic effect on the public both immediately and long-term.

6. The estimated cost to the agency for enforcement of the adopted regulation.

There is no additional cost to the agency for implementation of this regulation.

7. A description of any regulations of other state or government agencies which the proposed regulation overlaps or duplicates and a statement explaining why the duplication or overlapping is necessary. If the regulation overlaps or duplicates a federal regulation, the name of the regulating federal agency.

The regulations do not overlap or duplicate any regulations of another state or local governmental agency.

8. If the regulation includes provisions which are more stringent than a federal regulation which regulates the same activity, a summary of such provisions.

The federal government has delegated the responsibility of establishing water quality standards to the state, therefore, there is no federal regulation for water quality standards for the Walker River Basin. This regulation is no more restrictive or stringent than federal requirements.

9. If the regulation provides a new fee or increases an existing fee, the total annual amount the agency expects to collect and the manner in which the money will be used.

The amended regulations do not provide a new fee nor amend existing fees.

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**ADOPTED REGULATION OF THE
STATE ENVIRONMENTAL COMMISSION
LCB File No. R128-01**

November 6, 2001

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

AUTHORITY: §§1-12, NRS 445A.425 and 445A.520.

Section 1. Chapter 445A of NAC is hereby amended by adding thereto a new section to read as follows:
STANDARDS OF WATER QUALITY

East Walker River at Bridge B-1475

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.

<i>PARAMETER</i>	<i>REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY</i>	<i>WATER QUALITY STANDARDS FOR BENEFICIAL USES</i>	<i>BENEFICIAL USES As designated in NAC 445A.159 (Most stringent use listed first)</i>
<i>Temperature Single Value</i>	$\Delta T = 0\text{ }^{\circ}\text{C}^a$	<i>Nov.-Apr.: $\leq 13\text{ }^{\circ}\text{C}$ May-Jun.: $\leq 17\text{ }^{\circ}\text{C}$ Jul.-Oct.: $\leq 23\text{ }^{\circ}\text{C}$ $\Delta T \leq 2\text{ }^{\circ}\text{C}^a$</i>	<i>Propagation of aquatic life and recreation involving contact with the water.</i>
<i>pH Single Value</i>	--	<i>Within range 6.5 - 9.0 SU $\Delta\text{pH}: \pm 0.5\text{ SU Max.}$</i>	<i>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.</i>
<i>Total Phosphates (as P) Annual Average</i>	--	<i>$\leq 0.10\text{ mg/l}$</i>	<i>Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and recreation not involving contact with the water.</i>
<i>Nitrogen Species (as N) Annual Average Single Value Single Value Single Value</i>	<i>Total Nitrogen $\leq 0.9\text{ mg/l}$ $\leq 1.7\text{ mg/l}$</i>	<i>Nitrate: $\leq 10\text{ mg/l}$ Nitrite: $\leq 0.06\text{ mg/l}$ Ammonia: $\leq 0.02\text{ mg/l}$ (un-ionized)</i>	<i>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.</i>
<i>Dissolved Oxygen Single Value</i>	--	<i>Nov.-May: $\geq 6.0\text{ mg/l}$ June-Oct.: $\geq 5.0\text{ mg/l}$</i>	<i>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.</i>
<i>Suspended Solids Single Value</i>	--	<i>$\leq 80\text{ mg/l}$</i>	<i>Propagation of aquatic life.</i>
<i>Turbidity Single Value</i>	--	<i>b</i>	<i>Propagation of aquatic life and municipal or domestic supply, or both.</i>
<i>Color Single Value</i>	--	<i>$\leq 75\text{ PCU}$</i>	<i>Municipal or domestic supply, or both, and propagation of aquatic life.</i>

<i>Total Dissolved Solids Annual Average Single Value</i>	≤ 20 mg/l ≤ 90 mg/l	≤ 500 mg/l	<i>Municipal or domestic supply, or both, irrigation and watering of livestock.</i>
<i>Chloride Annual Average Single Value</i>	≤ 13 mg/l ≤ 19 mg/l	≤ 250 mg/l	<i>Municipal or domestic supply, or both, propagation of wildlife, irrigation and watering of livestock.</i>
<i>Sulfate Single Value</i>	--	≤ 250 mg/l	<i>Municipal or domestic supply, or both.</i>
<i>Sodium Adsorption Ratio Annual Average</i>	--	≤ 8	<i>Irrigation and municipal or domestic supply, or both.</i>
<i>Alkalinity (as CaCO₃)</i>	--	<i>less than 25% change from natural conditions</i>	<i>Propagation of aquatic life and propagation of wildlife.</i>
<i>Escherichia coli Annual Geometric Mean Single Value</i>	-- --	<i>126 MF/100 ml 235 MF/100 ml</i>	<i>Recreation involving contact with the water, recreation not involving contact with the water, municipal or domestic supply, or both, irrigation and watering of livestock.</i>

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.

Sec. 2. NAC 445A.159 is hereby amended to read as follows:

445A.159 The standards of water quality for the Walker River from Walker Lake to the state line are prescribed in NAC 445A.160 to 445A.169, inclusive ~~†~~, *and section 1 of this regulation.* The beneficial uses for this area are:

1. Irrigation;
2. Watering of livestock;
3. Recreation involving contact with the water;
4. Recreation not involving contact with *the* water;
5. Industrial supply;
6. Municipal or domestic supply, or both;
7. Propagation of wildlife; and
8. Propagation of aquatic life, and more specifically, the species of major concern are:
 - (a) In the West Walker River at the state line, *mountain whitefish*, rainbow trout and brown trout;

- (b) In Topaz Lake, rainbow trout, cutthroat trout, brown trout, kokone salmon and silver salmon;
- (c) In the West Walker River from Wellington to the state line, *mountain whitefish*, rainbow trout and brown trout;
- (d) In the West Walker River from its confluence with the East Walker River to Wellington, brown trout and rainbow trout;
- (e) In Sweetwater Creek, *mountain whitefish*, brown trout, brook trout and rainbow trout;
- (f) In the East Walker River at the state line, mountain ~~white fish,~~ *whitefish*, rainbow trout and brown trout;
- (g) *In the East Walker River from Bridge B-1475 to the state line, mountain whitefish, rainbow trout and brown trout;*
- (h) In the East Walker River from its confluence with the West Walker River to ~~the state line,~~ *Bridge B-1475*, brown trout and rainbow trout;
- ~~(h)~~ (i) In the Walker River from Weber Reservoir to the confluence of the East Walker River and West Walker River, channel catfish and largemouth bass;
- ~~(h)~~ (j) In the Walker River from the inlet to Walker Lake to Weber Reservoir, channel catfish, largemouth bass ~~and, from February through June when an adequate flow exists,~~ adult Lahontan cutthroat trout ~~from April through May,~~ and adult rainbow ~~trout from April through June; and~~ *trout; and*
- (k) In Desert Creek, brown trout, brook trout and rainbow trout.

Sec. 3. NAC 445A.160 is hereby amended to read as follows:
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 line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES <i>As designated in NAC 445A.159 (Most stringent use listed first)</i>
Temperature °C Maximum ΔT Single Value	July-Oct.: ≤22°C ΔT = 10°C 0°C ^a	Nov.-Apr.: ≤13°C May-Jun.: ≤17°C Jul.-Oct.: ≤23°C ΔT ≤2°C ≤2°C ^a	Aquatic life^b and water contact recreation. Propagation of aquatic life and recreation involving contact with the water.
pH [Units] Single Value	--	S.V.: 7.0 - 8.3 Within range 6.5 - 9.0 SU ΔpH: ±0.5 SU Max.	Water contact recreation^b, wildlife propagation^b, Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, stock watering, watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) mg/l Annual Average	--	A-Avg.: ≤0.1 mg/l	Aquatic life^b, water contact recreation^b, Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and noncontact recreation. recreation not involving contact with the water.
Nitrogen Species (N) mg/l (as N) Annual Average Single Value Single Value	Total Nitrogen A-Avg.: ≤0.6 S.V.: ≤0.9 ≤0.6 mg/l ≤0.9 mg/l	Nitrate: S.V.: ≤10 mg/l Nitrite: S.V.: ≤0.06 mg/l Ammonia: S.V.: ≤0.02 mg/l (un-ionized)	Municipal or domestic supply^b, aquatic life^b, water contact recreation, stock watering, wildlife propagation and noncontact recreation. 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.
Dissolved Oxygen mg/l Single Value	--	S.V.: Nov. Apr.: ≥6.0 May Oct.: ≥5.0 Nov.-May: ≥6.0 mg/l Jun.-Oct.: ≥5.0 mg/l	Aquatic life^b, water contact recreation, wildlife propagation, stock watering, Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and noncontact recreation. recreation not involving contact with the water.
Suspended Solids mg/l Annual Average Single Value	A-Avg.: ≤60 mg/l	S.V.: ≤80 mg/l	Aquatic life^b, Propagation of aquatic life.
Turbidity NTU Single Value	--	1 b	Aquatic Life^b, Propagation of aquatic life and municipal or domestic supply 1 , or both.
Color PCU Single Value	1 ≤6 PCU	1 ≤5 PCU	Aquatic life^b and municipal Municipal or domestic supply 1 , or both, and propagation of aquatic life.
Total Dissolved Solids mg/l Annual Average Single Value	A-Avg.: ≤165 S.V.: ≤220 ≤165 mg/l ≤20 mg/l	A-Avg.: ≤500 mg/l	Municipal or domestic supply^b, supply, or both, irrigation and stock watering, watering of livestock.
Chlorides mg/l Chloride Annual Average Single Value	A-Avg.: ≤15 S.V.: ≤20 ≤15 mg/l ≤20 mg/l	S.V.: ≤250 mg/l	Municipal or domestic supply^b, wildlife propagation, supply, or both, propagation of wildlife, irrigation and stock watering, watering of livestock.
Sulfate mg/l Single Value	1 ≤5 mg/l	S.V.: ≤250 mg/l	Municipal or domestic supply^b, supply, or both.
Sodium SAR Adsorption Ratio Annual Average	--	A-Avg.: ≤8	Irrigation^b Irrigation and municipal or domestic supply 1 , or both.

Alkalinity (as CaCO ₃) mg/l	--	less than 25% change from natural conditions	Aquatic life^b and wildlife propagation. <i>Propagation of aquatic life and propagation of wildlife.</i>
Fecal Coliform- No./100 ml <i>Escherichia coli Annual Geometric Mean Single Value</i>	A.G.M.: ≤100 -- --	≤200/400^a <i>126 MF/100 ml 235 MF/100 ml</i>	Water contact recreation^b, noncontact recreation. <i>Recreation involving contact with the water, recreation not involving contact with the water, municipal or domestic supply, or both, irrigation, wildlife propagation and stock watering. and watering of livestock.</i>

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

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

e. ~~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.~~

Sec. 4. NAC 445A.161 is hereby amended to read as follows:
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.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES <i>As designated in NAC 445A.159 (Most stringent use listed first)</i>
Temperature °C Maximum ΔT^a <i>Single Value</i>	ΔT = 10°C; 0°C^a	Nov.-Apr.: ≤13°C May-Jun.: ≤17°C Jul.-Oct.: ≤23°C ΔT ≤2°C; ≤0°C^a	Aquatic life^b and water contact recreation. <i>Propagation of aquatic life and recreation involving contact with the water.</i>
pH [Units] <i>Single Value</i>	--	S.V.: 7.0—8.3 <i>Within range 6.5 -9.0 SU ΔpH: ±0.5 SU Max.</i>	Water contact recreation^b, wildlife propagation^b. <i>Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, stock watering. watering of livestock, municipal or domestic supply, or both, and industrial supply.</i>

Total Phosphates (as P) {mg/l} Annual Average Single Value	-- --	{A-Avg.: ≤0.05 S.V.: ≤0.10} ≤0.05 mg/l ≤0.10 mg/l	{Aquatic life^b, water contact recreation^b} Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and {noncontact recreation} recreation not involving contact with the water.
Nitrogen Species {(N) mg/l} (as N) Annual Average Single Value Single Value	Total Nitrogen {A-Avg.: ≤0.6 S.V.: ≤1.0} ≤0.6 mg/l ≤1.0 mg/l	Nitrate : {S.V.:} ≤10 mg/l Nitrite : {S.V.:} ≤0.06 mg/l Ammonia : {S.V.:} ≤0.02 mg/l (un-ionized)	Municipal or domestic {supply^b, aquatic life^b, water contact recreation, stock watering, wildlife propagation and noncontact recreation} 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.
Dissolved Oxygen {mg/l} Single Value	-- --	{S.V.:} Nov.-Apr.: ≥6.0 May-Oct.: ≥5.0 Nov.-May: ≥6.0 mg/l June-Oct. ^b : ≥5.0 mg/l	{Aquatic life^b, water contact recreation, wildlife propagation, stock watering} Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock municipal or domestic supply, or both, and {noncontact recreation} recreation not involving contact with the water.
Suspended Solids {mg/l} Annual Average Single Value	{A-Avg.: ≤6.0 S.V.: ≤9.0} ≤0.6 mg/l ≤9.0 mg/l	{S.V.:} ≤25 mg/l	{Aquatic life^{b}}} Propagation of aquatic life.
Turbidity {NTU} Annual Average Single Value	{A-Avg.: ≤3.0 S.V.: ≤5.0} ≤3.0 NTU ≤5.0 NTU	{c}	{Aquatic life^{b}}} Propagation of aquatic life and municipal or domestic supply {, or both} .
Color {PCU} Single Value	{} ≤1 PCU	{e} ≤75 PCU	{Aquatic life^{b} and municipal}} Municipal or domestic supply {, or both, and propagation of aquatic life} .
Total Dissolved Solids {mg/l} Annual Average Single Value	{A-Avg.: ≤105 S.V.: ≤120} ≤105 mg/l ≤120 mg/l	{A-Avg.:} ≤500 mg/l	Municipal or domestic {supply^{b}}} , or both, irrigation and {stock watering} watering of livestock.
{Chlorides mg/l} Chloride Annual Average Single Value	{A-Avg.: ≤7 S.V.: ≤10} ≤7 mg/l ≤10 mg/l	-- {S.V.:} ≤250 mg/l	Municipal or domestic {supply^{b}, wildlife propagation}} supply, or both, propagation of wildlife, irrigation and {stock watering} watering of livestock.
Sulfate {mg/l} Single Value	≤25 mg/l	{S.V.:} ≤250 mg/l	Municipal or domestic {supply^{b}}} supply, or both.
Sodium {SAR} Adsorption Ratio Annual Average	--	{A-Avg.:} ≤8	{Irrigation^{b}}} Irrigation, and municipal or domestic supply {, or both} .
Alkalinity (as CaCO ₃) {mg/l}	--	less than 25% change from natural conditions	{Aquatic life^{b} and wildlife propagation}} Propagation of aquatic life and propagation of wildlife.
{Fecal Coliform No./100 ml} Escherichia coli Annual Geometric Mean Single Value	{A.G.M.: ≤25 S.V.: ≤100} -- --	{≤200/400*} 126 MF/100 ml 235 MF/100 ml	{Water contact recreation^{b}, noncontact recreation}} Recreation involving contact with the water, recreation not involving contact with the water, municipal or domestic supply, or both, irrigation {, wildlife propagation and stock watering} 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.

b. ~~{The most restrictive beneficial use}~~.

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

~~d. The dissolved oxygen standard from June to October applies only to the epilimnion.~~

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

~~e. 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.~~

Sec. 5. NAC 445A.162 is hereby amended to read as follows:
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 <i>As designated in NAC 445A.159 (Most stringent use listed first)</i>
Temperature {°C} Maximum ΔT <i>Single Value</i>	ΔT = {0°C} 0 °C ^a	Nov.-Apr.: ≤13°C May-Jun.: ≤17°C Jul.-Oct.: ≤23°C ΔT {±2°C} ≤2 °C ^a	{Aquatic life^b and water contact recreation.} <i>Propagation of aquatic life and recreation involving contact with the water.</i>
pH {Units} <i>Single Value</i>	-- --	{S.V.: 7.0 - 8.3} <i>Within range 6.5 - 9.0 SU</i> ΔpH: ±0.5 SU Max.	{Water contact recreation^b, wildlife propagation^b} <i>Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, {stock watering,} watering of livestock, municipal or domestic supply, or both, and industrial supply.</i>
Total Phosphates (as P) {mg/l} <i>Annual Average Single Value</i>	{A-Avg.: ≤0.07 S.V.: ≤0.10} <i>≤0.07 mg/l ≤0.10 mg/l</i>	{A-Avg.:} ≤0.1 mg/l	{Aquatic life^b, water contact recreation^b} <i>Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and {noncontact recreation.} recreation not involving contact with the water.</i>
Nitrogen Species {(N) - mg/l} (as N) <i>Annual Average Single Value Single Value</i>	Total Nitrogen {A-Avg.: ≤0.6 S.V.: ≤1.0} <i>≤0.6 mg/l ≤1.0 mg/l</i>	Nitrate: {S.V.:} ≤10 mg/l Nitrite: {S.V.:} ≤06 mg/l Ammonia: {S.V.:} ≤02 mg/l (un-ionized)	Municipal or domestic {supply^b, aquatic life^b, water contact recreation, stock watering, wildlife propagation and noncontact recreation.} <i>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.</i>
Dissolved Oxygen {mg/l} <i>Single Value</i>	-- --	{S.V.:} Nov.-May: ≥6.0 mg/l Jun.-Oct.: ≥5.0 mg/l	{Aquatic life^b, water contact recreation, wildlife propagation, stock watering.} <i>Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and {noncontact</i>

			recreation. <i>recreation not involving contact with the water.</i>
Suspended Solids (mg/l) <i>Single Value</i>	--	{S.V.:} ≤80 mg/l	{Aquatic life^b} <i>Propagation of aquatic life.</i>
Turbidity (NTU) <i>Single Value</i>	--	{d} <i>b</i>	{Aquatic life^b} <i>Propagation of aquatic life and municipal or domestic supply {+}, or both.</i>
Color (PCU) <i>Single Value</i>	--	{e} ≤5 PCU	{Aquatic life^b and municipal} <i>Municipal or domestic supply {+}, or both, and propagation of aquatic life.</i>
Total Dissolved Solids (mg/l) <i>Annual Average Single Value</i>	{A-Avg.: ≤175 S.V.: ≤260} ≤175 mg/l ≤260 mg/l	{A-Avg.:} ≤500 mg/l	Municipal or domestic {supply^b} <i>supply, or both, irrigation and {stock watering} <i>watering of livestock.</i></i>
{Chlorides – mg/l} <i>Chloride Annual Average Single Value</i>	{A-Avg.: ≤16 S.V.: ≤30} ≤16 mg/l ≤30 mg/l	-- {S.V.:} ≤250 mg/l	Municipal or domestic {supply^b, wildlife propagation} <i>supply, or both, propagation of wildlife, irrigation and {stock watering} <i>watering of livestock.</i></i>
Sulfate (mg/l) <i>Single Value</i>	--	{S.V.:} ≤250 mg/l	Municipal or domestic {supply^b} <i>supply, or both.</i>
Sodium (SAR) <i>Adsorption Ratio Annual Average</i>	--	{A-Avg.:} ≤8	{Irrigation^b} <i>Irrigation, and municipal or domestic supply {+}, or both.</i>
Alkalinity (as CaCO ₃) (mg/l)	--	less than 25% change from natural conditions	{Aquatic life^b and wildlife propagation} <i>Propagation of aquatic life and propagation of wildlife.</i>
{Fecal Coliform- No./100 ml} <i>Escherichia coli Annual Geometric Mean Single Value</i>	{A.G.M.: ≤50 S.V.: ≤150} -- --	{≤200/400^a} <i>126 MF/100 ml 235 MF/100 ml</i>	{Water contact recreation^b, noncontact recreation} <i>Recreation involving contact with the water, recreation not involving contact with the water, municipal or domestic supply, or both, irrigation {+}, wildlife propagation and stock watering} <i>and watering of livestock.</i></i>

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

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

e. ~~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.~~

Sec. 6. NAC 445A.163 is hereby amended to read as follows:
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 <i>As designated in NAC 445A.159 (Most stringent use listed first)</i>
Temperature {°C} Maximum ΔT Single Value	ΔT = 10°C 0 °C ^a	Nov.-Apr.: ≤13°C May-Jun.: ≤17°C Jul.-Oct.: ≤23°C ΔT 12°C ≤ 2°C ^a	{Aquatic life^b and water contact recreation.} Propagation of aquatic life and recreation involving contact with the water.
pH {Units} Single Value	--	{S.V.: 7.0–8.3} Within range 6.5 - 9.0 SU ΔpH: ±0.5 SU Max.	{Water contact recreation^b, wildlife propagation^{b}}} Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, {stock watering.} watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) {mg/l} Annual Average Single Value	{S.V.:} ≤0.15 mg/l	{A-Avg.:} ≤0.10 mg/l	{Aquatic life^b, water contact recreation^{b}}} Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and {noncontact recreation.} recreation not involving contact with the water.
Nitrogen Species {(N) mg/l} (as N) Annual Average Single Value Single Value	Total Nitrogen {A-Avg.: ≤1.0} {S.V.: ≤1.2} ≤1.0 mg/l ≤1.2 mg/l	Nitrate: {S.V.:} ≤10 mg/l Nitrite: {S.V.:} ≤06 mg/l Ammonia: {S.V.:} ≤02 mg/l (un-ionized)	Municipal or domestic {supply^b, aquatic life^b, water contact recreation, stock watering, wildlife propagation and noncontact recreation.} 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.
Dissolved Oxygen {mg/l} Single Value	-- --	{S.V.:} Nov.-May: ≥6.0 mg/l Jun.-Oct.: ≥5.0 mg/l	{Aquatic life^b, water contact recreation, wildlife propagation, stock watering.} Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and {noncontact recreation.} recreation not involving contact with the water.
Suspended Solids {mg/l} Single Value	--	{S.V.:} ≤80 mg/l	{Aquatic life^{b}}} Propagation of aquatic life.
Turbidity {NTU} Single Value	--	{t} b	{Aquatic life^{b}}} Propagation of aquatic life and municipal or domestic supply {t} , or both.
Color {PCU} Single Value	{t} ≤46 PCU	{t} ≤75 PCU	{Aquatic life^{b} and municipal}} Municipal or domestic supply {t} , or both, and propagation of aquatic life.
Total Dissolved Solids {mg/l} Annual Average Single Value	{A-Avg.: ≤330} {S.V.: ≤425} ≤330 mg/l ≤425 mg/l	{A-Avg.:} ≤500 mg/l	Municipal or domestic {supply^{b}}} supply, or both, irrigation and {stock watering.} watering of livestock.
{Chlorides mg/l} Chloride Annual Average Single Value	{A-Avg.: ≤22} {S.V.: ≤28} ≤22 mg/l ≤28 mg/l	-- {S.V.:} ≤250 mg/l	Municipal or domestic {supply^{b}, wildlife propagation.}} supply, or both, propagation of wildlife, irrigation and {stock watering.} watering of livestock.
Sulfate {mg/l} Single Value	{t} ≤74 mg/l	{S.V.:} ≤250 mg/l	Municipal or domestic {supply^{b}}} supply, or both.

Sodium {SAR} <i>Adsorption Ratio</i> <i>Annual Average</i>	--	{A-Avg:} ≤8	Irrigation^b Irrigation and municipal or domestic supply {} , or both.
Alkalinity (as CaCO ₃) {mg/l}	--	less than 25% change from natural conditions	{Aquatic life^b and wildlife propagation.} Propagation of aquatic life and propagation of wildlife.
{Fecal Coliform- No./100 ml} <i>Escherichia coli</i> <i>Annual Geometric Mean</i> <i>Single Value</i>	{A.G.M.: ≤125 S.V.: ≤350} -- --	{≤200/400} <i>126 MF/100 ml</i> <i>235 MF/100 ml</i>	{Water contact recreation^b; noncontact recreation.} <i>Recreation involving contact with the water, recreation not involving contact with the water, municipal or domestic supply, or both, irrigation, wildlife propagation and stock watering.} and watering of livestock.</i>

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

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

e. ~~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.~~

Sec. 7. NAC 445A.164 is hereby amended to read as follows:
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 <i>As designated in NAC 445A.159</i> <i>(Most stringent use listed first)</i>
Temperature {°C} Maximum ΔT_a} <i>Single Value</i>	ΔT = 10°C 0°C	Nov.-Apr.: ≤13°C May-Jun.: ≤17°C Jul.-Oct.: ≤23°C ΔT 1°C ≤2°C	{Aquatic life^b and water contact recreation.} <i>Propagation of aquatic life and recreation involving contact with the water.</i>

pH {Units} Single Value	--	{S.V.: 7.0 - 8.3} Within range 6.5 - 9.0 SU ΔpH: ±0.5 SU Max.	{Water contact recreation^b, wildlife propagation^b} Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, {stock watering^c} watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) {mg/l} Annual Average	--	{A-Avg.:} ≤0.1 mg/l	{Aquatic life^b, water contact recreation^b} Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and {noncontact recreation^c} recreation not involving contact with the water.
Nitrogen Species {(N) mg/l} (as N) Annual Average Single Value Single Value	{Total Nitrates A-Avg.: ≤0.25 S.V.: ≤0.45} Total Nitrate ≤0.25 mg/l ≤0.45 mg/l	Nitrate: {S.V.:} ≤10 mg/l Nitrite: {S.V.:} ≤06 mg/l Ammonia: {S.V.:} ≤02 mg/l (un-ionized)	Municipal or domestic {supply^b, aquatic life^b, water contact recreation^b, stock watering^c, wildlife propagation^b and noncontact recreation^c} 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.
Dissolved Oxygen {mg/l} Single Value	--	{S.V.:} Nov.-May: ≥6.0 mg/l Jun.-Oct.: ≥5.0 mg/l	{Aquatic life^b, water contact recreation^b, wildlife propagation^b, stock watering^c} Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and {noncontact recreation^c} recreation not involving contact with the water.
Suspended Solids {mg/l} Single Value	{} ≤45 mg/l	{S.V.:} ≤80 mg/l	{Aquatic life^b} Propagation of aquatic life.
Turbidity {NTU} Single Value	--	{d} b	{Aquatic life^{b}}} Propagation of aquatic life and municipal or domestic supply {} , or both.
Color {PCU} Single Value	--	{t} ≤75 PCU	{Aquatic life^b and municipal} Municipal or domestic {supply^b} supply, or both, and propagation of aquatic life.
Total Dissolved Solids {mg/l} Annual Average Single Value	{A-Avg.: ≤220 S.V.: ≤300} ≤220 mg/l ≤300 mg/l	{A-Avg.:} ≤500 mg/l	Municipal or domestic {supply^b} supply, or both, irrigation and {stock watering^c} watering of livestock.
{Chlorides mg/l} Chloride Annual Average Single Value	{A-Avg.: ≤5 S.V.: ≤7} ≤5 mg/l ≤7 mg/l	-- {S.V.:} ≤250 mg/l	Municipal or domestic {supply^b, wildlife propagation^{b}}} supply, or both, propagation of wildlife, irrigation and {stock watering^c} watering of livestock.
Sulfate {mg/l} Single Value	--	{S.V.:} ≤250 mg/l	Municipal or domestic {supply^{b}}} supply, or both.
Sodium {SAR} Adsorption Ratio Annual Average	--	{A-Avg.:} ≤8	{Irrigation^{b}}} Irrigation and municipal or domestic supply {} , or both.
Alkalinity (as CaCO ₃) {mg/l}	--	less than 25% change from natural conditions	{Aquatic life^b and wildlife propagation^{b}}} Propagation of aquatic life and propagation of wildlife.
{Fecal Coliform-No./100 ml} Escherichia coli Annual Geometric Mean Single Value	{} -- --	{≤200/400^c} 126 MF/100 ml 235 MF/100 ml	{Water contact recreation^b, noncontact recreation^c} Recreation involving contact with the water, recreation not involving contact with the water, municipal or domestic supply, or both, irrigation {} , {wildlife propagation^{b}} and stock watering^c} 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.
- b. ~~{The most restrictive beneficial use.}~~

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

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

~~f. 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.~~

Sec. 8. NAC 445A.165 is hereby amended to read as follows:
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.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES <i>As designated in NAC 445A.159 (Most stringent use listed first)</i>
Temperature {°C} Maximum ΔT Single Value	ΔT = 10°C 0 °C ^a	Nov.-Apr.: ≤13°C May-Jun.: ≤17°C Jul.-Oct.: ≤23°C ΔT ≤2°C ≤2 °C ^a	{Aquatic life^b and water contact recreation.} <i>Propagation of aquatic life and recreation involving contact with the water.</i>
pH {Units} Single Value	--	{S.V.: 7.0 - 8.3} <i>Within range 6.5 - 9.0 SU</i> ΔpH: ±0.5 SU Max.	{Water contact recreation^b, wildlife propagation^b} <i>Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, {stock watering,} watering of livestock, municipal or domestic supply, or both, and industrial supply.</i>
Total Phosphates (as P) {mg/l} Annual Average	--	{A-Avg.:} ≤0.1 mg/l	{Aquatic life^b, water contact recreation^b} <i>Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and {noncontact recreation.} recreation not involving contact with water.</i>
Nitrogen Species {(N) mg/l} (as N) Annual Average Single Value Single Value	Total Nitrogen {A-Avg.: ≤0.8 {S.V.: ≤1.4} ≤0.8 mg/l ≤1.4 mg/l	Nitrate: {S.V.:} ≤10 mg/l Nitrite: {S.V.:} ≤06 mg/l Ammonia: {S.V.:} ≤.02 mg/l (un-ionized)	Municipal or domestic {supply^b, aquatic life^b, water contact recreation, stock watering, wildlife propagation and noncontact recreation.} <i>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.</i>
Dissolved Oxygen {mg/l} Single Value	--	{S.V.:} Nov.-May: ≥6.0 mg/l Jun.-Oct.: ≥5.0 mg/l	{Aquatic life^b, water contact recreation, wildlife propagation, stock watering.} <i>Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and {noncontact recreation.} recreation not involving contact with the</i>

			<i>water.</i>
Suspended Solids †mg/l <i>Single Value</i>	†S.V.: ≤30 mg/l	†S.V.: ≤80 mg/l	†Aquatic life^b† <i>Propagation of aquatic life.</i>
Turbidity †NTU <i>Single Value</i>	--	†† b	†Aquatic life^b† <i>Propagation of aquatic life</i> and municipal or domestic supply †† , or both.
Color †PCU <i>Single Value</i>	--	†† ≤75 PCU	†Aquatic life^b and municipal† <i>Municipal</i> or domestic supply †† , or both, and <i>propagation of aquatic life.</i>
Total Dissolved Solids †mg/l <i>Annual Average</i> <i>Single Value</i>	†A. Avg.: ≤175 —S.V.: ≤210† ≤175 mg/l ≤210 mg/l	†A. Avg.: ≤500 mg/l	Municipal or domestic †supply^b† <i>supply, or both,</i> irrigation and †stock watering† <i>watering of livestock.</i>
†Chlorides—mg/l <i>Chloride</i> <i>Annual Average</i> <i>Single Value</i>	†A. Avg.: ≤5 S.V.: ≤7† ≤5 mg/l ≤7 mg/l	-- †S.V.: ≤250 mg/l	Municipal or domestic †supply^b, wildlife propagation† <i>supply, or both, propagation of wildlife,</i> irrigation and †stock watering† <i>watering of livestock.</i>
Sulfate †mg/l <i>Single Value</i>	†† ≤6 mg/l	†S.V.: ≤250 mg/l	Municipal or domestic †supply^b† <i>supply, or both.</i>
Sodium †SAR† <i>Adsorption Ratio</i> <i>Annual Average</i>	†A. Avg.: ≤2	†A. Avg.: ≤8	†Irrigation^b† <i>Irrigation</i> and municipal or domestic supply †† , or both.
Alkalinity (as CaCO ₃) †mg/l	--	less than 25% change from natural conditions	†Aquatic life^b and wildlife propagation† <i>Propagation of aquatic life and propagation of wildlife.</i>
†Fecal Coliform—No./100 ml <i>Escherichia coli</i> <i>Annual Geometric Mean</i> <i>Single Value</i>	†A.G.M.: ≤20 —S.V.: ≤50† -- --	†≤200/400*† <i>126 MF/100 ml</i> <i>235 MF/100 ml</i>	†Water contact recreation^b, noncontact recreation† <i>Recreation involving contact with the water, recreation not involving contact with the water,</i> municipal or domestic supply, or both, irrigation †wildlife propagation and stock watering† and <i>watering of livestock.</i>

- 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. ~~†Increase in color must not be more than 10 PCU above natural conditions.~~
- d. ~~†~~ Increase in turbidity must not be more than 10 NTU above natural conditions.
- e. ~~†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.†~~

Sec. 9. NAC 445A.166 is hereby amended to read as follows:
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 ~~state line.~~ **East Walker River at Bridge B-1475.**

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES <i>As designated in NAC 445A.159 (Most stringent use listed first)</i>
Temperature {°C} Maximum ΔT_a Single Value	ΔT = {0°C} 0 °C ^a	Nov.-Apr.: ≤13°C May-Jun.: ≤17°C Jul.-Oct.: ≤23°C ΔT {≤2°C} ≤ 2 °C ^a	{Aquatic life^b and water contact recreation} <i>Propagation of aquatic life and recreation involving contact with the water.</i>
pH {Units} Single Value	--	{S.V.: 7.0 - 8.3} <i>Within range 6.5 - 9.0 SU</i> ΔpH: ±0.5 SU Max.	{Water contact recreation^b, wildlife propagation^{b}}} <i>Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, {stock watering} watering of livestock, municipal or domestic supply, or both, and industrial supply.</i>
Total Phosphates (as P) {mg/l} Annual Average Single Value	--	{A-Avg.: ≤0.16 S.V.: ≤0.39} <i>≤0.16 mg/l ≤0.39 mg/l</i>	{Aquatic life^b, water contact recreation^{b}}} <i>Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and {noncontact recreation} recreation not involving contact with the water.</i>
Nitrogen Species {(N) - mg/l} (as N) Annual Average Single Value Single Value	Total Nitrogen {A-Avg.: ≤0.9 S.V.: ≤1.7} <i>≤0.9 mg/l ≤1.7 mg/l</i>	Nitrate: {S.V.:} ≤10 mg/l Nitrite: {S.V.:} ≤06 mg/l Ammonia: {S.V.:} ≤02 mg/l (un-ionized)	Municipal or domestic {supply^b, aquatic life^b, water contact recreation, stock watering, wildlife propagation and noncontact recreation} <i>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.</i>
Dissolved Oxygen {mg/l} Single Value	-- --	{S.V.:} Nov.-May: ≥6.0 mg/l Jun.-Oct.: ≥5.0 mg/l	{Aquatic life^b, water contact recreation, wildlife propagation, stock watering} <i>Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and {noncontact recreation} recreation not involving contact with the water.</i>
Suspended Solids {mg/l} Single Value	--	{S.V.:} ≤80 mg/l	{Aquatic life^{b}}} <i>Propagation of aquatic life.</i>
Turbidity {NTU} Single Value	--	{d} b	{Aquatic life^{b}}} <i>Propagation of aquatic life and municipal or domestic supply {}, or both.</i>
Color {PCU} Single Value	--	{t} ≤75 PCU	{Aquatic life^{b} and municipal}} <i>Municipal or domestic supply {}, or both, propagation of aquatic life.</i>
Total Dissolved Solids {mg/l} Annual Average Single Value	{A-Avg.: ≤320 S.V.: ≤390} <i>≤320 mg/l ≤390 mg/l</i>	{A-Avg.:} ≤500 mg/l	Municipal or domestic {supply^{b}}} <i>supply, or both, irrigation and {stock watering} watering of livestock.</i>
{Chlorides - mg/l} Chloride Annual Average Single Value	{A-Avg.: ≤13 S.V.: ≤19} <i>≤13 mg/l ≤19 mg/l</i>	-- {S.V.:} ≤250 mg/l	Municipal or domestic {supply^{b}, wildlife propagation}} <i>supply, or both, propagation of wildlife, irrigation and {stock watering} watering of livestock.</i>
Sulfate {mg/l} Single Value	{t} ≤44 mg/l	{S.V.:} ≤250 mg/l	Municipal or domestic {supply^{b}}} <i>supply, or both.</i>

Sodium {SAR} <i>Adsorption Ratio</i> <i>Annual Average</i>	--	{A-Avg:} ≤8	Irrigation^b Irrigation and municipal or domestic supply {, or both.}
Alkalinity (as CaCO ₃) {mg/l}	--	less than 25% change from natural conditions	{Aquatic life^b and wildlife propagation.} Propagation of aquatic life and propagation of wildlife.
{Fecal Coliform No./100 ml} <i>Escherichia coli</i> <i>Annual Average</i> <i>Geometric Mean</i> <i>Single Value</i>	{A.G.M.: ≤75 —S.V.: ≤350} -- --	{≤200/400*} <i>126 MF/100 ml</i> <i>235 MF/100 ml</i>	{Water contact recreation^b; noncontact recreation.} <i>Recreation involving contact with the water, recreation not involving contact with the water, municipal or domestic supply, or both, irrigation, wildlife propagation and stock watering, and watering of livestock.</i>

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

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

e. ~~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.~~

Sec. 10. NAC 445A.167 is hereby amended to read as follows:
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 <i>As designated in NAC 445A.159</i> <i>(Most stringent use listed first)</i>
Temperature {°C} Maximum		Nov.-Mar.: ≤13°C Apr.-Jun.: {≤24°C} ≤23°C ^b Jul.-Oct.: ≤28°C	{Aquatic life^b and water contact recreation.} <i>Propagation of aquatic life and recreation involving contact with the water.</i>

ΔT <i>Single Value</i>	ΔT = 10°C 0°C ^a	ΔT ≤2°C	
pH {Units} <i>Single Value</i>	--	{S.V.: 7.0 - 8.3} Within range 6.5 - 9.0 SU ΔpH: ±0.5 SU Max.	{Water contact recreation^b, wildlife propagation^b} Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, {stock watering} watering of livestock, municipal or domestic supply, or both, and industrial supply.
Total Phosphates (as P) {mg/l} <i>Annual Average Single Value</i>	--	{A.Avg.: ≤0.26} {S.V.: ≤0.40} ≤0.26 mg/l ≤0.40 mg/l	{Aquatic life^b, water contact recreation^b} Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and {noncontact recreation} recreation not involving contact with the water.
Nitrogen Species {(N) -mg/l} (as N) <i>Annual Average Single Value Single Value</i>	Total Nitrogen {A.Avg.: ≤1.2} {S.V.: ≤1.5} ≤1.2 mg/l ≤1.5 mg/l	Nitrate : {S.V.: ≤10} mg/l Nitrite : {S.V.: ≤5} ≤1 mg/l Ammonia : {S.V.: ≤0.06} mg/l (un-ionized)	Municipal or domestic {supply^b, aquatic life^b, water contact recreation, stock watering, wildlife propagation and noncontact recreation} 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.
Dissolved Oxygen {mg/l} <i>Single Value</i>	--	{S.V.:} Nov.-May: ≥6.0 mg/l Jun.-Oct.: ≥5.0 mg/l	{Aquatic life^b, water contact recreation, wildlife propagation, stock watering} Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and {noncontact recreation} recreation not involving contact with the water.
Suspended Solids {mg/l} <i>Single Value</i>	--	{S.V.:} ≤80 mg/l	{Aquatic life^{b}}} Propagation of aquatic life.
Turbidity {NTU} <i>Single Value</i>	--	d	{Aquatic life^{b}}} Propagation of aquatic life and municipal or domestic supply {, or both} .
Color {PCU} <i>Single Value</i>	--	{} ≤75 PCU	{Aquatic life^{b}} and municipal} Municipal or domestic supply {, or both, and propagation of aquatic life} .
Total Dissolved Solids {mg/l} <i>Annual Average Single Value</i>	{A.Avg.: ≤400} {S.V.: ≤450} ≤400 mg/l ≤450 mg/l	{A.Avg.:} ≤500 mg/l	Municipal or domestic {supply^{b}}} , or both, irrigation and {stock watering} watering of livestock.
{Chlorides -mg/l} Chloride <i>Annual Average Single Value</i>	{A.Avg.: ≤30} {S.V.: ≤35} ≤30 mg/l ≤35 mg/l	-- {S.V.:} ≤250 mg/l	Municipal or domestic {supply^b, wildlife propagation} supply, or both, propagation of wildlife irrigation and {stock watering} watering of livestock.
Sulfate {mg/l} <i>Annual Average Single Value</i>	{A.Avg.: ≤95} {S.V.: ≤110} ≤95 mg/l ≤110 mg/l	{S.V.:} ≤250 mg/l	Municipal or domestic {supply^{b}}} supply, or both.
Sodium {SAR} Adsorption Ratio <i>Annual Average</i>	{SAR A.Avg.:} ≤3	{A.Avg.:} ≤8	{Irrigation^{b}}} Irrigation and municipal or domestic supply {, or both} .
Alkalinity (as CaCO ₃) {mg/l}	--	less than 25% change from natural conditions	{Aquatic life^{b}} and wildlife propagation} Propagation of aquatic life and propagation of wildlife.
{Fecal Coliform - No./100 ml} Escherichia coli <i>Annual Geometric Mean Single Value</i>	{A.G.M.: ≤100} {S.V.: ≤200}	{≤200/400} 126 MF/100 ml 235 MF/100 ml	{Water contact recreation^b, noncontact recreation} Recreation involving contact with the water, recreation not involving contact with the water, municipal or domestic supply, or both, irrigation {, wildlife propagation and stock watering} 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.

b. ~~The most restrictive beneficial use.~~

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

c. 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.

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

~~f. 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.~~

Sec. 11. NAC 445A.168 is hereby amended to read as follows:
445A.168

STANDARDS OF WATER QUALITY

Walker River

Control Point at Schurz Bridge. The limits of this table apply from the inlet to Walker Lake to Weber Reservoir.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES <i>As designated in NAC 445A.159 (Most stringent use listed first)</i>
Temperature {°C} Maximum ΔTΔt <i>Single Value</i>	ΔT = {0°C} 0 °C^a	Nov.-Mar.: ≤ 13 °C Apr.-Jun.: {23°C} ≤ 23 °C ^b Jul.-Oct.: ≤ 28 °C ΔT ≤ 2 °C	{Aquatic life^b and water contact recreation.} <i>Propagation of aquatic life and recreation involving contact with the water.</i>
pH {Units} <i>Single Value</i>	--	{S.V.: 7.0 - 8.3} <i>Within range 6.5 - 9.0 SU ΔpH: ± 0.5 SU Max.</i>	{Water contact recreation^b, wildlife propagation^b} <i>Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, {stock watering,} watering of livestock, municipal or domestic supply, or both, and industrial supply.</i>
Total Phosphates (as P) {mg/l} <i>Annual Average Single Value</i>	--	{A-Avg.: ≤ 0.17 S.V.: ≤ 0.23} <i>≤ 0.17 mg/l ≤ 0.23 mg/</i>	{Aquatic life^b, water contact recreation^b} <i>Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and {noncontact recreation.} recreation not involving contact with the water.</i>

Nitrogen Species {(N) - mg/l} (as N) <i>Annual Average Single Value Single Value Single Value</i>	Total Nitrogen {A-Avg.: ≤1.2 -S.V.: ≤1.5} ≤1.2 mg/l ≤1.5 mg/l	Nitrate : {S.V.:} ≤10 mg/l Nitrite : {S.V.:} ≤1 mg/l ^c Ammonia : {S.V.:} ≤.06 mg/l (un-ionized)	Municipal or domestic {supply^b, aquatic life^b, water contact recreation, stock watering, wildlife propagation and noncontact recreation} <i>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.</i>
Dissolved Oxygen {mg/l} <i>Single Value</i>	-- --	{S.V.:} Nov.-Apr.: ≥6.0 May-Oct.: ≥5.0} Nov.-May: ≥6.0 mg/l June-Oct.: ≥5.0 mg/l	{Aquatic life^b, water contact recreation, wildlife propagation, stock watering} <i>Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and noncontact recreation} recreation not involving contact with the water.</i>
Suspended Solids {mg/l} <i>Single Value</i>	{Ann. Avg.:} ≤60 mg/l	{S.V.:} ≤80 mg/l	{Aquatic life^{b}}} <i>Propagation of aquatic life.</i>
Turbidity {NTU} <i>Single Value</i>	--	d	{Aquatic life^{b}}} <i>Propagation of aquatic life and municipal or domestic supply {, or both}.</i>
Color {PCU} <i>Single Value</i>	--	{} ≤75 PCU	{Aquatic life^{b} and municipal}} <i>Municipal or domestic supply {, or both, and propagation of aquatic life}.</i>
Total Dissolved Solids {mg/l} <i>Annual Average Single Value</i>	{A-Avg.: ≤390 -S.V.: ≤570} ≤390 mg/l ≤570 mg/l	{A-Avg.:} ≤500 mg/l	Municipal or domestic {supply^{b}}} <i>supply, or both, irrigation and stock watering} watering of livestock.</i>
{Chlorides - mg/l} <i>Chloride Annual Average Single Value</i>	{A-Avg.: ≤23 -S.V.: ≤34} ≤23 mg/l ≤34 mg/l	-- {S.V.:} ≤250 mg/l	Municipal or domestic {supply^{b}, wildlife propagation}} <i>supply, or both, propagation of wildlife, irrigation and stock watering} watering of livestock.</i>
Sulfate {mg/l} <i>Single Value</i>	--	{S.V.:} ≤250 mg/l	Municipal or domestic {supply^{b}}} <i>supply, or both.</i>
Sodium {SAR} <i>Absorption Ratio Annual Average</i>	{SAR-A-Avg.:} ≤3	{A-Avg.:} ≤8	{Irrigation^{b}}} <i>Irrigation and municipal or domestic supply {, or both}.</i>
Alkalinity (as CaCO ₃) {mg/l}	--	less than 25% change from natural conditions	{Aquatic life^{b} and wildlife propagation}} <i>Propagation of aquatic life and propagation of wildlife.</i>
{Fecal Coliform No./100 ml} <i>Escherichia coli Annual Geometric Mean Single Value</i>	{A-G.M.: ≤50 -S.V.: ≤110} -- --	{≤200/400^a} 126 MF/100 ml 235 MF/100 ml	{Water contact recreation^{b}, noncontact recreation}} <i>Recreation involving contact with the water, recreation not involving contact with the water, municipal or domestic supply, or both, irrigation {, wildlife propagation and stock watering} and watering of livestock.</i>

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. ~~Increase in color must not be more than 10 PCU above natural conditions.~~ *The temperature beneficial use standard is ≤1 °C from February through June when Lahontan cutthroat trout are present.*

c. *The nitrite beneficial use standard is ≤0.06 mg/l from February through June when Lahontan cutthroat trout are present.*

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

~~f. 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.~~

Sec. 12. NAC 445A.169 is hereby amended to read as follows:
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 <i>Designated in NAC 445A.159 (Most stringent use listed first)</i>
Temperature {°C- Maximum ΔT-} <i>Single Value</i>	ΔT = {0°C} 0 °C^a	Nov.-Apr.: ≤13°C May-Jun.: ≤17°C Jul.-Oct.: ≤23°C ΔT {≤2°C} ≤ 2 °C^a	{Aquatic life^b and water contact recreation.} <i>Propagation of aquatic life and recreation involving contact with the water.</i>
pH {Units} <i>Single Value</i>	--	{S.V.: 7.0 - 8.3} <i>Within range 6.5 - 9.0 SU</i> ΔpH: ±0.5 SU Max.	{Water contact recreation^b, wildlife propagation^b.} <i>Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, irrigation, {stock watering.} watering of livestock, municipal or domestic supply, or both, and industrial supply.</i>
Total Phosphates (as P) {mg/l} <i>Annual Average Single Value</i>	{S.V.:} ≤0.13 mg/l	{A-Avg.} ≤0.1 mg/l	{Aquatic life^b, water contact recreation^b.} <i>Propagation of aquatic life, recreation involving contact with the water, municipal or domestic supply, or both, and {noncontact recreation.} recreation not involving contact with the water.</i>
Nitrogen Species {(N) -mg/l} (as N) <i>Annual Average Single Value Single Value</i>	Total {Nitrates A-Avg.: ≤0.20 S.V.: ≤0.27} Nitrate <i>≤0.20 mg/l ≤0.27 mg/l</i>	Nitrate : {S.V.:} ≤10 mg/l Nitrite : {S.V.:} ≤0.06 mg/l Ammonia : {S.V.:} ≤0.02 mg/l (un-ionized)	Municipal or domestic {supply^b, aquatic life^b, water contact recreation, stock watering, wildlife propagation and noncontact recreation.} <i>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.</i>
Dissolved Oxygen {mg/l} <i>Single Value</i>	--	{S.V.:} Nov.-May: ≥6.0 mg/l Jun.-Oct.: ≥5.0 mg/l	{Aquatic life^b, water contact recreation, wildlife propagation, stock watering.} <i>Propagation of aquatic life, recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply, or both, and {noncontact recreation.} recreation not involving contact with the water.</i>

Suspended Solids {mg/l} Single Value	--	{S.V.:} ≤80 mg/l	{Aquatic life^b} Propagation of aquatic life.
Turbidity {NTU} Single Value	--	{d} b	{Aquatic life^b} Propagation of aquatic life and municipal or domestic supply {d} , or both.
Color {PCU} Single Value	--	{d} ≤75 PCU	{Aquatic life^b and municipal} Municipal or domestic supply {d} , or both, and propagation of aquatic life.
Total Dissolved Solids {mg/l} Annual Average Single Value	{A-Avg.: ≤110} {S.V.: ≤130} ≤110 mg/l ≤130 mg/l	{A-Avg.:} ≤500 mg/l	Municipal or domestic {supply^b} , or both, irrigation and {stock-watering>} watering of livestock.
{Chlorides mg/l} Chloride Annual Average Single Value	{A-Avg.: ≤5} {S.V.: ≤7} ≤5 mg/l ≤7 mg/l	-- {S.V.:} ≤250 mg/l	Municipal or domestic {supply^b, wildlife propagation} supply, or both, propagation of wildlife, irrigation and {stock-watering>} watering of livestock.
Sulfate {mg/l} Single Value	--	{S.V.:} ≤250 mg/l	Municipal or domestic {supply^b} supply, or both.
Sodium {SAR} Adsorption Ratio Annual Average	--	{A-Avg.:} ≤8	{Irrigation^b} Irrigation and municipal or domestic supply {d} , or both.
Alkalinity (as CaCO ₃) {mg/l}	--	less than 25% change from natural conditions	{Aquatic life^b and wildlife propagation} Propagation of aquatic life and propagation of wildlife.
{Fecal Coliform No./100 ml} Escherichia coli Annual Geometric Mean Single Value	{A.G.M.: ≤100} {S.V.: ≤200}	{200/400} 126 MF/100 ml 235 MF/100 ml	{Water contact recreation^b, noncontact recreation} Recreation involving contact with the water, recreation not involving contact with the water, municipal or domestic supply, or both, irrigation {d} {wildlife propagation and stock-watering} 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.
- b. ~~{The most restrictive beneficial use.}~~
- c. ~~Increase in color must not be more than 10 PCU above natural conditions.~~
- d. ~~Increase in turbidity must not be more than 10 NTU above natural conditions.~~
- e. ~~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.~~