

**ADOPTED REGULATION OF THE
STATE ENVIRONMENTAL COMMISSION**

LCB File No. R101-14

Effective April 4, 2016

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

AUTHORITY: §§1-3, NRS 445A.425 and 445A.520.

A REGULATION relating to water quality; revising certain water quality standards relating to the Carson River and Lahontan Reservoir; and providing other matters properly relating thereto.

Legislative Counsel’s Digest:

The State Environmental Commission is required to establish water quality standards to protect and ensure the continued beneficial use of each stream segment and other body of surface water in this State. (NRS 445A.520) This regulation revises certain water quality standards relating to the Carson River and Lahontan Reservoir.

Section 1. NAC 445A.1792 is hereby amended to read as follows:

445A.1792 The designated beneficial uses for select bodies of water within the Carson

Region are prescribed in this section:

Water Body Name	Segment Description	Beneficial Uses											Aquatic Life Species of Concern	Water Quality Standard NAC Reference		
		Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh				
Carson River, West Fork at the state line	At the California-Nevada state line.	X	X	X	X	X	X	X	X						Rainbow trout and brown trout	NAC 445A.1796

Water Body Name	Segment Description	Beneficial Uses											Aquatic Life Species of Concern	Water Quality Standard NAC Reference		
		Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh				
Bryant Creek near the state line	From the California-Nevada state line to its confluence with the East Fork of the Carson River.	X	X	X	X	X	X	X	X						Rainbow trout and brown trout	NAC 445A.1798
Carson River, East Fork at the state line	At the California-Nevada state line.	X	X	X	X	X	X	X	X						Rainbow trout and brown trout	NAC 445A.1802
Carson River, East Fork at U.S. Highway 395 south of Gardnerville	From the California-Nevada state line to the Riverview Mobile Home Park at U.S. Highway 395 south of Gardnerville, except for the length of the river within the exterior borders of the Washoe Indian Reservation.	X	X	X	X	X	X	X	X						Rainbow trout and brown trout	NAC 445A.1804
Carson River, East Fork at Muller Lane	From the Riverview Mobile Home Park at U.S. Highway 395 to Muller Lane, except for the length of the river within the exterior borders of the Washoe Indian Reservation.	X	X	X	X	X	X	X	X						Rainbow trout and brown trout	NAC 445A.1806

Water Body Name	Segment Description	Beneficial Uses										Aquatic Life Species of Concern	Water Quality Standard NAC Reference		
		Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance			Marsh	
Carson River at Genoa Lane	The East Fork of the Carson River from Muller Lane to the West Fork, the West Fork of the Carson River from the California-Nevada state line to the East Fork, and the main stem of the Carson River from the confluence of the East and West Forks to Genoa Lane.	X	X	X	X	X	X	X	X					Catfish, rainbow trout and brown trout	NAC 445A.1808
Carson River at Cradlebaugh Bridge	From Genoa Lane to U.S. Highway 395 at Cradlebaugh Bridge, except for the length of the river within the exterior borders of the Washoe Indian Reservation.	X	X	X	X	X	X	X	X					Catfish, rainbow trout and brown trout	NAC 445A.1812
Carson River at the Mexican Ditch Gage	From U.S. Highway 395 at Cradlebaugh Bridge to the Mexican Ditch Gage.	X	X	X	X	X	X	X	X					Rainbow trout and brown trout	NAC 445A.1814
Carson River near New Empire	From the Mexican Ditch Gage to New Empire.	X	X	X	X	X	X	X	X					Smallmouth bass, rainbow trout and brown trout	NAC 445A.1816
Carson River at Dayton Bridge	From New Empire to the Dayton Bridge.	X	X	X	X	X	X	X	X					Walleye, channel catfish and white bass	NAC 445A.1818

Water Body Name	Segment Description	Beneficial Uses											Aquatic Life Species of Concern	Water Quality Standard NAC Reference		
		Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh				
Carson River at {Weeks} <i>Lahontan Reservoir</i>	From the Dayton Bridge to {the U.S. Highway 95 Alt Bridge at Weeks.} <i>Lahontan Reservoir.</i>	X	X	X	X	X	X	X	X						Walleye, channel catfish and white bass	NAC 445A.1822
{Carson River at Lahontan Dam} <i>Lahontan Reservoir</i>	{From the U.S. Highway 95 Alt Bridge at Weeks to Lahontan Dam.} <i>The entire reservoir.</i>	X	X	X	X	X	X	X	X						Walleye, channel catfish and white bass	NAC 445A.1824
Lower Carson River	From Lahontan Reservoir to the Carson Sink (the natural channel).	X	X	X	X	X	X	X	X							NAC 445A.1826
Daggett Creek	From its origin to the Carson River.	X	X	X	X	X	X		X							NAC 445A.1828
Genoa Creek	From its origin to the first diversion box at the mouth of the canyon, near the east line of section 9, T. 13 N., R. 19 E., M.D.B. & M.	X	X	X	X	X	X		X							NAC 445A.1832
Sierra Canyon Creek	From its origin to the first diversion structure at the mouth of the canyon, near the east line of section 4, T. 13 N., R. 19 E., M.D.B. & M.	X	X	X	X	X	X		X							NAC 445A.1834

Water Body Name	Segment Description	Beneficial Uses											Aquatic Life Species of Concern	Water Quality Standard NAC Reference			
		Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh					
Clear Creek at the gaging station	From its origin to gaging station number 10-3105, located in the NE 1/4 of the NW 1/4 of section 1, T. 14 N., R. 19 E., M.D.B. & M., except for the length of the creek within the exterior borders of the Washoe Indian Reservation.	X	X	X	X	X	X		X								NAC 445A.1836
Clear Creek at the Carson River	From gaging station number 10-3105, located in the NE 1/4 of the NW 1/4 of section 1, T. 14 N., R. 19 E., M.D.B. & M., to the Carson River, except for the length of the creek within the exterior borders of the Washoe Indian Reservation.	X	X	X	X	X	X	X	X					Trout			NAC 445A.1838
Kings Canyon	From its origin to the point of diversion of the Carson City Water Department, near the east line of section 23, T. 15 N., R. 19 E., M.D.B. & M.	X	X	X	X	X	X		X								NAC 445A.1842

Water Body Name	Segment Description	Beneficial Uses											Aquatic Life Species of Concern	Water Quality Standard NAC Reference		
		Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh				
Ash Canyon	From its origin to the first point of diversion of the Carson City Water Department, near the west line of section 12, T. 15 N., R. 19 E., M.D.B. & M.	X	X	X	X	X	X		X							NAC 445A.1844
V-Line Canal	From the Carson diversion dam to its division into the S and L Canals.	X	X	X	X	X	X	X	X							NAC 445A.1846
Rattlesnake Reservoir	The entire reservoir; also known as S-Line Reservoir.	X	X	X	X	X	X	X	X							NAC 445A.1848
Indian Lakes	All the lakes, including Upper Lake, Likes Lake, Papoose Lake, Big Indian Lake, Little Cottonwood Lake, Big Cottonwood Lake and East Lake.	X	X	X	X	X	X	X	X							NAC 445A.1852
Diagonal Drain	Its entire length.	X	X	X	X	X	X	X	X							NAC 445A.1854
South Carson Lake	The entire lake; also known as Government Pasture and the Greenhead Gun Club.	X	X	X	X	X	X	X	X							NAC 445A.1856
Harmon Reservoir	The entire reservoir.	X	X	X	X	X	X	X	X							NAC 445A.1858
Stillwater Marsh Road	East of Westside Road and north of the community of Stillwater.	X	X	X	X	X	X	X	X							NAC 445A.1862

Water Body Name	Segment Description	Beneficial Uses											Aquatic Life Species of Concern	Water Quality Standard NAC Reference		
		Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh				
Stillwater Marsh west of Westside Road	West of Westside Road and south of the community of Stillwater.	X	X	X		X		X	X							NAC 445A.1864
Irrigation	Irrigation															
Livestock	Watering of livestock															
Contact	Recreation involving contact with the water															
Noncontact	Recreation not involving contact with the water															
Industrial	Industrial supply															
Municipal	Municipal or domestic supply, or both															
Wildlife	Propagation of wildlife															
Aquatic	Propagation of aquatic life															
Aesthetic	Waters of extraordinary ecological or aesthetic value															
Enhance	Enhancement of water quality															
Marsh	Maintenance of a freshwater marsh[

Sec. 2. NAC 445A.1822 is hereby amended to read as follows:

445A.1822 The limits of this table apply to the body of water known as the Carson River from the Dayton Bridge to ~~the U.S. Highway 95 Alt Bridge at Weeks.~~ *Lahontan Reservoir.*

This segment of the Carson River is located in Lyon County.

STANDARDS OF WATER QUALITY

Carson River at ~~Weeks~~ *Lahontan Reservoir*

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use ^a														
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh				
Beneficial Uses			X	X	X	X	X	X	X	X	X						
Aquatic Life Species of Concern			Walleye, channel catfish and white bass.														
Temperature - °C ΔT^b - °C	 $\Delta T = 0$	S.V. Nov-Mar ≤ 11 S.V. Apr-Jun ≤ 24 S.V. Jul-Oct ≤ 28 $\Delta T \leq 2$				*	X										
pH - SU	S.V. 7.5 - 8.5	S.V. 6.5 - 9.0 $\Delta pH \pm 0.5$	X	X	X	*			X	X	*						
Dissolved Oxygen - mg/l		S.V. ≥ 5.0	X		*	X	X	X			X						
Total Phosphates <i>Phosphorus</i> (as P) - mg/l		A-Avg. ≤ 0.1			*	*	X	X									
Nitrogen Species (as N) - mg/l	Total Nitrogen A-Avg. ≤ 0.6 S.V. ≤ 1.1	Nitrate S.V. ≤ 10 Nitrite S.V. ≤ 1.0	X		*	X	X	*			X						
Total Ammonia (as N) - mg/l		^c			*												
Suspended Solids - mg/l		S.V. ≤ 80			*												
Turbidity - NTU	A-Avg. ≤ 25	S.V. ≤ 50			*				X								
Color - PCU	^d	S.V. ≤ 75							*								
Total Dissolved Solids - mg/l	A-Avg. ≤ 250 S.V. ≤ 380	A-Avg. ≤ 500	X	X					*								
Chloride - mg/l	A-Avg. ≤ 10 S.V. ≤ 18	S.V. ≤ 250	X	X					*		X						

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use ^a												
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh		
Sulfate - mg/l	A-Avg. ≤ 100 S.V. ≤ 140	S.V. ≤ 250							*						
Sodium - SAR	A-Avg. ≤ 2	A-Avg. ≤ 8		*					X						
Alkalinity (as CaCO ₃) - mg/l		< 25% change from natural conditions			*						X				
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X								
Fecal Coliform - No./100 ml	A.G.M. ≤ 90 S.V. ≤ 240	S.V. ≤ 1,000	X	*			X	X		X					

* = The most restrictive beneficial use.

X = Beneficial use.

^a Refer to NAC 445A.122 and 445A.1792 for beneficial use terminology.

^b 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.

^c The ambient water quality criteria for ammonia are specified in NAC 445A.118.

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

Sec. 3. NAC 445A.1824 is hereby amended to read as follows:

445A.1824 The limits of this table apply to the *entire* body of water known as ~~the Carson River from the U.S. Highway 95 Alt Bridge at Weeks to Lahontan Dam. This segment of the Carson River~~ *Lahontan Reservoir. Lahontan Reservoir* is located in Churchill and Lyon Counties.

STANDARDS OF WATER QUALITY

~~Carson River at Lahontan Dam~~ *Lahontan Reservoir*

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use ^a												
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh		
Beneficial Uses			X	X	X	X	X	X	X	X	X				
Aquatic Life Species of Concern			Walleye, channel catfish and white bass.												
Temperature - °C		S.V. Nov-Mar ≤ 11 S.V. Apr-Jun ≤ 24 S.V. Jul-Oct ≤ 28													
ΔT ^b - °C	ΔT = 0	ΔT ≤ 2			*	X									
pH - SU		S.V. 6.5 - 9.0 ΔpH ± 0.5	X	X	X *	*		X	X	*					
Dissolved Oxygen - mg/l		S.V. ≥ 5.0 ^c	X		*	X	X	X		X					
Total Phosphates <i>Phosphorus</i> (as P) - mg/l		S.V. ≤ 0.06 <i>Avg. Jun-Sep ≤ 0.09^d</i>			*	*	X	X							
Nitrogen Species (as N) - mg/l	Total Nitrogen A-Avg. ≤ 1.3 S.V. ≤ 1.7	Nitrate S.V. ≤ 10 Nitrite S.V. ≤ 1.0	X		*	X	X	*		X					
Total Ammonia (as N) - mg/l		1.0 ^e			*										
Suspended Solids - mg/l		S.V. ≤ 25			*										
Turbidity - NTU	A-Avg. ≤ 15 S.V. ≤ 27	S.V. ≤ 50			*			X							
Color - PCU	100 ^f	S.V. ≤ 75						*							
Total Dissolved Solids - mg/l	A-Avg. ≤ 175 S.V. ≤ 225	A-Avg. ≤ 500	X	X				*							

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use ^a												
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh		
Chloride - mg/l	A-Avg. ≤ 9 S.V. ≤ 15	S.V. ≤ 250 <i>1-hour Avg. ≤ 860^g</i> <i>96-hour Avg. ≤ 230</i>	X	X	*				X	X					
Sulfate - mg/l	A-Avg. ≤ 35 S.V. ≤ 50	S.V. ≤ 250							*						
Sodium - SAR	A-Avg. ≤ 2	A-Avg. ≤ 8		*					X						
Alkalinity (as CaCO ₃) - mg/l		< 25% change from natural conditions <i>S.V. ≥ 20</i>			*						X				
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 235				*	X								
Fecal Coliform - No./100 ml	A.G.M. ≤ 25 S.V. ≤ 75	S.V. ≤ 1,000	X	*			X	X		X					

* = The most restrictive beneficial use.

X = Beneficial use.

^a Refer to NAC 445A.122 and 445A.1792 for beneficial use terminology.

^b 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.

^c *When reservoir is stratified, the dissolved oxygen criterion applies only to epilimnion.*

^d *June-September average for a basin within the upper meter of the water column.*

^e The ambient water quality criteria for ammonia are specified in NAC 445A.118.

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

^g *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

Permanent Regulation – Informational Statement

A Regulation Relating to Water Quality Standards

Legislative Review of Adopted Regulations as Required
by Administrative Procedures Act, NRS 233B.066 & 233B.0603.10(f)

State Environmental Commission (SEC) LCB File No: R101 -14

Regulation R101-14:

The Nevada Division of Environmental Protection (NDEP) is proposing to revise water quality standards for the Carson River and Lahontan Reservoir (NAC 445A.1822 - 445A.1824). Proposed changes include: 1) separate the delineation of Lahontan Reservoir from the Carson River; 2) revise phosphorus, chloride and alkalinity criteria; and 3) clarify that the dissolved oxygen criterion applies only in the epilimnion when the reservoir is stratified. Lahontan Reservoir water quality standards were last reviewed in 1984 and the revisions were deemed necessary to update water quality criteria based upon more recent data, scientific literature and guidance published by the U.S. Environmental Protection Agency (EPA).

1. Need for Regulation:

Nevada Revised Statutes (NRS) 445A.520 requires that standards be set at levels designed to protect beneficial uses for surface waters of the state. Nevada has been delegated authority to set water quality standards under the Clean Water Act and federal regulations (40CFR 131.20) require states to periodically review their water quality standards, and as appropriate update those standards. A review of the available data, scientific literature and EPA guidance indicated that the proposed standards changes be made to protect the beneficial uses currently designated for these waters.

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

On November 2 and November 4, 2015, NDEP conducted public workshops on NDEP's Draft Regulation. The workshops were held in Carson City and Silver Springs, Nevada. The meeting location in Carson City was at the Bryan Building located at 901 S. Stewart Street and the meeting in Silver Springs was at Hillyard Hall, located at 2945 Ft. Churchill Street.

Six (6) members of the public were present at the Carson City workshop. Those people were:

Chris Mahannah, Churchill County
Ed James, Carson Water Subconservancy District
Brian Wadsworth, Pyramid Lake Paiute Tribe
Kameron Morgan, Pyramid Lake Paiute Tribe

Walter Winder, Truckee Carson Irrigation District
Rusty Jardine, Truckee Carson Irrigation District

One (1) member of the public was present at the Silver Springs workshop. That person was:

Stephanie Wilson, EPA

Questions included but were not limited to locational distinctions, dissolved oxygen and stratification issues, consequences for not meeting the proposed standards and ramifications on upstream waters.

There were no written comments.

Questions from the public presented at the workshop were addressed by NDEP staff; summary minutes of the workshop are posted on the SEC website at:
http://sec.nv.gov/docs/0216/R101_14_Workshop_Minutes.pdf .

Following the workshop, the SEC held a formal regulatory hearing on February 10, 2016 at the Nevada Department of Conservation and Natural Resources, 901 South Stewart Street, Carson City, Nevada. A public notice and agenda for the regulatory meeting was posted at the meeting location, at the State Library in Carson City, at the Office of the Division of Environmental Protection in Las Vegas, at the Division of Minerals in Carson City, at the Department of Agriculture, on the LCB website, on the Division of Administration website and on the SEC website.

Copies of the agenda, the public notice, and the proposed permanent regulation R101-14 were also made available at all public libraries throughout the state as well as to individuals on the SEC mailing list and the Bureau of Water Quality Planning electronic mailing list.

The public notice for the proposed regulation was published in the Las Vegas Review Journal and Reno Gazette Journal newspapers once a week for three consecutive weeks prior to the SEC regulatory meeting. Other information about this regulation was made available on the SEC website at: http://sec.nv.gov/main/hearing_0216.htm .

3. The number of persons who attended the SEC Regulatory Hearing:

- (a) Attended February 10, 2016 hearing: 5 (approximately)
- (b) Testified on this Petition at the hearing: 0
- (c) Submitted to the agency written comments: 0

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

Comments were solicited from affected businesses through e-mail, a public workshop and at the February 10, 2016 SEC hearing as noted in number 2 above.

5. 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 without changes because there were no comments received by NDEP and no testimony in opposition to the regulatory changes during the hearing.

6. The estimated economic effect of the adopted regulation on the business which it is to regulate and on the public.

(a) Regulated Business/Industry. The proposed revisions are not expected to have any direct economic effect on the regulated community both immediate and long term. Water quality standards, in of themselves, do not directly regulate businesses, although standards do form the basis for effluent limits imposed by NDEP through the National Pollutant Discharge Elimination System (NPDES) permit program and the terms and conditions imposed through the Clean Water Act 401 program for any dredging or filling activity in Nevada waters. Currently, there are no active NPDES permits for discharges to Lahontan Reservoir. The proposed changes are not expected to negatively impact any future permits as the proposed criteria for total phosphorus and alkalinity are less restrictive than the current criteria, and the proposed criterion for chloride is only slightly more restrictive than the current criterion.

(b) Public. The proposed revisions are not expected to have any economic effect on the public both immediately and long-term. Overall, the current water quality standards have beneficial effects in terms of protecting public health and welfare, supporting aquatic, wildlife, and recreational uses. All of these factors provide economic benefits to the public. The proposed revisions are not expected to change the current level of public benefit.

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

Implementation of the proposed regulations is not expected to result in additional cost to the agency for enforcement.

8. 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.

There are no other state or government agency regulations which the proposed revisions duplicate.

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

There is no federal regulation for these proposed water quality standards revisions. The federal government has delegated responsibility for establishing water quality standards to NDEP. Setting the proposed water quality standards at levels to protect beneficial uses of surface waters of the State enables NDEP to maintain its delegation of the Clean Water Act.

10. 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 regulation does not address fees.