

**PROPOSED REGULATION OF THE
STATE ENVIRONMENTAL COMMISSION**

LCB File No. R101-14

**P2014-04
June 27, 2014**

AUTHORITY: §§1-318, NRS 445A.425 and 445A.520.

A PERMANENT REGULATION relating to water quality; making various changes in provisions that establish standards for water quality; and providing other matters properly relating thereto.

Petition P2014-04 Changes to the Nevada Administrative Code revising the Nevada water quality regulations for the Carson River and Lahontan Reservoir located in the Lower Carson River Basin

Explanation – Matter in Blue is *new*; matter in bold red and ~~omitted material~~ is material to be omitted.

Proposed Revisions:

NAC 445A.1792 Carson Region: Designated beneficial uses. (NRS 445A.425, 445A.520)
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	X				Rainbow trout and brown trout	NAC 445A.1796
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.	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.	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	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.	X	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	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	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	X					Walleye, channel catfish and white bass	NAC 445A.1818
Carson River at {Weeks} Lahontan Reservoir	From the Dayton Bridge to the U.S. Highway 95 Alt Bridge at Weeks} Lahontan Reservoir.	X	X	X	X	X	X	X	X	X					Walleye, channel catfish and white bass	NAC 445A.1822
{Carson River at Lahontan Dam} Lahontan Reservoir	{From the U.S. Highway 95 Alt Bridge at Weeks to Lahontan Dam} The entire reservoir.	X	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	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	
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.	X	X	X	X	X	X		X						NAC 445A.1836	

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 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.	X	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
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 east of Westside Road	East of Westside Road and north of the community of Stillwater.	X	X	X	X	X	X	X	X							NAC 445A.1862
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															

NAC 445A.1822 Carson Region: Carson River at ~~{Weeks}~~ Lahontan Reservoir. (NRS 445A.425, 445A.520) 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		S.V. Nov-Mar ≤ 11 S.V. Apr-Jun ≤ 24 S.V. Jul-Oct ≤ 28 ΔT ≤ 2			*	X										
ΔT ^b - □C	ΔT = 0															
pH - SU	S.V. 7.5 - 8.5	S.V. 6.5 - 9.0 ΔpH ± 0.5	X	X	X	*		X	X	*						
Total Phosphates (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			*											
Dissolved Oxygen - mg/l		S.V. ≥ 5.0	X		*	X	X	X		X						
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					
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. ≤ 1000	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.

NAC 445A.1824 Carson Region: ~~{Carson River at Lahontan Dam}~~ **Lahontan Reservoir.** (NRS 445A.425, 445A.520) The limits of this table apply to the body of water known as ~~{the Carson River from the U.S. Highway 95 Alt Bridge at Weeks to Lahontan Dam}~~ **Lahontan Reservoir.** ~~{This segment of the Carson River}~~ **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 □T ≤ 2			*	X										
ΔT ^b - □C	ΔT = 0															
pH - SU		S.V. 6.5 - 9.0 ΔpH ± 0.5	X	X	{X} *	*			X	X	*					
Total {Phosphates} Phosphorus (as P) - mg/l		<i>Jun-Sep Avg. ≤ 0.14^c</i> {S.V.} ≤ {0.06} 0.14^c			*	*	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		{e} ^d			*											
<i>Chlorophyll-a - μg/l</i>		<i>Jun-Sep Avg. ≤ 15^c</i>			*	*	X	X								
Dissolved Oxygen - mg/l		S.V. ≥ 5.0 ^e	X		*	X	X	X			X					
Suspended Solids - mg/l		S.V. ≤ 25			*											
Turbidity - NTU	A-Avg. ≤ 15 S.V. ≤ 27	S.V. ≤ 50			*				X							
Color - PCU	{f} ^f	S.V. ≤ 75							*							
Total Dissolved Solids - mg/l	A-Avg. ≤ 175 S.V. ≤ 225	A-Avg. ≤ 500	X	X					*							
Chloride - mg/l	A-Avg. ≤ 9 S.V. ≤ 15	{S.V. ≤ 250} <i>1-hour avg. < 230^g</i> <i>96-hour avg. < 860</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. ≤ 1000	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 *June-September average for a basin within the upper meter of the water column. These nutrient criteria are considered attained if:*
- 1. The chlorophyll-a criterion is met regardless of the level of total phosphorus; or*
 - 2. If chlorophyll-a data are not available, the total phosphorus criterion is met.*
- ^d The ambient water quality criteria for ammonia are specified in NAC 445A.118.
- ^e *When reservoir is stratified, the dissolved oxygen criterion applies only to the epilimnion.*
- ^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.*