Presented below are water quality standards that are in effect for Clean Water Act purposes.

EPA is posting these standards as a convenience to users and has made a reasonable effort to assure their accuracy. Additionally, EPA has made a reasonable effort to identify parts of the standards that are not approved, disapproved, or are otherwise not in effect for Clean Water Act purposes.

445A.194 Requirements to maintain existing higher quality for area of Lake Mead; standards for beneficial uses for area not covered by NAC 445A.196. (NRS 445A.425, 445A.520)

1. The requirements to maintain existing higher quality become effective when the existing water quality is higher than the water quality standard for beneficial uses, as determined by the commission. Once the requirements to maintain existing higher quality become effective, the requirements are applicable thereafter. The requirements to maintain existing higher quality for the area of Lake Mead which is not covered by NAC 445A.197 are set forth in NAC 445A.195, and include, without limitation, requirements relating to temperature, pH, chlorophyll a, total dissolved solids, chloride, sulfate, total inorganic nitrogen, turbidity and color.

2. The water quality standards for beneficial uses for the area of Lake Mead which is not covered by NAC 445A.197 are set forth in NAC 445A.195, and include, without limitation, standards relating to temperature, pH, dissolved oxygen, un-ionized ammonia, total dissolved solids, chloride, sulfate, suspended solids, nitrate, nitrite, turbidity, fecal coliform and E coli. The beneficial uses for this area are:

(a) Irrigation;
(b) Watering of livestock;
(c) Recreation involving contact with the water;
(d) Recreation not involving contact with the water;
(e) Industrial supply;
(f) Municipal or domestic supply, or both;
(g) Propagation of wildlife; and
(h) Propagation of aquatic life, including, without limitation, a warmwater fishery.

(Added to NAC by Environmental Comm'n, eff. 11-22-82; A 12-17-87; R062-98, 8-4-98)

445A.195 Lake Mead excluding area covered by NAC 445A.197. (NRS 445A.425, 445A.520)

Lake Mead

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES AS DESIGNATED IN NAC 445A.194 (Most Stringent Use Listed First)
Temperature Single Value	ΔT 0°C[a]	ΔT 2°C[a]	Propagation of aquatic life, including, without limitation, a warmwater fishery.
pH Single Value	95% of samples not to exceed 8.8 SU	Within Range 6.5 - 9.0 SU	Propagation of aquatic life, including, without limitation, a warmwater fishery, recreation involving contact with water, propagation of wildlife, municipal or domestic supply, or both, industrial supply, irrigation and watering of livestock.
Dissolved Oxygen Single Value	--	≥5 mg/l in the epilimnion or average in water column during periods of nonstratification	Propagation of aquatic life, including, without limitation, a warmwater fishery, watering of livestock, recreation involving contact with water, recreation not involving contact with water, municipal or domestic supply, or both, and propagation of wildlife.
Chlorophyll a - μg/l	*b*		Recreation involving contact with water, propagation of aquatic life, including, without limitation, a warmwater fishery, recreation not involving contact with water and municipal or domestic supply, or both.
Un-ionized Ammonia - mg/l	--	c	Propagation of aquatic life, including, without limitation, a warmwater fishery.
Total Dissolved Solids Single Value	Flow Weighted Annual Average ≤723 mg/l measured below Hoover Dam[d] --	-- ≤1000 mg/l	Municipal or domestic supply, or both, and irrigation.
Chloride Single Value	e	≤400 mg/l[e]	Municipal or domestic supply, or both, watering of livestock and propagation of wildlife.
Sulfate Single Value	e	≤500 mg/l[e]	Municipal or domestic water supply, or both.
Suspended Solids Single Value	--	≤25 mg/l	Propagation of aquatic life, including, without limitation, a warmwater fishery, and recreation not involving contact with water.
Nitrogen Species as N Single Value	Total Inorganic Nitrogen 95% of samples ≤4.5 mg/l	Nitrate ≤ 10 mg/l Nitrite ≤1 mg/l	Municipal or domestic supply, or both, watering of livestock, propagation of aquatic life, including, without limitation, a warmwater fishery, and propagation of wildlife.
Turbidity Single Value	f	≤25 NTU	Propagation of aquatic life, including, without limitation, a warmwater fishery, municipal or domestic supply, or both, recreation involving contact with water and recreation not involving contact with water.
Fecal Coliform		≤200/400[g] MF or MPN/100ml	Recreation involving contact with water, irrigation, recreation not involving contact with water, municipal or domestic supply, or both, propagation of wildlife and watering of livestock.
E.Coli 30-day Log Mean Single Value	-- --	≤126 MF/100 ml ≤235 MF/100 ml	Recreation involving contact with water, recreation not involving contact with water, municipal or domestic supply, or both, irrigation and watering of livestock.
Color-Pt-Co Units Single Value	h	--	Recreation not involving contact with water and municipal or domestic supply, or both.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.

b. The requirements for chlorophyll a are:

(1) Not more than one monthly mean in a calendar year at Station 3 may exceed 45μg/l.

(2) The mean for chlorophyll a in summer (July 1 - September 30) must not exceed 40 μg/l at Station 3, and the mean for 4 consecutive summer years must not exceed 30 μg/l. The sample must be collected from the center of the channel and must be representative of the top 5 meters of the channel. "Station 3" means the center of the channel at which the depth is from 16 to 18 meters.

(3) The mean for chlorophyll a in the growing season (April 1-September 30) must not exceed 16 μg/l at LM4 and 9 μg/l at LM5. LM4 is located just outside of the Las Vegas Bay launch ramp and marina, next to buoy RW "1." LM5 is located next to buoy RW "A" with the southshore landmark of Cresent Island.

(4) The mean for chlorophyll a in the growing season (April 1 - September 30) must not exceed 5 μg/l in the open water of Boulder Basin, Virgin Basin, Gregg Basin and Pierce Basin. The single value must not exceed 10 μg/l for more than 5% of the samples.

(5) Not less than 2 samples must be collected between the months of March and October. During months when only one sample is available, that value must be used in place of the monthly mean.

c. See footnote b to NAC 445A.197.

d. The details of this standard are set forth in the "1996 Review - Water Quality Standards for Salinity, Colorado River System" approved by the commission on March 25, 1998.

e. The combination of this constituent with other constituents comprising TDS must not result in the violation of the TDS standards for Lake Mead and the Colorado River.

f. Turbidity must not exceed that characteristic of natural conditions by more than 10 Nephelometric Units.

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

h. Color must not exceed that characteristic of natural conditions by more than 10 units Platinum-Cobalt Scale.

The commission recognizes that at entrances of tributaries to Lake Mead, localized violations of standards may occur.

(Added to NAC by Environmental Comm'n, eff. 11-22-82; A 12-17-87; R062-98, 8-4-98)

445A.196 Requirements to maintain existing higher quality for area of Lake Mead from western boundary of Las Vegas Bay Campground to confluence of Las Vegas Wash; standards for beneficial uses; goal of requirements and standards. (NRS 445A.425, 445A.520)

1. The requirements to maintain existing higher quality become effective when the existing water quality is higher than the water quality standard for beneficial uses, as determined by the commission. Once the requirements to maintain existing higher quality become effective, the requirements are applicable thereafter. For the area of Lake Mead from the western boundary of the Las Vegas Bay Campground to the confluence of the Las Vegas Wash, the requirements to maintain existing higher quality are set forth in NAC 445A.197, and include, without limitation, requirements relating to temperature, pH, total inorganic nitrogen, total dissolved solids and turbidity.

2. The water quality standards for beneficial uses for Lake Mead from the western boundary of the Las Vegas Bay Campground to the confluence of the Las Vegas Wash are set forth in NAC 445A.197, and include, without limitation, standards relating to temperature, pH, dissolved oxygen, nitrate, nitrite, un-ionized ammonia, total dissolved solids, suspended solids, turbidity and fecal coliform. The beneficial uses for this area are:

(a) Irrigation;

(b) Watering of livestock;

(c) Recreation not involving contact with water;

(d) Industrial supply;

(e) Propagation of wildlife; and

(f) Propagation of aquatic life, including, without limitation, a warmwater fishery.

3. The goal of the requirements of subsection 1 and the standards of subsection 2 is to ensure that all of Lake Mead is fishable and swimable by the next triennual review required by the Clean Water Act, 33 U.S.C. §§ 1251 et seq.

(Added to NAC by Environmental Comm'n, eff. 11-22-82; A 12-17-87; R062-98, 8-4-98)

445A.197 Lake Mead from the western boundary of Las Vegas Bay Campground to confluence of Las Vegas Wash. (NRS 445A.425, 445A.520) Control point at the Western Boundary of Las Vegas Marina Campground.

Inner Las Vegas Bay

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARD FOR BENEFICIAL USES	BENEFICIAL USES AS DESIGNATED IN NAC 445A.196 (Most Stringent Use Listed First)
Temperature Single Value	ΔT 0°C[a]	ΔT 2°C[a]	Propagation of aquatic life, including, without limitation, a warmwater fishery.
pH Single Value	95% of samples not to exceed 8.9 SU	Within Range 6.5 - 9.0 SU	Propagation of aquatic life, including, without limitation, a warmwater fishery, propagation of wildlife, irrigation, industrial supply and watering of livestock.
Dissolved Oxygen Single Value	--	≥5 mg/l	Propagation of aquatic life, including, without limitation, a warmwater fishery, watering of livestock, recreation not involving contact with water and propagation of wildlife.
Nitrogen Species as Single Value	Total Inorganic Nitrogen 95% of samples ≤5.3 mg/l	Nitrate ≤90 mg/l Nitrite ≤5 mg/l	Propagation of aquatic life, including, without limitation, a warmwater fishery, watering of livestock and propagation of wildlife.
Un-ionized Ammonia as N -mg/l	--	b	Propagation of aquatic life, including, without limitation, a warmwater fishery.
Total Dissolved Solids Single Value	c	≤3000 mg/l	Watering of livestock and irrigation.
Suspended Solids Single Value	--	≤25 mg/l	Propagation of aquatic life, including, without limitation, a warmwater fishery and recreation not involving contact with water.
Turbidity Single Value	d	≤25 NTU	Propagation of aquatic life, including, without limitation, a warmwater fishery and recreation not involving contact with water.
Fecal Coliform MF or MPN/100 ml Single Value	--	e	Propagation of wildlife, recreation not involving contact with water, irrigation and watering of livestock.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.

b. The 4-day average for the concentration of un-ionized ammonia in the vertical column of water and the four-sample rolling average for each interval sampled must not exceed 0.05 mg/l more often than once every 3 years. The daily value for this average must account for diurnal fluctuation. Data must be collected at Station 2 from at least three locations between the surface and total depth. This standard is not applicable to the area between Station 2 and the confluence of the Las Vegas Wash. The single value must not exceed 0.45 mg/l more often than once every 3 years. "Station 2" means the center of the channel at which the depth is 10 meters.

c. Any increase in total dissolved solids must not result in a violation of the standards set forth in "1996 Review-Water Quality Standards for Salinity, Colorado River System" approved by the State Environmental Commission on March 25, 1998.

d. Turbidity must not exceed that characteristic of natural conditions by more than 10 Nephelometric Units.

e. Any discharge from a point source into Las Vegas Wash must not exceed a log mean of 200 per 100 ml. based on a minimum of not less than five samples taken over a 30-day period nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

The Commission recognizes that, because of discharges of tributaries, localized violations of standards may occur in the inner Las Vegas Bay.

(Added to NAC by Environmental Comm'n, eff. 11-22-82; A 12-17-87; 7-5-94; R062-98, 8-4-98)

445A.198 Requirements to maintain existing higher quality for area of Las Vegas Wash from Telephone Line Road to confluence of discharges from Clark County and City of Las Vegas wastewater treatment plants; standards for beneficial uses; goal of requirements and standards. (NRS 445A.425, 445A.520)

1. The requirements to maintain existing higher quality become effective when the existing water quality is higher than the water quality standard for beneficial uses, as determined by the commission. Once the requirements to maintain existing higher quality become effective, the requirements are applicable thereafter. For the area of the Las Vegas Wash from Telephone Line Road to the confluence of the discharges from the Clark County wastewater treatment plant and the City of Las Vegas wastewater treatment plant, which encompasses the City of Henderson wastewater treatment plant discharge, the requirements to maintain existing higher quality are set forth in NAC 445A.199, and include, without limitation, requirements relating to temperature, pH, total inorganic nitrogen and total dissolved solids.

2. The water quality standards for beneficial uses for the Las Vegas Wash from Telephone Line Road to the confluence of the discharges from the Clark County wastewater treatment plant and the City of Las Vegas wastewater treatment plant, which encompasses the City of Henderson wastewater treatment plant discharge, are set forth in NAC 445A.199 and include, without limitation, standards relating to pH, dissolved oxygen, nitrate, nitrite, total suspended solids, total dissolved solids and fecal coliform. The beneficial uses for this area are:

(a) Irrigation;

(b) Watering of livestock;

(c) Recreation not involving contact with water;

(d) Maintenance of a freshwater marsh;

(e) Propagation of wildlife; and

(f) Propagation of aquatic life, excluding fish. This paragraph does not preclude the establishment of a fishery.

3. The goal of the requirements of subsection 1 and standards of subsection 2 is to ensure that the beneficial uses for the Las Vegas Wash from Telephone Line Road to the confluence of the discharges from the Clark County wastewater treatment plant and the City of Las Vegas wastewater treatment plant, which encompasses the City of Henderson wastewater treatement plant discharge, will include, without limitation, the propagation of aquatic life, including, without limitation, fish by the next triennial review required by the Clean Water Act, 33 U.S.C. §§ 1251 et seq.

(Added to NAC by Environmental Comm'n, eff. 11-22-82; A 12-17-87; R062-98, 8-4-98)

445A.199 Las Vegas Wash from Telephone Line Road to confluence of discharges from City of Las Vegas and Clark County wastewater treatment plants. (NRS 445A.425, 445A.520) Control point at Telephone Line Road. The limits in this table apply from Telephone Line Road to the confluence of the discharges from the City of Las Vegas and Clark County wastewater treatment plants, which encompasses the City of Henderson wastewater treatment plant discharge.

Upper Las Vegas Wash

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARD FOR BENEFICIAL USES	BENEFICIAL USES AS DESIGNATED IN NAC 445A.198 (Most Stringent Use Listed First)
Temperature Single Value	ΔT 0°C[a]	--	--
pH Single Value		Within Range 6.5 - 9.0 SU	Propagation of aquatic life, excluding fish, propagation of wildlife, irrigation and watering of livestock.
Dissolved Oxygen-mg/l	--	b	Propagation of aquatic life, excluding fish, watering of livestock, recreation not involving contact with water and propagation of wildlife.
Nitrogen Species as N Single Value	Total Inorganic Nitrogen 95% of samples ≤20 mg/l	Nitrate ≤100 mg/l Nitrite ≤10 mg/l	Watering of livestock and propagation of wildlife.
Total Suspended Solids		≤135 mg/l[c]	Propagation of aquatic life, excluding fish.
Total Dissolved Solids at 180°C Single Value	95% of samples ≤1900 mg/l	≤3000 mg/l	Watering of livestock, irrigation and maintenance of a freshwater marsh.
Fecal Coliform MF or MPN/100 ml	--	d	Recreation not involving contact with water, propagation of wildlife, irrigation and watering of livestock.

a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone except during storm flow conditions.

b. Aerobic conditions are desirable for the beneficial uses of propagation of aquatic life, excluding fish, watering of livestock, recreation not involving contact with water and propagation of wildlife. So as not to prevent the development and restoration of marshes and wetlands in the Wash, aerobic conditions are established as a goal rather than a standard and the goal is not intended to preclude development of a limited fishery in selected areas. Aerobic conditions is intended to mean the absence of objectionable odors that may be caused by wastewater discharges in excess of existing odors.

c. Total suspended solids standard does not apply when flows are greater than 110 percent of average flow as measured at the nearest gage. "Average flow" is defined as the 12-month rolling average of the average monthly flow.

d. Any discharge from a point source into Las Vegas Wash must not exceed a log mean of 200 per 100 ml based on a minimum of not less than five samples taken over a 30-day period nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

(Added to NAC by Environmental Comm'n, eff. 11-22-82; A by R062-98, 8-4-98)

445A.200 Requirements to maintain existing higher quality for area from confluence of Las Vegas Wash with Lake Mead to Telephone Line Road; standards for beneficial uses; goal of requirements and standards. (NRS 445A.425, 445A.520)

1. The requirements to maintain existing higher quality become effective when the existing water quality is higher than the water quality standard for beneficial uses, as determined by the commission. Once the requirements to maintain existing higher quality become effective, the requirements are applicable thereafter. For the area from the confluence of the Las Vegas Wash with Lake Mead to Telephone Line Road, the requirements to maintain existing higher quality are set forth in NAC 445A.201, and include, without limitation, requirements relating to temperature, pH, total inorganic nitrogen and total dissolved solids.

2. The water quality standards for beneficial uses for the Las Vegas Wash from the confluence of the Las Vegas Wash with Lake Mead to Telephone Line Road are set forth in NAC 445A.201, and include, without limitation, standards relating to pH, dissolved oxygen, nitrate, nitrite, total suspended solids, total dissolved solids and fecal coliform. The beneficial uses for this area are:

(a) Irrigation;

(b) Watering of livestock;

(c) Recreation not involving contact with the water;

(d) Maintenance of a freshwater marsh;

(e) Propagation of wildlife; and

(f) Propagation of aquatic life, excluding fish. This paragraph does not preclude the establishment of a fishery.

3. The goal of the requirements of subsection 1 and standards of subsection 2 is to ensure that the beneficial uses for the Las Vegas Wash from the confluence of the Las Vegas Wash with Lake Mead to Telephone Line Road will include, without limitation, the propagation of aquatic life, including, without limitation, fish by the next triennial review required by the Clean Water Act, 33 U.S.C. §§ 1251 et seq.

(Added to NAC by Environmental Comm'n, eff. 11-22-82; A 12-17-87; R062-98, 8-4-98)

445A.201 Confluence of Las Vegas Wash with Lake Mead to Telephone Line Road. (NRS 445A.425, 445A.520) The limits in this table apply from the confluence of the Las Vegas Wash with Lake Mead to Telephone Line Road.

Lower Las Vegas Wash

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES AS DESIGNATED IN NAC 445A.200 (Most Stringent Use Listed First)
Temperature Single Value	ΔT 0°C[a]	--	--
pH Single Value		Within Range 6.5 - 9.0 SU	Propagation of aquatic life, excluding fish, propagation of wildlife, irrigation and watering of livestock.
Dissolved Oxygen-mg/l		b	Propagation of aquatic life, excluding fish, watering of livestock, recreation not involving contact with water and propagation of wildlife.
Nitrogen Species as N Single Value	Total Inorganic Nitrogen 95% of samples ≤17 mg/l	Nitrate ≤100 mg/l Nitrite ≤10 mg/l	Watering of livestock and propagation of wildlife.
Total Suspended Solids		≤135 mg/l[c]	Propagation of aquatic life, excluding fish.
Total Dissolved Solids at 180°C Single Value	95% of samples ≤2400 mg/l	≤3000 mg/l	Watering of livestock, irrigation and maintenance of a freshwater marsh.
Fecal Coliform MF or MPN/100 ml	--	d	Recreation not involving contact with water, propagation of wildlife, irrigation and watering of livestock.

a. Maximum allowable increase in temperature above receiving water temperature at the boundary of an approved mixing zone.

b. Aerobic conditions are desirable for the beneficial uses of propagation of aquatic life, excluding fish, watering of livestock, recreation not involving contact with the water and propagation of wildlife. So as not to prevent the development and restoration of marshes and wetlands in the Wash, aerobic conditions are established as a goal rather than a standard and the goal is not intended to preclude development of a limited fishery in selected areas. Aerobic conditions is intended to mean the absence of objectionable odors that may be caused by wastewater discharges in excess of existing odors.

c. This standard does not apply when flows are greater than 110 percent of average flow as measured at the nearest gage. As used in this paragraph, "average flow" means the 12-month rolling average of the average monthly flow.

d. Any discharge from a point source into Las Vegas Wash must not exceed a log mean of 200 per 100 ml based on a minimum of not less than five samples taken over a 30-day period nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 47, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]--(NAC A 11-22-82; R062-98, 8-4-98)