

# **Nevada Surface Water Quality Regulations**

## **Draft Rational Document**

### **Changes to the Nevada Administrative Code revising the Nevada water quality regulations for former “Class Waters” located in the Upper Humboldt River Basin**



Nevada Division of Environmental Protection  
Bureau of Water Quality Planning  
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DRAFT

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**Draft Rationale**  
**Proposed Changes to the Nevada Administrative Code**  
**Revising Nevada water quality regulations for the former “Class Waters”**  
**located in the Upper Humboldt River Basin**

**Introduction**

Nevada state law (NRS 445A.520) requires the state to establish water quality standards at a level necessary to protect beneficial uses of the surface waters of the state. Additionally, Section 303 of the Clean Water Act and 40 Code of Federal Regulations (40CFR) Part 131 require that States and authorized tribes routinely review and, as appropriate, modify surface water quality standards that protect the designated uses of a water body and provide a basis for controlling discharges or releases of pollutants. Water quality standards are composed of three parts: designated beneficial uses, water quality criteria to protect the uses and antidegradation considerations. This rationale discusses the revisions proposed by the Nevada Division of Environmental Protection (NDEP), Bureau of Water Quality Planning (BWQP) to the water quality regulations associated with waters located in the Upper Humboldt River Basin (NAC 445A.1432 – 1578).

**Background**

The NDEP has completed a review and evaluation of the water quality standards for waterbodies located in the Upper Humboldt River Basin (UHRB) in Elko, Eureka and White Pine Counties (see [Figure 1](#)). For this review, the UHRB includes the headwaters, tributaries, and main stem of the Humboldt River downstream to Palisade, Nevada.

Changes are proposed to the Nevada Administrative Code (NAC) revising the Nevada water quality regulations for the former “Class Waters” located in the UHRB (see [Figure 2](#)). The specific waterbodies addressed in this petition are shown in Table 1. Table 1 also indicates whether the waterbody is classified as a Trout or Non-Trout water. The designation influences the proposed numeric criteria for nitrite, total suspended solids and turbidity.

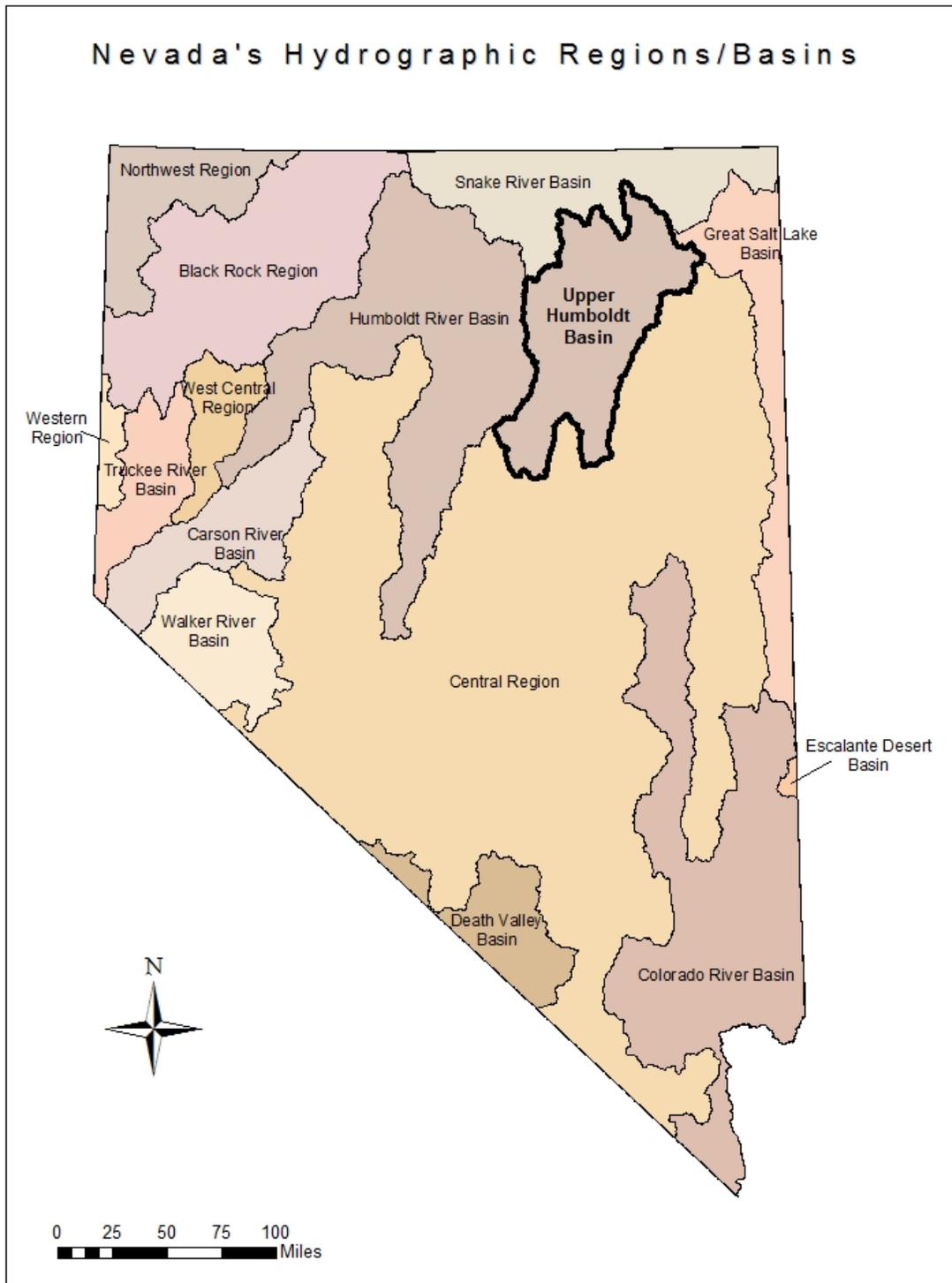
Prior to 2008, many waterbodies in Nevada were categorized by classes based on the degree of anthropogenic impact on the watershed. The UHRB contains former Class A, B, and C waters.

Class A waters included “waters or portions of waters located in areas of little human habitation, no industrial development or intensive agriculture and where the watershed is relatively undisturbed by man’s activity.”

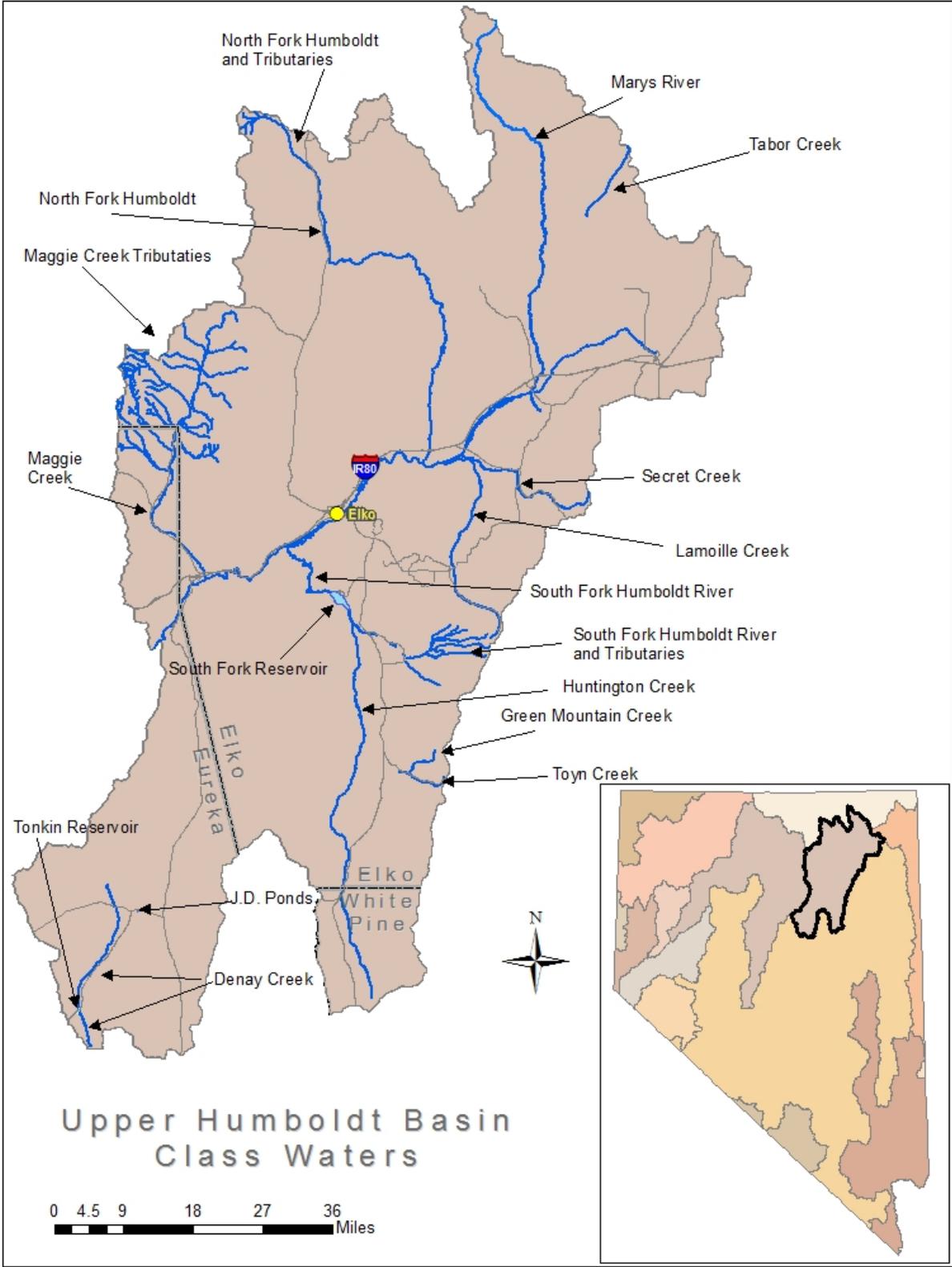
Class B waters included “waters or portions of waters which are located in areas of light or moderate human habitation, little industrial development, light-to-moderate agricultural development and where the watershed is only moderately influenced by man’s activity.”

Class C waters included “waters or portions of waters which are located in areas of moderate-to-urban human habitation, where industrial development is present in moderate amounts, agricultural practices are intensive and where the watershed is considerably altered by man’s activity.”

In 2008, the State Environmental Commission adopted revisions to the NAC which eliminated the Class structure and designated specific water quality standards for each waterbody. No changes were made in



**Figure 1. Upper Humboldt River Basin**



**Figure 2 Former “Class Waters” in the Upper Humboldt River Basin**

2008 to the existing beneficial uses, and no changes were made to numeric criteria except that criteria for E. coli and total ammonia were added.

NDEP is now proposing to update the beneficial uses and numeric criteria for specific waters in the UHRB for consistency with other similar types of waters throughout Nevada.

**Table 1. Waters in the Upper Humboldt River Basin and Trout/Non-Trout Designation**

<b>Water Body Name</b>	<b>Segment Description</b>	<b>Aquatic Species of Concern</b>	<b>Water Quality Standard NAC Reference</b>	<b>Former Class and Trout or Non-Trout designation</b>
Humboldt River, North Fork and tributaries at the national forest boundary	From their origin in the Independence Mountain Range to the national forest boundary.		445A.1456	A - Trout
Humboldt River, North Fork at Beaver Creek	From the national forest boundary to its confluence with Beaver Creek.	Trout	445A.1458	B - Trout
Humboldt River, North Fork at the Humboldt River	From its confluence with Beaver Creek to its confluence with the Humboldt River.		445A.1462	B - Non-Trout
Humboldt River, South Fork and tributaries at Lee	From their origin to Lee, except for the lengths of the river and tributaries within the exterior borders of the South Fork Indian Reservation.		445A.1464	A – Trout
Humboldt River, South Fork at the Humboldt River	From Lee to its confluence with the Humboldt River, except for the lengths of the river and tributaries within the exterior borders of the South Fork Indian Reservation.	Trout	445A.1466	B – Trout
Marys River, upper	From its origin to the point where the river crosses the east line of T. 42 N., R. 59 E., M.D.B. & M.		445A.1482	A – Trout
Marys River at the Humboldt River	From the east line of T. 42 N., R. 59 E., M.D.B. & M., to its confluence with the Humboldt River.	Trout	445A.1484	B – Trout
Tabor Creek	From its origin to the east line of T. 40 N., R. 60 E., M.D.B. & M.		445A.1486	A – Trout
Maggie Creek Tributaries	From their origin to the point where they become Maggie Creek or the point of their confluence with Maggie Creek.		445A.1488	A – Trout
Maggie Creek at Jack Creek	From where it is formed by the Maggie Creek tributaries to its confluence with Jack Creek.	Trout	445A.1492	B – Trout
Maggie Creek at Soap Creek	From its confluence with Jack Creek to its confluence with Soap Creek.	Trout	445A.1494	C – Trout
Maggie Creek at the Humboldt River	From its confluence with Soap Creek to its confluence with the Humboldt River.		445A.1496	C – Non-Trout
Secret Creek at the national forest boundary	From its origin to the national forest boundary.		445A.1498	A – Trout
Secret Creek at the Humboldt River	From the national forest boundary to its confluence with the Humboldt River.	Trout	445A.1502	B – Trout
Lamoille Creek at the gaging station	From its origin to gaging station number 10-316500, located in the NE 1/4 of section 6, T. 32 N., R. 58 E., M.D.B. & M.		445A.1504	A – Trout
Lamoille Creek at the Humboldt River	From gaging station number 10-316500, located in the NE 1/4 of section 6, T. 32 N., R. 58 E., M.D.B. & M., to its confluence with the Humboldt River.		445A.1506	B – Non-Trout
J.D. Ponds	The entire area.		445A.1508	C - Non-Trout
Denay Creek at Tonkin Reservoir	From its origin to Tonkin Reservoir.	Trout	445A.1512	A – Trout
Tonkin Reservoir	The entire reservoir.	Trout	445A.1514	A – Trout

Water Body Name	Segment Description	Aquatic Species of Concern	Water Quality Standard NAC Reference	Former Class and Trout or Non-Trout designation
Denay Creek below Tonkin Reservoir	Below Tonkin Reservoir.		445A.1516	B – Non-Trout
Huntington Creek at the White Pine-Elko county line	From its origin to the White Pine-Elko county line.		445A.1542	A – Trout
Huntington Creek at Smith Creek	From the White Pine-Elko county line to its confluence with Smith Creek.	Trout	445A.1544	B – Trout
Huntington Creek at the South Fork of the Humboldt River	From its confluence with Smith Creek to its confluence with the South Fork of the Humboldt River.		445A.1546	B – Non-Trout
Green Mountain Creek at <del>the national forest boundary</del> <i>Toyn Creek</i>	From its origin <del>to the national forest boundary</del> <i>to its confluence with Toyn Creek.</i>		445A.1548	A – Trout
Toyn Creek <i>at Green Mountain Creek</i>	From its origin to <del>the national forest boundary</del> <i>its confluence with Green Mountain Creek.</i>		445A.1554	A – Trout
<del>Green Mountain Creek</del> <i>Toyn Creek</i> at Corral Creek	From <del>the national forest boundary</del> <i>its confluence with Green Mountain Creek</i> to its confluence with Corral Creek.	Trout	445A.155 <del>2</del> 5	B – Trout
Starr Creek	From the confluence of Ackler and Herder Creeks to its confluence with the Humboldt River.	Trout	445A.1578	B – Trout

## Summary of Proposed Revisions

- ❖ Add Industrial Supply as a beneficial use to the waters that were formerly categorized as Class A.
- ❖ Correct naming error for Toyn and Green Mountain Creeks in the Ruby Mountains southeast of Jiggs as shown below.

445A.1548 - Green Mountain Creek at ~~the national forest boundary~~ *Toyn Creek*  
From its origin ~~to the national forest boundary~~ *to its confluence with Toyn Creek.*

445A.1554 Toyn Creek *at Green Mountain Creek*  
From its origin to ~~the national forest boundary~~ *its confluence with Green Mountain Creek*

445A.155~~2~~5 ~~Green Mountain Creek~~ *Toyn Creek* at Corral Creek From ~~the national forest boundary~~ *its confluence with Green Mountain Creek* to its confluence with Corral Creek

- ❖ Add numeric criteria for the following parameters:  
If Trout or Non-Trout waters are not designated standard would apply to both.
  - Nitrate criterion of “S.V. ≤ 10.0 mg/l”
  - Nitrite criterion of “S.V. ≤ 0.06 mg/l” for Trout Waters  
Nitrite criterion of “S.V. ≤ 1.0 mg/l” for Non-Trout Waters
  - Chloride criterion of “1-hour avg. ≤ 230 mg/l; 96-hour avg. ≤ 860 mg/l”

- Sulfate criterion of “S.V.  $\leq$  250 mg/l”
- Alkalinity criterion of “S.V.  $\geq$  20 mg/l”
- TSS criterion of “S.V.  $\leq$  25 mg/l” for Trout Waters  
TSS criterion of “S.V.  $\leq$  80 mg/l” for Non-Trout Waters
- Turbidity criterion of “S.V.  $\leq$  10 NTU” for Trout Waters
- Turbidity criterion of “S.V.  $\leq$  50 NTU” for Non-Trout Waters
- Color criterion of “S.V.  $\leq$  75 PCU”

## Proposed Revisions to Beneficial Uses and Reach Designations

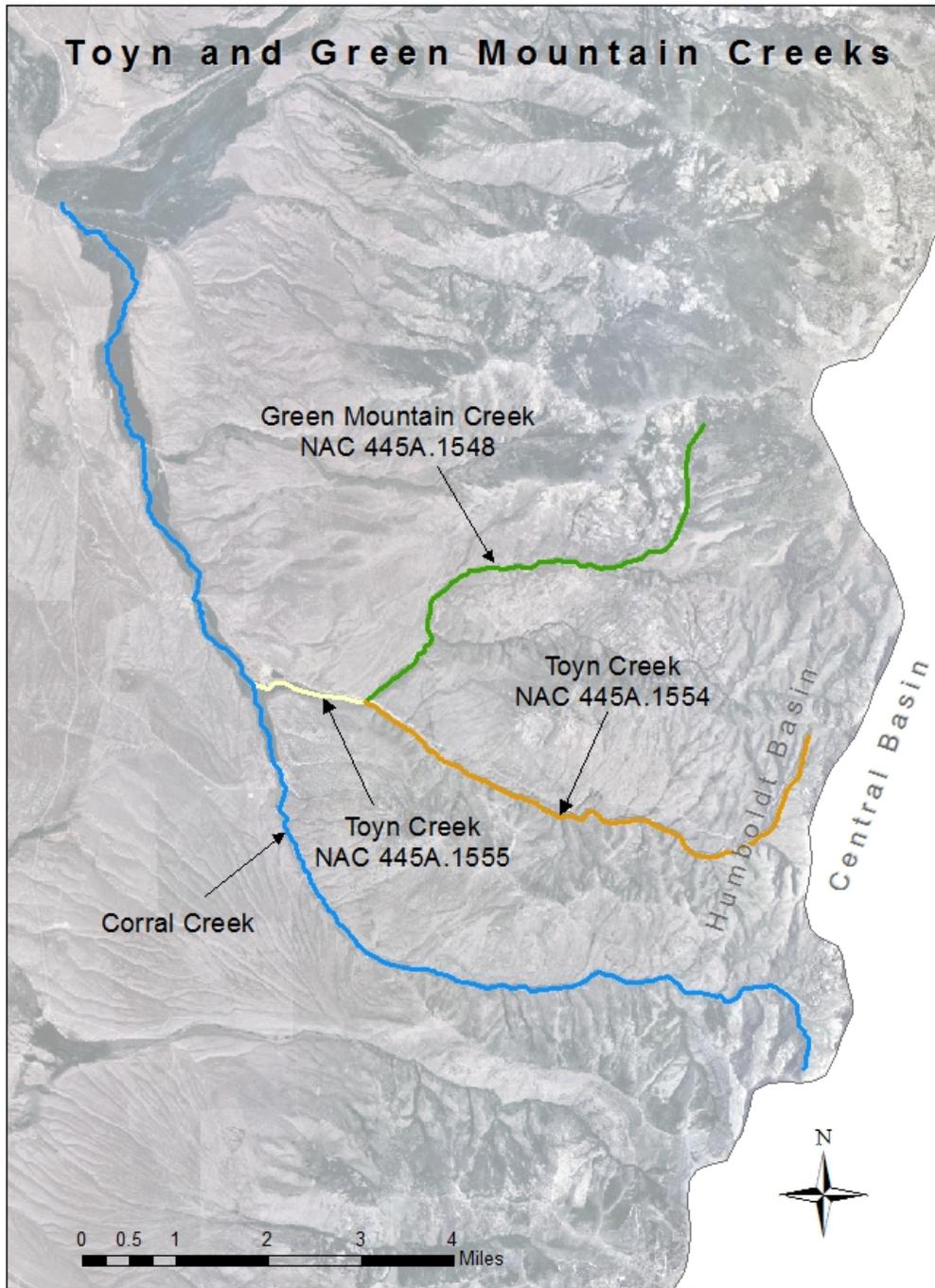
The beneficial uses retained for each waterbody from the Class system are shown in Table 2.

**Table 2. Class Waters Beneficial Uses**

Beneficial Uses	Class A	Class B	Class C
Municipal and Domestic Supply	X	X	X
Aquatic life	X	X	X
Propagation of wildlife	X	X	X
Irrigation	X	X	X
Watering of livestock	X	X	X
Recreation involving contact with the water	X	X	X
Recreation not involving contact with the water	X	X	X
Industrial Supply		X	X

The waterbodies that were formerly Class A do not have Industrial Supply assigned as a beneficial use. NDEP is proposing to add Industrial Supply as a beneficial use to these waters (indicated by the shaded rows in Table 1.)

NDEP is also correcting a naming error for Toyn and Green Mountain Creeks in the Ruby Mountains southeast of Jiggs. The lower reach of Toyn Creek was misnamed as Green Mountain Creek. NDEP is adjusting the descriptions of Toyn and Green Mountain Creeks to conform with the USGS topographic map (see Figure 3). The reach description strikeouts and insertions are also shown in Table 1.



**Figure 3 Corrections to Green Mountain and Toyn Creeks**

## Proposed Revisions to Numeric Criteria

The existing water quality standards for the UHRB waterbodies include the following parameters:

- Temperature<sup>1</sup>
- pH
- Dissolved Oxygen (D.O.)<sup>1</sup>
- Total Phosphorus (as P)
- Total Ammonia
- Total Dissolved Solids
- Escherichia coli
- Fecal Coliform

NDEP is proposing to add numeric criteria for the following parameters as recommended by the U.S. Environmental Protection Agency (EPA) for protection of the beneficial uses assigned to these waters:

- Nitrate
- Nitrite
- Chloride
- Sulfate
- Alkalinity as CaCO<sub>3</sub>
- Total Suspended Solids
- Turbidity
- Color

Detailed descriptions of the proposed numeric criteria and the applicable beneficial uses are provided below.

### Review of Beneficial Use Criteria

Water quality criteria are assigned as needed to protect the beneficial uses, including the most restrictive use. Generally, the criteria are derived from multiple sources such as EPA recommendations, literature reviews or site specific studies.

#### Nitrate:

Nitrate poses a potential risk of methemoglobinemia to bottle-fed infants. Based on EPA guidance (USEPA Quality Criteria for Water 1986 “Gold Book”), NDEP is proposing to establish a single value nitrate criterion of  $\leq 10$  mg/L as N to protect the municipal and domestic supply (M&D) beneficial use.

The proposed nitrate criterion is being met in all UHRB waters specified in this petition.

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<sup>1</sup>. Class A, B and C Trout waters have a single value temperature criterion of  $\leq 20^{\circ}\text{C}$ .  
Class B Non-Trout waters have a single value temperature criterion of  $\leq 24^{\circ}\text{C}$ .  
Class C Non-Trout waters have a single value temperature criterion of  $\leq 34^{\circ}\text{C}$ .  
Trout waters have a single value D.O. criterion of  $\geq 6.0$  mg/l.  
Non-Trout waters have a single value D.O. criterion of  $\geq 5.0$  mg/l.

### Nitrite:

Nitrite is potentially toxic to cold-water aquatic life. Based on Federal Water Pollution Control Administration, 1968 (“Green Book”) guidance, NDEP is proposing to establish a single value nitrite criterion of  $\leq 0.06$  mg/l for Trout waters to protect the aquatic life beneficial use.

Nitrite can be potentially toxic to infants younger than six months of age that drink water containing levels greater than 1.0 mg/l. Based on EPA Gold Book guidance, NDEP is proposing to establish a single value nitrite criterion of  $\leq 1.0$  mg/l for Non-Trout waters to protect the M&D beneficial use.

The proposed nitrite criteria are being met in all UHRB waters specified in this petition.

### Chloride:

Chloride is one of the anions that contributes to total dissolved solids (TDS) concentrations, but can also be toxic to aquatic life. Based on Green Book guidance, NDEP is proposing two chloride criteria for the protection of aquatic life: a one-hour average of  $\leq 860$  mg/l and a 96-hour average of  $\leq 230$  mg/l (the one-hour and 96-hour average concentration limits may be exceeded only once every 3 years).

The proposed chloride criteria are being met in all UHRB waters specified in this petition.

### Sulfate:

Sulfate is another of the anions that contributes to TDS concentrations. Elevated sulfate levels may have a laxative effect on drinking water users.

Based upon EPA Gold Book guidance, NDEP is proposing a single value sulfate criterion of  $\leq 250$  mg/l to protect the M&D beneficial use.

The proposed sulfate criterion is being met in all UHRB waters specified in this petition.

### Alkalinity:

Alkalinity, often referred to as hardness, is the sum total of components in the water that tend to elevate the pH above a value of about 4.5. Alkalinity is important for aquatic life because it buffers pH changes, including those that occur naturally as a result of algal photosynthetic activity. Also, the main components of alkalinity will bind with some toxic heavy metals and reduce their toxicity.

Based upon EPA Gold Book guidance, NDEP is proposing a single value alkalinity criterion of  $\geq 20$  mg/l as  $\text{CaCO}_3$  to protect the aquatic life beneficial use.

The proposed alkalinity criterion is being met in all UHRB waters specified in this petition except:

- NAC 445A.1456 Humboldt River, North Fork and tributaries at the national forest boundary

### Total Suspended Solids:

Total Suspended Solids (TSS) are organic and inorganic solid materials that are suspended in the water. Suspended solids affect aquatic life in a variety of ways. Excess TSS levels can clog fish gills, reduce growth rates, decrease resistance to disease, and prevent egg and larval development. Particles that settle out can smother fish eggs and those of aquatic insects, as well as suffocate newly-hatched larvae. In general, cold water fish are less tolerant of elevated TSS levels than are warm water fish.

Based on EPA guidance (Green Book) NDEP is proposing TSS single value criteria of  $\leq 25$  mg/l for Trout waters and  $\leq 80$  mg/l for Non-Trout waters to protect the aquatic life beneficial use.

The proposed TSS criteria are being met in all UHRB waters specified in this petition except:

- NAC 445A.1462 Humboldt River North Fork at the Humboldt River
- NAC 445A.1466 Humboldt River South Fork at the Humboldt River
- NAC 445A.1486 Tabor Creek
- NAC 445A.1542 Huntington Creek at the White Pine Elko county line

### Turbidity:

Turbidity is a measure of how particles suspended in water affect water clarity. Elevated turbidity can impact productivity thereby reducing food availability for aquatic life, and can impair the ability of fish to feed. In general, cold-water fish are less tolerant of turbid conditions than are warm water fish.

Based on Green Book guidance, NDEP is proposing single value turbidity criteria of  $\leq 10$  NTU (nephelometric turbidity units) for Trout waters and  $\leq 50$  NTU for Non-Trout waters to protect the aquatic life beneficial use.

The proposed turbidity criteria are being met in all UHRB waters specified in this petition except:

- NAC 445A.1484 Marys River at the Humboldt River
- NAC 445A.1486 Tabor Creek
- NAC 445A.1542 Huntington Creek at the White Pine Elko county line
- NAC 445A.1544 Huntington Creek at Smith Creek

### Color:

The most common cause of color in water is from the decomposition of naturally occurring organic matter. Color can affect the taste and aesthetic quality of drinking water.

Based on EPA guidance (USEPA 1972 “Blue Book”), NDEP is proposing a single value color criteria of  $\leq 75$  PCU (platinum-cobalt color units) to protect the M&D beneficial use.

The proposed color standard is being met in all UHRB waters specified in this petition.

## Proposed Revisions

The proposed updates to the NAC are shown below with **deletions in red and strikeout** and *additions in blue*:

**NAC 445A.1432 Humboldt Region: Designated beneficial uses. (NRS 445A.425, 445A.520)** The designated beneficial uses for select bodies of water within the Humboldt Region are prescribed in this section:

Water Body Name	Segment Description	Beneficial Uses											Aquatic Species of Concern	Water Quality Standard NAC Reference	
		Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh			
Humboldt River near Osino	From the upstream source of the main stem to Osino.	X	X	X	X	X	X	X	X	X				Warm-water fishery	445A.1436
Humboldt River at Palisade	From Osino to the Palisade Gage.	X	X	X	X	X	X	X	X	X				Warm-water fishery	445A.1438
Humboldt River at Battle Mountain	From the Palisade Gage to the Battle Mountain Gage.	X	X	X	X	X	X	X	X	X				Warm-water fishery	445A.1442
Humboldt River at State Highway 789	From the Battle Mountain Gage to where State Highway 789 crosses the Humboldt River.	X	X	X	X	X	X	X	X	X				Warm-water fishery	445A.1444
Humboldt River at Imlay	From the Comus Gage to Imlay.	X	X	X	X	X	X	X	X	X				Warm-water fishery	445A.1446
Humboldt River at Woolsey	From Imlay to Woolsey.	X	X	X	X	X	X	X	X	X				Warm-water fishery	445A.1448
Humboldt River at Rodgers Dam	From Woolsey to Rodgers Dam.	X	X	X	X	X	X	X	X	X					445A.1452
Humboldt River at the Humboldt Sink	From Rodgers Dam to the Humboldt Sink.	X	X	X	X	X		X	X						445A.1454
The Humboldt Sink	The entire sink.	X	X	X		X		X	X						445A.1455
Humboldt River, North Fork and tributaries at the national forest boundary	From their origin in the Independence Mountain Range to the national forest boundary.	X	X	X	X	X	X	X	X	X					445A.1456
Humboldt River, North Fork at Beaver Creek	From the national forest boundary to its confluence with Beaver Creek.	X	X	X	X	X	X	X	X	X				Trout	445A.1458
Humboldt River, North Fork at the Humboldt River	From its confluence with Beaver Creek to its confluence with the Humboldt River.	X	X	X	X	X	X	X	X	X					445A.1462

Water Body Name	Segment Description	Beneficial Uses											Aquatic Species of Concern	Water Quality Standard NAC Reference			
		Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh					
Humboldt River, South Fork and tributaries at Lee	From their origin to Lee, except for the lengths of the river and tributaries within the exterior borders of the South Fork Indian Reservation.	X	X	X	X	X	X	X	X								445A.1464
Humboldt River, South Fork at the Humboldt River	From Lee to its confluence with the Humboldt River, except for the lengths of the river and tributaries within the exterior borders of the South Fork Indian Reservation.	X	X	X	X	X	X	X	X						Trout		445A.1466
Little Humboldt River	The entire length.	X	X	X	X	X	X	X	X								445A.1468
Little Humboldt River, North Fork at the national forest boundary	From its origin to the national forest boundary.	X	X	X	X	X	X	X	X								445A.1472
Little Humboldt River, North Fork at the South Fork of the Little Humboldt River	From the national forest boundary to its confluence with the South Fork of the Little Humboldt River.	X	X	X	X	X	X	X	X								445A.1474
Little Humboldt River, South Fork at the Elko-Humboldt county line	From its origin to the Elko-Humboldt county line.	X	X	X	X	X	X	X	X								445A.1476
Little Humboldt River, South Fork at the North Fork of the Little Humboldt River	From the Elko-Humboldt county line to its confluence with the North Fork of the Little Humboldt River.	X	X	X	X	X	X	X	X								445A.1478
Marys River, upper	From its origin to the point where the river crosses the east line of T. 42 N., R. 59 E., M.D.B. & M.	X	X	X	X	X	X	X	X								445A.1482
Marys River at the Humboldt River	From the east line of T. 42 N., R. 59 E., M.D.B. & M., to its confluence with the Humboldt River.	X	X	X	X	X	X	X	X					Trout			445A.1484
Tabor Creek	From its origin to the east line of T. 40 N., R. 60 E., M.D.B. & M.	X	X	X	X	X	X	X	X								445A.1486

Water Body Name	Segment Description	Beneficial Uses											Aquatic Species of Concern	Water Quality Standard NAC Reference			
		Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh					
Maggie Creek Tributaries	From their origin to the point where they become Maggie Creek or the point of their confluence with Maggie Creek.	X	X	X	X	X	X	X	X	X							445A.1488
Maggie Creek at Jack Creek	From where it is formed by the Maggie Creek tributaries to its confluence with Jack Creek.	X	X	X	X	X	X	X	X	X					Trout		445A.1492
Maggie Creek at Soap Creek	From its confluence with Jack Creek to its confluence with Soap Creek.	X	X	X	X	X	X	X	X	X					Trout		445A.1494
Maggie Creek at the Humboldt River	From its confluence with Soap Creek to its confluence with the Humboldt River.	X	X	X	X	X	X	X	X	X							445A.1496
Secret Creek at the national forest boundary	From its origin to the national forest boundary.	X	X	X	X	X	X	X	X	X							445A.1498
Secret Creek at the Humboldt River	From the national forest boundary to its confluence with the Humboldt River.	X	X	X	X	X	X	X	X	X					Trout		445A.1502
Lamoille Creek at the gaging station	From its origin to gaging station number 10-316500, located in the NE 1/4 of section 6, T. 32 N., R. 58 E., M.D.B. & M.	X	X	X	X	X	X	X	X	X							445A.1504
Lamoille Creek at the Humboldt River	From gaging station number 10-316500, located in the NE 1/4 of section 6, T. 32 N., R. 58 E., M.D.B. & M., to its confluence with the Humboldt River.	X	X	X	X	X	X	X	X	X							445A.1506
J.D. Ponds	The entire area.	X	X	X	X	X	X	X	X	X							445A.1508
Denay Creek at Tonkin Reservoir	From its origin to Tonkin Reservoir.	X	X	X	X	X	X	X	X	X							445A.1512
Tonkin Reservoir	The entire reservoir.	X	X	X	X	X	X	X	X	X							445A.1514
Denay Creek below Tonkin Reservoir	Below Tonkin Reservoir.	X	X	X	X	X	X	X	X	X							445A.1516
Rock Creek at Squaw Valley Ranch	From its origin to Squaw Valley Ranch.	X	X	X	X	X	X	X	X	X							445A.1518
Willow Creek at Willow Creek Reservoir	From its origin to Willow Creek Reservoir.	X	X	X	X	X	X	X	X	X							445A.1524
Willow Creek Reservoir	The entire reservoir.	X	X	X	X	X	X	X	X	X					Trout		445A.1526

Water Body Name	Segment Description	Beneficial Uses											Aquatic Species of Concern	Water Quality Standard NAC Reference		
		Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh				
Pole Creek	From its origin to the point of diversion of the Golconda water supply, near the north line of section 13, T. 35 N., R. 39 E., M.D.B. & M.	X	X	X	X	X	X		X							445A.1528
Water Canyon Creek	From its origin to the point of diversion of the Winnemucca municipal water supply, near the west line of section 12, T. 35 N., R. 38 E., M.D.B. & M.	X	X	X	X	X	X		X							445A.1532
Martin Creek at the national forest boundary	From its origin to the national forest boundary.	X	X	X	X	X	X		X							445A.1534
Martin Creek below the national forest boundary	From the national forest boundary to the first diversion in T. 42 N., R. 40 E., M.D.B. & M.	X	X	X	X	X	X	X	X					Trout		445A.1536
Dutch John Creek	The entire length	X	X	X	X	X	X		X							445A.1538
Huntington Creek at the White Pine-Elko county line	From its origin to the White Pine-Elko county line.	X	X	X	X	X	X	X	X							445A.1542
Huntington Creek at Smith Creek	From the White Pine-Elko county line to its confluence with Smith Creek.	X	X	X	X	X	X	X	X					Trout		445A.1544
Huntington Creek at the South Fork of the Humboldt River	From its confluence with Smith Creek to its confluence with the South Fork of the Humboldt River.	X	X	X	X	X	X	X	X							445A.1546
Green Mountain Creek at <del>the national forest boundary</del> <i>Toyn Creek</i>	From its origin <del>to the national forest boundary</del> <i>to its confluence with Toyn Creek.</i>	X	X	X	X	X	X	X	X							445A.1548
Toyn Creek <i>at Green Mountain Creek</i>	From its origin to <del>the national forest boundary</del> <i>its confluence with Green Mountain Creek.</i>	X	X	X	X	X	X	X	X							445A.1554
<del>Green Mountain Creek</del> <i>Toyn Creek</i> at Corral Creek	From <del>the national forest boundary</del> <i>its confluence with Green Mountain Creek</i> to its confluence with Corral Creek.	X	X	X	X	X	X	X	X					Trout		445A.1552 <del>5</del>
Reese River at Indian Creek	From its origin to its confluence with Indian Creek, except for the length of the river within the exterior borders of the Yomba Indian Reservation.	X	X	X	X	X	X		X							445A.1556

Water Body Name	Segment Description	Beneficial Uses											Aquatic Species of Concern	Water Quality Standard NAC Reference		
		Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh				
Reese River at State Route 722.	From its confluence with Indian Creek to State Route 722 (old U.S. Highway 50).	X	X	X	X	X	X	X	X	X					Trout	445A.1558
Reese River below State Route 722.	North of State Route 722 (old U.S. Highway 50).	X	X	X	X	X	X	X	X	X						445A.1562
San Juan Creek	From its origin to the national forest boundary.	X	X	X	X	X	X		X						445A.1564	
Big Creek at the forest service campground	From its origin to the east boundary of the United States Forest Service's Big Creek Campground.	X	X	X	X	X	X		X						445A.1566	
Big Creek below the forest service campground	From the east boundary of the United States Forest Service's Big Creek Campground to the first diversion dam, near the west line of section 4, T. 17 N., R. 43 E., M.D.B. & M.	X	X	X	X	X	X	X	X					Trout	445A.1568	
Mill Creek	From its origin to the first point of diversion, near the south line of section 22, T. 29 N., R. 44 E., M.D.B. & M.	X	X	X	X	X	X		X						445A.1572	
Lewis Creek	From its origin to the first point of diversion, near the center of section 23, T. 30 N., R. 45 E., M.D.B. & M.	X	X	X	X	X	X		X						445A.1574	
Iowa Canyon Reservoir	The entire reservoir.	X	X	X	X	X	X	X	X					Trout	445A.1576	
Starr Creek	From the confluence of Ackler and Herder Creeks to its confluence with the Humboldt River.	X	X	X	X	X	X	X	X					Trout	445A.1578	
Irrigation	Irrigation															
Livestock	Watering of livestock															
Contact	Recreation involving contact with the water															
Noncontact	Recreation not involving contact with the water															
Municipal	Municipal or domestic supply, or both															
Wildlife	Propagation of Wildlife															
Aquatic	Propagation of aquatic life															
Aesthetic	Water of extraordinary ecological or aesthetic value															
Enhance	Enhancement of water quality															
Marsh	Maintenance of a freshwater marsh															

**NAC 445A.1434 Humboldt Region: Standards for select bodies of water. (NRS 445A.425, 445A.520)** The standards for water quality for select bodies of water within the Humboldt Region are prescribed in NAC 445A.1434 to 445A.1578, inclusive.

**NAC 445A.1456 Humboldt Region: Humboldt River, North Fork and tributaries at the national forest boundary. (NRS 445A.425, 445A.520)** The limits of this table apply to the bodies of water known as the North Fork of the Humboldt River and its tributaries in the Independence Mountain Range from their origin to the national forest boundary. This segment of the North Fork of the Humboldt River and tributaries is located in Elko County.

**STANDARDS OF WATER QUALITY**  
**Humboldt River, North Fork and tributaries at the national forest boundary**

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>														
			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																	
Temperature - °C $\Delta T^b$ - °C		S.V. $\leq 20$ $\Delta T = 0$			*	X											
pH - SU		S.V. 6.5 - 9.0	X	X	*	*			X	X	*						
Dissolved Oxygen - mg/l		S.V. $\geq 6.0$	X		*	X	X	X			X						
Total Phosphorus (as P) - mg/l		S.V. $\leq 0.10$			*	*	X	X									
<i>Nitrate (as N) - mg/l</i>		<i>S.V. <math>\leq 10</math></i>	X		X			*			X						
<i>Nitrite (as N) - mg/l</i>		<i>S.V. <math>\leq 0.06</math></i>	X		*			X			X						
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X									
<i>Total Suspended Solids - mg/l</i>		<i>S.V. <math>\leq 25</math></i>			*												
<i>Turbidity - NTU</i>		<i>S.V. <math>\leq 10</math></i>			*												
<i>Color - PCU</i>		<i>S.V. <math>\leq 75</math></i>						*									
Total Dissolved Solids - mg/l		S.V. $\leq 500$ or the 95th percentile (whichever is less).	X	X				*									
<i>Chloride - mg/l</i>		<i>1-hr Avg. <math>\leq 860^d</math></i> <i>96-hr Avg. <math>\leq 230</math></i>	X		*				X		X						
<i>Sulfate - mg/l</i>		<i>S.V. <math>\leq 250</math></i>						*									
<i>Alkalinity (as CaCO<sub>3</sub>) - mg/l</i>		<i>S.V. <math>\geq 20</math></i>			*						X						
E. coli - No./100 ml		A.G.M. $\leq 126$ S.V. $\leq 410$				*	X										
Fecal Coliform - No./100 ml		S.V. $\leq 1000$	X	*				X	X		X						

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

**NAC 445A.1458 Humboldt Region: Humboldt River, North Fork at Beaver Creek. (NRS 445A.425, 445A.520)** The limits of this table apply to the bodies of water known as the North Fork of the Humboldt River from the national forest boundary to its confluence with Beaver Creek. This segment of the North Fork of the Humboldt River is located in Elko County.

**STANDARDS OF WATER QUALITY**  
Humboldt River, North Fork at Beaver Creek

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>													
			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			Trout													
Temperature - °C $\Delta T^b$ - °C		S.V. $\leq 20$ $\Delta T = 0$			*	X										
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X	*						
Dissolved Oxygen - mg/l		S.V. $\geq 6.0$	X		*	X	X	X		X						
Total Phosphorus (as P) - mg/l		S.V. $\leq 0.10$			*	*	X	X								
<i>Nitrate (as N) - mg/l</i>		<i>S.V. <math>\leq 10</math></i>	<i>X</i>		<i>X</i>			<i>*</i>		<i>X</i>						
<i>Nitrite (as N) - mg/l</i>		<i>S.V. <math>\leq 0.06</math></i>	<i>X</i>		<i>*</i>			<i>X</i>		<i>X</i>						
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X								
<i>Total Suspended Solids - mg/l</i>		<i>S.V. <math>\leq 25</math></i>			<i>*</i>											
<i>Turbidity - NTU</i>		<i>S.V. <math>\leq 10</math></i>			<i>*</i>											
<i>Color - PCU</i>		<i>S.V. <math>\leq 75</math></i>						<i>*</i>								
Total Dissolved Solids - mg/l		S.V. $\leq 500$ or the 95th percentile (whichever is less).	X	X				<i>*</i>								
<i>Chloride - mg/l</i>		<i>1-hr Avg. <math>\leq 860^d</math></i> <i>96-hr Avg. <math>\leq 230</math></i>	<i>X</i>		<i>*</i>			<i>X</i>		<i>X</i>						
<i>Sulfate - mg/l</i>		<i>S.V. <math>\leq 250</math></i>						<i>*</i>								
<i>Alkalinity (as CaCO3) - mg/l</i>		<i>S.V. <math>\geq 20</math></i>			<i>*</i>					<i>X</i>						
E. coli - No./100 ml		A.G.M. $\leq 126$ S.V. $\leq 410$					*	X								
Fecal Coliform - No./100 ml		S.V. $\leq 1000$	X	*				X	X		X					

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

**NAC 445A.1462 Humboldt Region: Humboldt River, North Fork at the Humboldt River. (NRS 445A.425, 445A.520)** The limits of this table apply to the bodies of water known as the North Fork of the Humboldt River from its confluence with Beaver Creek to its confluence with the Humboldt River. This segment of the North Fork of the Humboldt River is located in Elko County.

**STANDARDS OF WATER QUALITY**  
**Humboldt River, North Fork at the Humboldt River**

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>													
			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																
Temperature - °C $\Delta T^b$ - °C		S.V. $\leq 24$ $\Delta T = 0$			*	X										
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X	*						
Dissolved Oxygen - mg/l		S.V. $\geq 5.0$	X		*	X	X	X		X						
Total Phosphorus (as P) - mg/l		S.V. $\leq 0.10$			*	*	X	X								
<i>Nitrate (as N) - mg/l</i>		<i>S.V. <math>\leq 10</math></i>	<i>X</i>		<i>X</i>			*		<i>X</i>						
<i>Nitrite (as N) - mg/l</i>		<i>S.V. <math>\leq 1.0</math></i>	<i>X</i>		<i>*</i>			<i>X</i>		<i>X</i>						
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X								
<i>Total Suspended Solids - mg/l</i>		<i>S.V. <math>\leq 80</math></i>			<i>*</i>											
<i>Turbidity - NTU</i>		<i>S.V. <math>\leq 50</math></i>			<i>*</i>											
<i>Color - PCU</i>		<i>S.V. <math>\leq 75</math></i>						*								
Total Dissolved Solids - mg/l		S.V. $\leq 500$ or the 95th percentile (whichever is less).	X	X				*								
<i>Chloride - mg/l</i>		<i>1-hr Avg. <math>\leq 860^d</math></i> <i>96-hr Avg. <math>\leq 230</math></i>	<i>X</i>		<i>*</i>			<i>X</i>		<i>X</i>						
<i>Sulfate - mg/l</i>		<i>S.V. <math>\leq 250</math></i>						*								
<i>Alkalinity (as CaCO<sub>3</sub>) - mg/l</i>		<i>S.V. <math>\geq 20</math></i>			<i>*</i>						<i>X</i>					
E. coli - No./100 ml		A.G.M. $\leq 126$ S.V. $\leq 410$					*	X								
Fecal Coliform - No./100 ml		S.V. $\leq 1000$	X	*				X	X		X					

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

**NAC 445A.1464 Humboldt Region: Humboldt River, South Fork and tributaries at Lee (NRS 445A.425, 445A.520)** The limits of this table apply to the bodies of water known as the South Fork of the Humboldt River and its tributaries from their origin to Lee, except for the lengths of the river and tributaries within the exterior borders of the South Fork Indian Reservation. This segment of the South Fork of the Humboldt River and tributaries is located in Elko County.

**STANDARDS OF WATER QUALITY**  
**Humboldt River, South Fork and tributaries at Lee**

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>													
			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																
Temperature - °C $\Delta T^b$ - °C		S.V. $\leq 20$ $\Delta T = 0$			*	X										
pH - SU		S.V. 6.5 - 9.0	X	X	*	*			X	X	*					
Dissolved Oxygen - mg/l		S.V. $\geq 6.0$	X		*	X	X	X			X					
Total Phosphorus (as P) - mg/l		S.V. $\leq 0.10$			*	*	X	X								
<i>Nitrate (as N) - mg/l</i>		<i>S.V. <math>\leq 10</math></i>	<i>X</i>		<i>X</i>				*		<i>X</i>					
<i>Nitrite (as N) - mg/l</i>		<i>S.V. <math>\leq 0.06</math></i>	<i>X</i>		<i>*</i>				<i>X</i>		<i>X</i>					
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X								
<i>Total Suspended Solids - mg/l</i>		<i>S.V. <math>\leq 25</math></i>			*											
<i>Turbidity - NTU</i>		<i>S.V. <math>\leq 10</math></i>			*											
<i>Color - PCU</i>		<i>S.V. <math>\leq 75</math></i>							*							
Total Dissolved Solids - mg/l		S.V. $\leq 500$ or the 95th percentile (whichever is less).	X	X					*							
<i>Chloride - mg/l</i>		<i>1-hr Avg. <math>\leq 860^d</math></i> <i>96-hr Avg. <math>\leq 230</math></i>	<i>X</i>		<i>*</i>				<i>X</i>		<i>X</i>					
<i>Sulfate - mg/l</i>		<i>S.V. <math>\leq 250</math></i>							*							
<i>Alkalinity (as CaCO<sub>3</sub>) - mg/l</i>		<i>S.V. <math>\geq 20</math></i>			*						<i>X</i>					
E. coli - No./100 ml		A.G.M. $\leq 126$ S.V. $\leq 410$				*	X									
Fecal Coliform - No./100 ml		S.V. $\leq 1000$	X	*				X	X		X					

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

**NAC 445A.1466 Humboldt Region: Humboldt River, South Fork at the Humboldt River. (NRS 445A.425, 445A.520)** The limits of this table apply to the body of water known as the South Fork of the Humboldt River from Lee to its confluence with the Humboldt River. This segment of the South Fork of the Humboldt River is located in Elko County.

**STANDARDS OF WATER QUALITY**  
**Humboldt River, South Fork at the Humboldt River**

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>												
			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			Trout												
Temperature - °C $\Delta T^b$ - °C		S.V. $\leq 20$ $\Delta T = 0$			*	X									
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X	*					
Dissolved Oxygen - mg/l		S.V. $\geq 6.0$	X		*	X	X	X		X					
Total Phosphorus (as P) - mg/l		S.V. $\leq 0.10$			*	*	X	X							
<i>Nitrate (as N) - mg/l</i>		<i>S.V. <math>\leq 10</math></i>	<i>X</i>		<i>X</i>			*		<i>X</i>					
<i>Nitrite (as N) - mg/l</i>		<i>S.V. <math>\leq 0.06</math></i>	<i>X</i>		*			<i>X</i>		<i>X</i>					
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X							
<i>Total Suspended Solids - mg/l</i>		<i>S.V. <math>\leq 25</math></i>			*										
<i>Turbidity - NTU</i>		<i>S.V. <math>\leq 10</math></i>			*										
<i>Color - PCU</i>		<i>S.V. <math>\leq 75</math></i>						*							
Total Dissolved Solids - mg/l		S.V. $\leq 500$ or the 95th percentile (whichever is less).	X	X				*							
<i>Chloride - mg/l</i>		<i>1-hr Avg. <math>\leq 860^d</math></i> <i>96-hr Avg. <math>\leq 230</math></i>	<i>X</i>		*			<i>X</i>		<i>X</i>					
<i>Sulfate - mg/l</i>		<i>S.V. <math>\leq 250</math></i>						*							
<i>Alkalinity (as CaCO<sub>3</sub>) - mg/l</i>		<i>S.V. <math>\geq 20</math></i>			*					<i>X</i>					
E. coli - No./100 ml		A.G.M. $\leq 126$ S.V. $\leq 410$				*	X								
Fecal Coliform - No./100 ml		S.V. $\leq 1000$	X	*			X	X		X					

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

**NAC 445A.1482 Humboldt Region: Marys River, upper. (NRS 445A.425, 445A.520)** The limits of this table apply to the body of water known Marys River from its origin to the point where the River crosses the east line of T. 42 N, R. 59 E., M.D.B. & M. This segment of Marys River is located in Elko County.

**STANDARDS OF WATER QUALITY**  
Marys River, upper

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>													
			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																
Temperature - °C $\Delta T^b$ - °C		S.V. $\leq 20$ $\Delta T = 0$			*	X										
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X		X	*				
Dissolved Oxygen - mg/l		S.V. $\geq 6.0$	X		*	X	X	X			X					
Total Phosphorus (as P) - mg/l		S.V. $\leq 0.10$			*	*	X	X								
<i>Nitrate (as N) - mg/l</i>		<i>S.V. <math>\leq 10</math></i>	X		X			*			X					
<i>Nitrite (as N) - mg/l</i>		<i>S.V. <math>\leq 0.06</math></i>	X		*			X			X					
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X								
<i>Total Suspended Solids - mg/l</i>		<i>S.V. <math>\leq 25</math></i>			*											
<i>Turbidity - NTU</i>		<i>S.V. <math>\leq 10</math></i>			*											
<i>Color - PCU</i>		<i>S.V. <math>\leq 75</math></i>						*								
Total Dissolved Solids - mg/l		S.V. $\leq 500$ or the 95th percentile (whichever is less).	X	X				*								
<i>Chloride - mg/l</i>		<i>1-hr Avg. <math>\leq 860^d</math></i> <i>96-hr Avg. <math>\leq 230</math></i>	X		*			X			X					
<i>Sulfate - mg/l</i>		<i>S.V. <math>\leq 250</math></i>						*								
<i>Alkalinity (as CaCO<sub>3</sub>) - mg/l</i>		<i>S.V. <math>\geq 20</math></i>			*						X					
E. coli - No./100 ml		A.G.M. $\leq 126$ S.V. $\leq 410$				*	X									
Fecal Coliform - No./100 ml		S.V. $\leq 1000$	X	*			X	X			X					

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

**NAC 445A.1482 Humboldt Region: Marys River at the Humboldt River. (NRS 445A.425, 445A.520)** The limits of this table apply to the body of water known Marys River from the east line of T. 42 N, R. 59 E., M.D.B. & M to its confluence with the Humboldt River. This segment of Marys River is located in Elko County.

**STANDARDS OF WATER QUALITY  
Marys River at the Humboldt River**

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>													
			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			Trout													
Temperature - °C $\Delta T^b$ - °C		S.V. $\leq 20$ $\Delta T = 0$			*	X										
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X	*						
Dissolved Oxygen - mg/l		S.V. $\geq 6.0$	X		*	X	X	X		X						
Total Phosphorus (as P) - mg/l		S.V. $\leq 0.10$			*	*	X	X								
<i>Nitrate (as N) - mg/l</i>		<i>S.V. <math>\leq 10</math></i>	<i>X</i>		<i>X</i>			*		<i>X</i>						
<i>Nitrite (as N) - mg/l</i>		<i>S.V. <math>\leq 0.06</math></i>	<i>X</i>		<i>*</i>			<i>X</i>		<i>X</i>						
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X								
<i>Total Suspended Solids - mg/l</i>		<i>S.V. <math>\leq 25</math></i>			<i>*</i>											
<i>Turbidity - NTU</i>		<i>S.V. <math>\leq 10</math></i>			<i>*</i>											
<i>Color - PCU</i>		<i>S.V. <math>\leq 75</math></i>						*								
Total Dissolved Solids - mg/l		S.V. $\leq 500$ or the 95th percentile (whichever is less).	X	X				*								
<i>Chloride - mg/l</i>		<i>1-hr Avg. <math>\leq 860^d</math></i> <i>96-hr Avg. <math>\leq 230</math></i>	<i>X</i>		<i>*</i>			<i>X</i>		<i>X</i>						
<i>Sulfate - mg/l</i>		<i>S.V. <math>\leq 250</math></i>						*								
<i>Alkalinity (as CaCO3) - mg/l</i>		<i>S.V. <math>\geq 20</math></i>			<i>*</i>					<i>X</i>						
E. coli - No./100 ml		A.G.M. $\leq 126$ S.V. $\leq 410$					*	X								
Fecal Coliform - No./100 ml		S.V. $\leq 1000$	X	*				X	X		X					

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

**NAC 445A.1486 Humboldt Region: Tabor Creek. (NRS 445A.425, 445A.520)** The limits of this table apply to the body of water known Tabor Creek from its origin to the east line of T. 40 N, R. 60 E., M.D.B. & M. Tabor Creek is located in Elko County.

**STANDARDS OF WATER QUALITY**  
**Tabor Creek**

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>													
			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																
Temperature - °C $\Delta T^b$ - °C		S.V. $\leq 20$ $\Delta T = 0$			*	X										
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X	*						
Dissolved Oxygen - mg/l		S.V. $\geq 6.0$	X		*	X	X	X		X						
Total Phosphorus (as P) - mg/l		S.V. $\leq 0.10$			*	*	X	X								
<i>Nitrate (as N) - mg/l</i>		<i>S.V. <math>\leq 10</math></i>	X		X			*		X						
<i>Nitrite (as N) - mg/l</i>		<i>S.V. <math>\leq 0.06</math></i>	X		*			X		X						
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X								
<i>Total Suspended Solids - mg/l</i>		<i>S.V. <math>\leq 25</math></i>			*											
<i>Turbidity - NTU</i>		<i>S.V. <math>\leq 10</math></i>			*											
<i>Color - PCU</i>		<i>S.V. <math>\leq 75</math></i>						*								
Total Dissolved Solids - mg/l		S.V. $\leq 500$ or the 95th percentile (whichever is less).	X	X				*								
<i>Chloride - mg/l</i>		<i>1-hr Avg. <math>\leq 860^d</math></i> <i>96-hr Avg. <math>\leq 230</math></i>	X		*			X		X						
<i>Sulfate - mg/l</i>		<i>S.V. <math>\leq 250</math></i>						*								
<i>Alkalinity (as CaCO<sub>3</sub>) - mg/l</i>		<i>S.V. <math>\geq 20</math></i>			*					X						
E. coli - No./100 ml		A.G.M. $\leq 126$ S.V. $\leq 410$				*	X									
Fecal Coliform - No./100 ml		S.V. $\leq 1000$	X	*			X	X		X						

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

**NAC 445A.1488 Humboldt Region: Maggie Creek Tributaries. (NRS 445A.425, 445A.520)** The limits of this table apply to the bodies of water known as the Maggie Creek Tributaries from their origin to the point where they become Maggie Creek or the point of their confluence with Maggie Creek. The Maggie Creek Tributaries are located in Elko County.

**STANDARDS OF WATER QUALITY  
Maggie Creek Tributaries**

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>													
			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																
Temperature - °C $\Delta T^b$ - °C		S.V. $\leq 20$ $\Delta T = 0$			*	X										
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X		*					
Dissolved Oxygen - mg/l		S.V. $\geq 6.0$	X		*	X	X	X			X					
Total Phosphorus (as P) - mg/l		S.V. $\leq 0.10$			*	*	X	X								
<i>Nitrate (as N) - mg/l</i>		<i>S.V. <math>\leq 10</math></i>	X		X			*			X					
<i>Nitrite (as N) - mg/l</i>		<i>S.V. <math>\leq 0.06</math></i>	X		*			X			X					
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X								
<i>Total Suspended Solids - mg/l</i>		<i>S.V. <math>\leq 25</math></i>			*											
<i>Turbidity - NTU</i>		<i>S.V. <math>\leq 10</math></i>			*											
<i>Color - PCU</i>		<i>S.V. <math>\leq 75</math></i>						*								
Total Dissolved Solids - mg/l		S.V. $\leq 500$ or the 95th percentile (whichever is less).	X	X				*								
<i>Chloride - mg/l</i>		<i>1-hr Avg. <math>\leq 860^d</math></i> <i>96-hr Avg. <math>\leq 230</math></i>	X		*			X			X					
<i>Sulfate - mg/l</i>		<i>S.V. <math>\leq 250</math></i>						*								
<i>Alkalinity (as CaCO<sub>3</sub>) - mg/l</i>		<i>S.V. <math>\geq 20</math></i>			*						X					
E. coli - No./100 ml		A.G.M. $\leq 126$ S.V. $\leq 410$				*	X									
Fecal Coliform - No./100 ml		S.V. $\leq 1000$	X	*			X	X			X					

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

**NAC 445A.1492 Humboldt Region: Maggie Creek at Jack Creek. (NRS 445A.425, 445A.520)** The limits of this table apply to the body of water known as the Maggie Creek from where it is formed by the Maggie Creek Tributaries to its confluence with Jack Creek. This segment of Maggie Creek is located in Elko County.

**STANDARDS OF WATER QUALITY  
Maggie Creek at Jack Creek**

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>													
			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			Trout													
Temperature - °C $\Delta T^b$ - °C		S.V. $\leq 20$ $\Delta T = 0$			*	X										
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X	*						
Dissolved Oxygen - mg/l		S.V. $\geq 6.0$	X		*	X	X	X		X						
Total Phosphorus (as P) - mg/l		S.V. $\leq 0.10$			*	*	X	X								
<i>Nitrate (as N) - mg/l</i>		<i>S.V. <math>\leq 10</math></i>	<i>X</i>		<i>X</i>			<i>*</i>		<i>X</i>						
<i>Nitrite (as N) - mg/l</i>		<i>S.V. <math>\leq 0.06</math></i>	<i>X</i>		<i>*</i>			<i>X</i>		<i>X</i>						
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X								
<i>Total Suspended Solids - mg/l</i>		<i>S.V. <math>\leq 25</math></i>			<i>*</i>											
<i>Turbidity - NTU</i>		<i>S.V. <math>\leq 10</math></i>			<i>*</i>											
<i>Color - PCU</i>		<i>S.V. <math>\leq 75</math></i>						<i>*</i>								
Total Dissolved Solids - mg/l		S.V. $\leq 500$ or the 95th percentile (whichever is less).	X	X				<i>*</i>								
<i>Chloride - mg/l</i>		<i>1-hr Avg. <math>\leq 860^d</math></i> <i>96-hr Avg. <math>\leq 230</math></i>	<i>X</i>		<i>*</i>			<i>X</i>		<i>X</i>						
<i>Sulfate - mg/l</i>		<i>S.V. <math>\leq 250</math></i>						<i>*</i>								
<i>Alkalinity (as CaCO3) - mg/l</i>		<i>S.V. <math>\geq 20</math></i>			<i>*</i>					<i>X</i>						
E. coli - No./100 ml		A.G.M. $\leq 126$ S.V. $\leq 410$					*	X								
Fecal Coliform - No./100 ml		S.V. $\leq 1000$	X	*				X	X		X					

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

**NAC 445A.1494 Humboldt Region: Maggie Creek at Soap Creek. (NRS 445A.425, 445A.520)** The limits of this table apply to the body of water known as the Maggie Creek from its confluence with Jack Creek to its confluence with Soap Creek. This segment of Maggie Creek is located in Elko County.

**STANDARDS OF WATER QUALITY  
Maggie Creek at Soap Creek**

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>													
			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			Trout													
Temperature - °C $\Delta T^b$ - °C		S.V. $\leq 20$ $\Delta T = 0$			*	X										
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X	*						
Dissolved Oxygen - mg/l		S.V. $\geq 6.0$	X		*	X	X	X		X						
Total Phosphorus (as P) - mg/l		S.V. $\leq 0.33$			*	*	X	X								
<i>Nitrate (as N) – mg/l</i>		<i>S.V. <math>\leq 10</math></i>	<i>X</i>		<i>X</i>			<i>*</i>		<i>X</i>						
<i>Nitrite (as N) – mg/l</i>		<i>S.V. <math>\leq 0.06</math></i>	<i>X</i>		<i>*</i>			<i>X</i>		<i>X</i>						
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X								
<i>Total Suspended Solids - mg/l</i>		<i>S.V. <math>\leq 25</math></i>			<i>*</i>											
<i>Turbidity - NTU</i>		<i>S.V. <math>\leq 10</math></i>			<i>*</i>											
<i>Color - PCU</i>		<i>S.V. <math>\leq 75</math></i>						<i>*</i>								
Total Dissolved Solids - mg/l		S.V. $\leq 500$ or the 95th percentile (whichever is less).	X	X				*								
<i>Chloride - mg/l</i>		<i>1-hr Avg. <math>\leq 860^d</math></i> <i>96-hr Avg. <math>\leq 230</math></i>	<i>X</i>		<i>*</i>			<i>X</i>		<i>X</i>						
<i>Sulfate - mg/l</i>		<i>S.V. <math>\leq 250</math></i>						<i>*</i>								
<i>Alkalinity (as CaCO3) - mg/l</i>		<i>S.V. <math>\geq 20</math></i>			<i>*</i>						<i>X</i>					
E. coli - No./100 ml		A.G.M. $\leq 126$ S.V. $\leq 410$					*	X								
Fecal Coliform - No./100 ml		S.V. $\leq 1000$	X	*				X	X		X					

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

**NAC 445A.1496 Humboldt Region: Maggie Creek at the Humboldt River. (NRS 445A.425, 445A.520)** The limits of this table apply to the body of water known as the Maggie Creek from its confluence with Soap Creek to its confluence with the Humboldt River. This segment of Maggie Creek is located in Elko County.

**STANDARDS OF WATER QUALITY**  
**Maggie Creek at the Humboldt River**

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>												
			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															
Temperature - °C $\Delta T^b$ - °C		S.V. $\leq 34$ $\Delta T = 0$			*	X									
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X	*					
Dissolved Oxygen - mg/l		S.V. $\geq 5.0$	X		*	X	X	X		X					
Total Phosphorus (as P) - mg/l		S.V. $\leq 0.33$			*	*	X	X							
<i>Nitrate (as N) - mg/l</i>		<i>S.V. <math>\leq 10</math></i>	<i>X</i>		<i>X</i>			*		<i>X</i>					
<i>Nitrite (as N) - mg/l</i>		<i>S.V. <math>\leq 1.0</math></i>	<i>X</i>		<i>*</i>			<i>X</i>		<i>X</i>					
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X							
<i>Total Suspended Solids - mg/l</i>		<i>S.V. <math>\leq 80</math></i>			<i>*</i>										
<i>Turbidity - NTU</i>		<i>S.V. <math>\leq 50</math></i>			<i>*</i>										
<i>Color - PCU</i>		<i>S.V. <math>\leq 75</math></i>						*							
Total Dissolved Solids - mg/l		S.V. $\leq 500$ or the 95th percentile (whichever is less).	X	X				*							
<i>Chloride - mg/l</i>		<i>1-hr Avg. <math>\leq 860^d</math></i> <i>96-hr Avg. <math>\leq 230</math></i>	<i>X</i>		<i>*</i>			<i>X</i>		<i>X</i>					
<i>Sulfate - mg/l</i>		<i>S.V. <math>\leq 250</math></i>						*							
<i>Alkalinity (as CaCO3) - mg/l</i>		<i>S.V. <math>\geq 20</math></i>			<i>*</i>					<i>X</i>					
E. coli - No./100 ml		A.G.M. $\leq 126$ S.V. $\leq 410$					*	X							
Fecal Coliform - No./100 ml		S.V. $\leq 1000$	X	*				X	X		X				

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

**NAC 445A.1498 Humboldt Region: Secret Creek at the national forest boundary. (NRS 445A.425, 445A.520)** The limits of this table apply to the body of water known as Secret Creek from its origin to the national forest boundary. This segment of Secret Creek is located in Elko County.

**STANDARDS OF WATER QUALITY**  
Secret Creek at the national forest boundary

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>													
			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																
Temperature - °C $\Delta T^b$ - °C		S.V. $\leq 20$ $\Delta T = 0$			*	X										
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X	*						
Dissolved Oxygen - mg/l		S.V. $\geq 6.0$	X		*	X	X	X		X						
Total Phosphorus (as P) - mg/l		S.V. $\leq 0.10$			*	*	X	X								
<i>Nitrate (as N) - mg/l</i>		<i>S.V. <math>\leq 10</math></i>	X		X			*		X						
<i>Nitrite (as N) - mg/l</i>		<i>S.V. <math>\leq 0.06</math></i>	X		*			X		X						
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X								
<i>Total Suspended Solids - mg/l</i>		<i>S.V. <math>\leq 25</math></i>			*											
<i>Turbidity - NTU</i>		<i>S.V. <math>\leq 10</math></i>			*											
<i>Color - PCU</i>		<i>S.V. <math>\leq 75</math></i>						*								
Total Dissolved Solids - mg/l		S.V. $\leq 500$ or the 95th percentile (whichever is less).	X	X				*								
<i>Chloride - mg/l</i>		<i>1-hr Avg. <math>\leq 860^d</math></i> <i>96-hr Avg. <math>\leq 230</math></i>	X		*			X		X						
<i>Sulfate - mg/l</i>		<i>S.V. <math>\leq 250</math></i>						*								
<i>Alkalinity (as CaCO<sub>3</sub>) - mg/l</i>		<i>S.V. <math>\geq 20</math></i>			*					X						
E. coli - No./100 ml		A.G.M. $\leq 126$ S.V. $\leq 410$				*	X									
Fecal Coliform - No./100 ml		S.V. $\leq 1000$	X	*			X	X		X						

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

**NAC 445A.1502 Humboldt Region: Secret Creek at the Humboldt River. (NRS 445A.425, 445A.520)** The limits of this table apply to the body of water known as Secret Creek from the national forest boundary to its confluence with the Humboldt River. This segment of Secret Creek is located in Elko County.

**STANDARDS OF WATER QUALITY  
Secret Creek at the Humboldt River**

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>													
			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			Trout													
Temperature - °C $\Delta T^b$ - °C		S.V. $\leq 20$ $\Delta T = 0$			*	X										
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X	*						
Dissolved Oxygen - mg/l		S.V. $\geq 6.0$	X		*	X	X	X		X						
Total Phosphorus (as P) - mg/l		S.V. $\leq 0.10$			*	*	X	X								
<i>Nitrate (as N) - mg/l</i>		<i>S.V. <math>\leq 10</math></i>	<i>X</i>		<i>X</i>			*		<i>X</i>						
<i>Nitrite (as N) - mg/l</i>		<i>S.V. <math>\leq 0.06</math></i>	<i>X</i>		*			<i>X</i>		<i>X</i>						
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X								
<i>Total Suspended Solids - mg/l</i>		<i>S.V. <math>\leq 25</math></i>			*											
<i>Turbidity - NTU</i>		<i>S.V. <math>\leq 10</math></i>			*											
<i>Color - PCU</i>		<i>S.V. <math>\leq 75</math></i>						*								
Total Dissolved Solids - mg/l		S.V. $\leq 500$ or the 95th percentile (whichever is less).	X	X				*								
<i>Chloride - mg/l</i>		<i>1-hr Avg. <math>\leq 860^d</math></i> <i>96-hr Avg. <math>\leq 230</math></i>	<i>X</i>		*			<i>X</i>		<i>X</i>						
<i>Sulfate - mg/l</i>		<i>S.V. <math>\leq 250</math></i>						*								
<i>Alkalinity (as CaCO3) - mg/l</i>		<i>S.V. <math>\geq 20</math></i>			*					<i>X</i>						
E. coli - No./100 ml		A.G.M. $\leq 126$ S.V. $\leq 410$				*	X									
Fecal Coliform - No./100 ml		S.V. $\leq 1000$	X	*				X	X		X					

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

**NAC 445A.1504 Humboldt Region: Lamoille Creek at the gaging station. (NRS 445A.425, 445A.520)** The limits of this table apply to the body of water known as Lamoille Creek from its origin to gaging station number 10-316500, located in the NE 1/4 of section 6, T. 32 N., R. 58 E., M.D.B. & M. This segment of Lamoille Creek is located in Elko County.

**STANDARDS OF WATER QUALITY  
Lamoille Creek at the gaging station**

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>													
			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																
Temperature - °C $\Delta T^b$ - °C		S.V. $\leq 20$ $\Delta T = 0$			*	X										
pH - SU		S.V. 6.5 - 9.0	X	X	*	*			X	X	*					
Dissolved Oxygen - mg/l		S.V. $\geq 6.0$	X		*	X	X	X			X					
Total Phosphorus (as P) - mg/l		S.V. $\leq 0.10$			*	*	X	X								
<i>Nitrate (as N) - mg/l</i>		<i>S.V. <math>\leq 10</math></i>	<i>X</i>		<i>X</i>				*		<i>X</i>					
<i>Nitrite (as N) - mg/l</i>		<i>S.V. <math>\leq 0.06</math></i>	<i>X</i>		*				<i>X</i>		<i>X</i>					
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X								
<i>Total Suspended Solids - mg/l</i>		<i>S.V. <math>\leq 25</math></i>			*											
<i>Turbidity - NTU</i>		<i>S.V. <math>\leq 10</math></i>			*											
<i>Color - PCU</i>		<i>S.V. <math>\leq 75</math></i>							*							
Total Dissolved Solids - mg/l		S.V. $\leq 500$ or the 95th percentile (whichever is less).	X	X					*							
<i>Chloride - mg/l</i>		<i>1-hr Avg. <math>\leq 860^d</math></i> <i>96-hr Avg. <math>\leq 230</math></i>	<i>X</i>		*				<i>X</i>		<i>X</i>					
<i>Sulfate - mg/l</i>		<i>S.V. <math>\leq 250</math></i>							*							
<i>Alkalinity (as CaCO3) - mg/l</i>		<i>S.V. <math>\geq 20</math></i>			*						<i>X</i>					
E. coli - No./100 ml		A.G.M. $\leq 126$ S.V. $\leq 410$				*	X									
Fecal Coliform - No./100 ml		S.V. $\leq 1000$	X	*				X	X		X					

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

**NAC 445A.1506 Humboldt Region: Lamoille Creek at the Humboldt River. (NRS 445A.425, 445A.520)** The limits of this table apply to the body of water known as Lamoille Creek from gaging station number 10-316500, located in the NE 1/4 of section 6, T. 32 N., R. 58 E., M.D.B. & M., to its confluence with the Humboldt River. This segment of Lamoille Creek is located in Elko County.

**STANDARDS OF WATER QUALITY  
Lamoille Creek at the Humboldt River**

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>													
			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																
Temperature - °C $\Delta T^b$ - °C		S.V. $\leq 24$ $\Delta T = 0$			*	X										
pH - SU		S.V. 6.5 - 9.0	X	X	*	*			X	X	*					
Dissolved Oxygen - mg/l		S.V. $\geq 5.0$	X		*	X	X	X			X					
Total Phosphorus (as P) - mg/l		S.V. $\leq 0.10$			*	*	X	X								
<i>Nitrate (as N) - mg/l</i>		<i>S.V. <math>\leq 10</math></i>	<i>X</i>		<i>X</i>				*		<i>X</i>					
<i>Nitrite (as N) - mg/l</i>		<i>S.V. <math>\leq 1.0</math></i>	<i>X</i>		*				<i>X</i>		<i>X</i>					
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X								
<i>Total Suspended Solids - mg/l</i>		<i>S.V. <math>\leq 80</math></i>			*											
<i>Turbidity - NTU</i>		<i>S.V. <math>\leq 50</math></i>			*											
<i>Color - PCU</i>		<i>S.V. <math>\leq 75</math></i>							*							
Total Dissolved Solids - mg/l		S.V. $\leq 500$ or the 95th percentile (whichever is less).	X	X					*							
<i>Chloride - mg/l</i>		<i>1-hr Avg. <math>\leq 860^d</math></i> <i>96-hr Avg. <math>\leq 230</math></i>	<i>X</i>		*				<i>X</i>		<i>X</i>					
<i>Sulfate - mg/l</i>		<i>S.V. <math>\leq 250</math></i>							*							
<i>Alkalinity (as CaCO3) - mg/l</i>		<i>S.V. <math>\geq 20</math></i>			*						<i>X</i>					
E. coli - No./100 ml		A.G.M. $\leq 126$ S.V. $\leq 410$					*	X								
Fecal Coliform - No./100 ml		S.V. $\leq 1000$	X	*				X	X		X					

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

**NAC 445A.1508 Humboldt Region: J.D. Ponds. (NRS 445A.425, 445A.520)** The limits of this table apply to the entire body of water known as J.D. Ponds. J.D. Ponds is located in Eureka County.

**STANDARDS OF WATER QUALITY  
J.D. Ponds**

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>													
			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																
Temperature - °C $\Delta T^b$ - °C		S.V. $\leq 34$ $\Delta T = 0$			*	X										
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X	*						
Dissolved Oxygen - mg/l		S.V. $\geq 5.0$	X		*	X	X	X		X						
Total Phosphorus (as P) - mg/l		S.V. $\leq 0.33$			*	*	X	X								
<i>Nitrate (as N) – mg/l</i>		<i>S.V. <math>\leq 10</math></i>	<i>X</i>		<i>X</i>			*		<i>X</i>						
<i>Nitrite (as N) – mg/l</i>		<i>S.V. <math>\leq 1.0</math></i>	<i>X</i>		*			<i>X</i>		<i>X</i>						
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X								
<i>Total Suspended Solids - mg/l</i>		<i>S.V. <math>\leq 80</math></i>			*											
<i>Turbidity - NTU</i>		<i>S.V. <math>\leq 50</math></i>			*											
<i>Color - PCU</i>		<i>S.V. <math>\leq 75</math></i>						*								
Total Dissolved Solids - mg/l		S.V. $\leq 500$ or the 95th percentile (whichever is less).	X	X				*								
<i>Chloride - mg/l</i>		<i>1-hr Avg. <math>\leq 860^d</math></i> <i>96-hr Avg. <math>\leq 230</math></i>	<i>X</i>		*			<i>X</i>		<i>X</i>						
<i>Sulfate - mg/l</i>		<i>S.V. <math>\leq 250</math></i>						*								
<i>Alkalinity (as CaCO3) - mg/l</i>		<i>S.V. <math>\geq 20</math></i>			*					<i>X</i>						
E. coli - No./100 ml		A.G.M. $\leq 126$ S.V. $\leq 410$				*	X									
Fecal Coliform - No./100 ml		S.V. $\leq 1000$	X	*				X	X		X					

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

**NAC 445A.1512 Humboldt Region: Denay Creek at Tonkin Reservoir. (NRS 445A.425, 445A.520)**  
 The limits of this table apply to the body of water known as Denay Creek from its origin to Tonkin Reservoir. This segment of Denay Creek is located in Eureka County.

**STANDARDS OF WATER QUALITY**  
**Denay Creek at Tonkin Reservoir**

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>														
			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																	
Temperature - °C $\Delta T^b$ - °C		S.V. $\leq 20$ $\Delta T = 0$			*	X											
pH - SU		S.V. 6.5 - 9.0	X	X	*	*			X	X	*						
Dissolved Oxygen - mg/l		S.V. $\geq 6.0$	X		*	X	X	X			X						
Total Phosphorus (as P) - mg/l		S.V. $\leq 0.10$			*	*	X	X									
<i>Nitrate (as N) – mg/l</i>		<i>S.V. <math>\leq 10</math></i>	X		X				*		X						
<i>Nitrite (as N) – mg/l</i>		<i>S.V. <math>\leq 0.06</math></i>	X		*				X		X						
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X									
<i>Total Suspended Solids - mg/l</i>		<i>S.V. <math>\leq 25</math></i>			*												
<i>Turbidity - NTU</i>		<i>S.V. <math>\leq 10</math></i>			*												
<i>Color - PCU</i>		<i>S.V. <math>\leq 75</math></i>							*								
Total Dissolved Solids - mg/l		S.V. $\leq 500$ or the 95th percentile (whichever is less).	X	X					*								
<i>Chloride - mg/l</i>		<i>1-hr Avg. <math>\leq 860^d</math></i> <i>96-hr Avg. <math>\leq 230</math></i>	X		*				X		X						
<i>Sulfate - mg/l</i>		<i>S.V. <math>\leq 250</math></i>							*								
<i>Alkalinity (as CaCO3) - mg/l</i>		<i>S.V. <math>\geq 20</math></i>			*						X						
E. coli - No./100 ml		A.G.M. $\leq 126$ S.V. $\leq 410$				*	X										
Fecal Coliform - No./100 ml		S.V. $\leq 1000$	X	*				X	X		X						

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

**NAC 445A.1514 Humboldt Region: Tonkin Reservoir. (NRS 445A.425, 445A.520)** The limits of this table apply to the entire body of water known as Tonkin Reservoir. Tonkin Reservoir is located in Eureka County.

**STANDARDS OF WATER QUALITY  
Tonkin Reservoir**

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>													
			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																
Temperature - °C $\Delta T^b$ - °C		S.V. $\leq 20$ $\Delta T = 0$			*	X										
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X	*						
Dissolved Oxygen - mg/l		S.V. $\geq 6.0$	X		*	X	X	X		X						
Total Phosphorus (as P) - mg/l		S.V. $\leq 0.10$			*	*	X	X								
<i>Nitrate (as N) - mg/l</i>		<i>S.V. <math>\leq 10</math></i>	X		X			*		X						
<i>Nitrite (as N) - mg/l</i>		<i>S.V. <math>\leq 0.06</math></i>	X		*			X		X						
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X								
<i>Total Suspended Solids - mg/l</i>		<i>S.V. <math>\leq 25</math></i>			*											
<i>Turbidity - NTU</i>		<i>S.V. <math>\leq 10</math></i>			*											
<i>Color - PCU</i>		<i>S.V. <math>\leq 75</math></i>						*								
Total Dissolved Solids - mg/l		S.V. $\leq 500$ or the 95th percentile (whichever is less).	X	X				*								
<i>Chloride - mg/l</i>		<i>1-hr Avg. <math>\leq 860^d</math></i> <i>96-hr Avg. <math>\leq 230</math></i>	X		*			X		X						
<i>Sulfate - mg/l</i>		<i>S.V. <math>\leq 250</math></i>						*								
<i>Alkalinity (as CaCO3) - mg/l</i>		<i>S.V. <math>\geq 20</math></i>			*					X						
E. coli - No./100 ml		A.G.M. $\leq 126$ S.V. $\leq 410$				*	X									
Fecal Coliform - No./100 ml		S.V. $\leq 1000$	X	*			X	X		X						

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

**NAC 445A.1516 Humboldt Region: Denay Creek below Tonkin Reservoir. (NRS 445A.425, 445A.520)** The limits of this table apply to the body of water known as Denay Creek below Tonkin Reservoir. This segment of Denay Creek is located in Eureka County.

**STANDARDS OF WATER QUALITY**  
Denay Creek below Tonkin Reservoir

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>													
			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																
Temperature - °C $\Delta T^b$ - °C		S.V. $\leq 24$ $\Delta T = 0$			*	X										
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X	*						
Dissolved Oxygen - mg/l		S.V. $\geq 5.0$	X		*	X	X	X		X						
Total Phosphorus (as P) - mg/l		S.V. $\leq 0.10$			*	*	X	X								
<i>Nitrate (as N) - mg/l</i>		<i>S.V. <math>\leq 10</math></i>	<i>X</i>		<i>X</i>			*		<i>X</i>						
<i>Nitrite (as N) - mg/l</i>		<i>S.V. <math>\leq 1.0</math></i>	<i>X</i>		<i>*</i>			<i>X</i>		<i>X</i>						
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X								
<i>Total Suspended Solids - mg/l</i>		<i>S.V. <math>\leq 80</math></i>			<i>*</i>											
<i>Turbidity - NTU</i>		<i>S.V. <math>\leq 50</math></i>			<i>*</i>											
<i>Color - PCU</i>		<i>S.V. <math>\leq 75</math></i>						*								
Total Dissolved Solids - mg/l		S.V. $\leq 500$ or the 95th percentile (whichever is less).	X	X				*								
<i>Chloride - mg/l</i>		<i>1-hr Avg. <math>\leq 860^d</math></i> <i>96-hr Avg. <math>\leq 230</math></i>	<i>X</i>		<i>*</i>			<i>X</i>		<i>X</i>						
<i>Sulfate - mg/l</i>		<i>S.V. <math>\leq 250</math></i>						*								
<i>Alkalinity (as CaCO<sub>3</sub>) - mg/l</i>		<i>S.V. <math>\geq 20</math></i>			<i>*</i>						<i>X</i>					
E. coli - No./100 ml		A.G.M. $\leq 126$ S.V. $\leq 410$					*	X								
Fecal Coliform - No./100 ml		S.V. $\leq 1000$	X	*				X	X		X					

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

**NAC 445A.1542 Humboldt Region: Huntington Creek at the White Pine-Elko county line. (NRS 445A.425, 445A.520)** The limits of this table apply to the body of water known as Huntington Creek from its origin to the White Pine-Elko county line. This segment of Huntington Creek is located in White Pine County.

**STANDARDS OF WATER QUALITY**  
**Huntington Creek at the White Pine-Elko county line**

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>													
			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																
Temperature - °C $\Delta T^b$ - °C		S.V. $\leq 20$ $\Delta T = 0$			*	X										
pH - SU		S.V. 6.5 - 9.0	X	X	*	*			X	X	*					
Dissolved Oxygen - mg/l		S.V. $\geq 6.0$	X		*	X	X	X			X					
Total Phosphorus (as P) - mg/l		S.V. $\leq 0.10$			*	*	X	X								
<i>Nitrate (as N) - mg/l</i>		<i>S.V. <math>\leq 10</math></i>	<i>X</i>		<i>X</i>				*		<i>X</i>					
<i>Nitrite (as N) - mg/l</i>		<i>S.V. <math>\leq 0.06</math></i>	<i>X</i>		*				<i>X</i>		<i>X</i>					
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X								
<i>Total Suspended Solids - mg/l</i>		<i>S.V. <math>\leq 25</math></i>			*											
<i>Turbidity - NTU</i>		<i>S.V. <math>\leq 10</math></i>			*											
<i>Color - PCU</i>		<i>S.V. <math>\leq 75</math></i>							*							
Total Dissolved Solids - mg/l		S.V. $\leq 500$ or the 95th percentile (whichever is less).	X	X					*							
<i>Chloride - mg/l</i>		<i>1-hr Avg. <math>\leq 860^d</math></i> <i>96-hr Avg. <math>\leq 230</math></i>	<i>X</i>		*				<i>X</i>		<i>X</i>					
<i>Sulfate - mg/l</i>		<i>S.V. <math>\leq 250</math></i>							*							
<i>Alkalinity (as CaCO3) - mg/l</i>		<i>S.V. <math>\geq 20</math></i>			*						<i>X</i>					
E. coli - No./100 ml		A.G.M. $\leq 126$ S.V. $\leq 410$				*	X									
Fecal Coliform - No./100 ml		S.V. $\leq 1000$	X	*				X	X		X					

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

**NAC 445A.1544 Humboldt Region: Huntington Creek at Smith Creek. (NRS 445A.425, 445A.520)**  
 The limits of this table apply to the body of water known as Huntington Creek from the White Pine-Elko county line to its confluence with Smith Creek. This segment of Huntington Creek is located in Elko County.

**STANDARDS OF WATER QUALITY**  
**Huntington Creek at Smith Creek**

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>													
			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			Trout													
Temperature - °C $\Delta T^b$ - °C		S.V. $\leq 20$ $\Delta T = 0$			*	X										
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X	*						
Dissolved Oxygen - mg/l		S.V. $\geq 6.0$	X		*	X	X	X		X						
Total Phosphorus (as P) - mg/l		S.V. $\leq 0.10$			*	*	X	X								
<i>Nitrate (as N) - mg/l</i>		<i>S.V. <math>\leq 10</math></i>	<i>X</i>		<i>X</i>			*		<i>X</i>						
<i>Nitrite (as N) - mg/l</i>		<i>S.V. <math>\leq 0.06</math></i>	<i>X</i>		<i>*</i>			<i>X</i>		<i>X</i>						
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X								
<i>Total Suspended Solids - mg/l</i>		<i>S.V. <math>\leq 25</math></i>			<i>*</i>											
<i>Turbidity - NTU</i>		<i>S.V. <math>\leq 10</math></i>			<i>*</i>											
<i>Color - PCU</i>		<i>S.V. <math>\leq 75</math></i>						*								
Total Dissolved Solids - mg/l		S.V. $\leq 500$ or the 95th percentile (whichever is less).	X	X				*								
<i>Chloride - mg/l</i>		<i>1-hr Avg. <math>\leq 860^d</math></i> <i>96-hr Avg. <math>\leq 230</math></i>	<i>X</i>		<i>*</i>			<i>X</i>		<i>X</i>						
<i>Sulfate - mg/l</i>		<i>S.V. <math>\leq 250</math></i>						*								
<i>Alkalinity (as CaCO<sub>3</sub>) - mg/l</i>		<i>S.V. <math>\geq 20</math></i>			<i>*</i>					<i>X</i>						
E. coli - No./100 ml		A.G.M. $\leq 126$ S.V. $\leq 410$					*	X								
Fecal Coliform - No./100 ml		S.V. $\leq 1000$	X	*				X	X		X					

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

**NAC 445A.1546 Humboldt Region: Huntington Creek at the South Fork of the Humboldt River. (NRS 445A.425, 445A.520)** The limits of this table apply to the body of water known as Huntington Creek from its confluence with Smith Creek to its confluence with the South Fork of the Humboldt River. This segment of Huntington Creek is located in Elko County.

**STANDARDS OF WATER QUALITY**  
**Huntington Creek at the South Fork of the Humboldt River**

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>												
			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															
Temperature - °C $\Delta T^b$ - °C		S.V. $\leq 24$ $\Delta T = 0$			*	X									
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X	*					
Dissolved Oxygen - mg/l		S.V. $\geq 5.0$	X		*	X	X	X		X					
Total Phosphorus (as P) - mg/l		S.V. $\leq 0.10$			*	*	X	X							
<i>Nitrate (as N) - mg/l</i>		<i>S.V. <math>\leq 10</math></i>	<i>X</i>		<i>X</i>			*		<i>X</i>					
<i>Nitrite (as N) - mg/l</i>		<i>S.V. <math>\leq 1.0</math></i>	<i>X</i>		<i>*</i>			<i>X</i>		<i>X</i>					
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X							
<i>Total Suspended Solids - mg/l</i>		<i>S.V. <math>\leq 80</math></i>			<i>*</i>										
<i>Turbidity - NTU</i>		<i>S.V. <math>\leq 50</math></i>			<i>*</i>										
<i>Color - PCU</i>		<i>S.V. <math>\leq 75</math></i>						*							
Total Dissolved Solids - mg/l		S.V. $\leq 500$ or the 95th percentile (whichever is less).	X	X				*							
<i>Chloride - mg/l</i>		<i>1-hr Avg. <math>\leq 860^d</math></i> <i>96-hr Avg. <math>\leq 230</math></i>	<i>X</i>		<i>*</i>			<i>X</i>		<i>X</i>					
<i>Sulfate - mg/l</i>		<i>S.V. <math>\leq 250</math></i>						*							
<i>Alkalinity (as CaCO3) - mg/l</i>		<i>S.V. <math>\geq 20</math></i>			<i>*</i>					<i>X</i>					
E. coli - No./100 ml		A.G.M. $\leq 126$ S.V. $\leq 410$					*	X							
Fecal Coliform - No./100 ml		S.V. $\leq 1000$	X	*				X	X		X				

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

**NAC 445A.1548 Humboldt Region: Green Mountain Creek at the national forest boundary Toyn Creek.** (NRS 445A.425, 445A.520) The limits of this table apply to the body of water known as Green Mountain Creek from its origin to **the national forest boundary its confluence with Toyn Creek.** **This segment of** Green Mountain Creek is located in Elko County.

**STANDARDS OF WATER QUALITY**  
Green Mountain Creek at **the national forest boundary Toyn Creek**

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>													
			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																
Temperature - °C $\Delta T^b$ - °C		S.V. $\leq 20$ $\Delta T = 0$			*	X										
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X	*						
Dissolved Oxygen - mg/l		S.V. $\geq 6.0$	X		*	X	X	X		X						
Total Phosphorus (as P) - mg/l		S.V. $\leq 0.10$			*	*	X	X								
<i>Nitrate (as N) – mg/l</i>		<i>S.V. <math>\leq 10</math></i>	X		X			*		X						
<i>Nitrite (as N) – mg/l</i>		<i>S.V. <math>\leq 0.06</math></i>	X		*			X		X						
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X								
<i>Total Suspended Solids - mg/l</i>		<i>S.V. <math>\leq 25</math></i>			*											
<i>Turbidity - NTU</i>		<i>S.V. <math>\leq 10</math></i>			*											
<i>Color - PCU</i>		<i>S.V. <math>\leq 75</math></i>						*								
Total Dissolved Solids - mg/l		S.V. $\leq 500$ or the 95th percentile (whichever is less).	X	X				*								
<i>Chloride - mg/l</i>		<i>1-hr Avg. <math>\leq 860^d</math></i> <i>96-hr Avg. <math>\leq 230</math></i>	X		*			X		X						
<i>Sulfate - mg/l</i>		<i>S.V. <math>\leq 250</math></i>						*								
<i>Alkalinity (as CaCO3) - mg/l</i>		<i>S.V. <math>\geq 20</math></i>			*					X						
E. coli - No./100 ml		A.G.M. $\leq 126$ S.V. $\leq 410$				*	X									
Fecal Coliform - No./100 ml		S.V. $\leq 1000$	X	*			X	X		X						

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

**NAC 445A.1554 Humboldt Region: Toyn Creek at Green Mountain Creek.** (NRS 445A.425, 445A.520) The limits of this table apply to the body of water known as Toyn Creek from its origin to **the national forest boundary its confluence with Green Mountain Creek.** This segment of Toyn Creek is located in Elko County.

**STANDARDS OF WATER QUALITY**  
**Toyn Creek at Green Mountain Creek**

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>													
			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																
Temperature - °C $\Delta T^b$ - °C		S.V. $\leq 20$ $\Delta T = 0$			*	X										
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X	*						
Dissolved Oxygen - mg/l		S.V. $\geq 6.0$	X		*	X	X	X		X						
Total Phosphorus (as P) - mg/l		S.V. $\leq 0.10$			*	*	X	X								
<i>Nitrate (as N) - mg/l</i>		<i>S.V. <math>\leq 10</math></i>	<i>X</i>		<i>X</i>			*		<i>X</i>						
<i>Nitrite (as N) - mg/l</i>		<i>S.V. <math>\leq 0.06</math></i>	<i>X</i>		<i>*</i>			<i>X</i>		<i>X</i>						
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X								
<i>Total Suspended Solids - mg/l</i>		<i>S.V. <math>\leq 25</math></i>			*											
<i>Turbidity - NTU</i>		<i>S.V. <math>\leq 10</math></i>			*											
<i>Color - PCU</i>		<i>S.V. <math>\leq 75</math></i>						*								
Total Dissolved Solids - mg/l		S.V. $\leq 500$ or the 95th percentile (whichever is less).	X	X				*								
<i>Chloride - mg/l</i>		<i>1-hr Avg. <math>\leq 860^d</math></i> <i>96-hr Avg. <math>\leq 230</math></i>	<i>X</i>		<i>*</i>			<i>X</i>		<i>X</i>						
<i>Sulfate - mg/l</i>		<i>S.V. <math>\leq 250</math></i>						*								
<i>Alkalinity (as CaCO3) - mg/l</i>		<i>S.V. <math>\geq 20</math></i>			*						<i>X</i>					
E. coli - No./100 ml		A.G.M. $\leq 126$ S.V. $\leq 410$				*	X									
Fecal Coliform - No./100 ml		S.V. $\leq 1000$	X	*			X	X		X						

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

NAC 445A.15525 Humboldt Region: **Green Mountain Toyn** Creek at Corral Creek. (NRS 445A.425, 445A.520) The limits of this table apply to the body of water known as **Green Mountain Toyn** Creek from ~~the national forest boundary from its confluence with Green Mountain Creek~~ to its confluence with Corral Creek. This segment of **Green Mountain Toyn** Creek is located in Elko County.

STANDARDS OF WATER QUALITY  
**Green Mountain Toyn** Creek at Corral Creek

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>												
			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			Trout												
Temperature - °C $\Delta T^b$ - °C		S.V. $\leq 20$ $\Delta T = 0$			*	X									
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X	*					
Dissolved Oxygen - mg/l		S.V. $\geq 6.0$	X		*	X	X	X		X					
Total Phosphorus (as P) - mg/l		S.V. $\leq 0.10$			*	*	X	X							
<i>Nitrate (as N) - mg/l</i>		<i>S.V. <math>\leq 10</math></i>	<i>X</i>		<i>X</i>			*		<i>X</i>					
<i>Nitrite (as N) - mg/l</i>		<i>S.V. <math>\leq 0.06</math></i>	<i>X</i>		*			<i>X</i>		<i>X</i>					
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X							
<i>Total Suspended Solids - mg/l</i>		<i>S.V. <math>\leq 25</math></i>			*										
<i>Turbidity - NTU</i>		<i>S.V. <math>\leq 10</math></i>			*										
<i>Color - PCU</i>		<i>S.V. <math>\leq 75</math></i>						*							
Total Dissolved Solids - mg/l		S.V. $\leq 500$ or the 95th percentile (whichever is less).	X	X				*							
<i>Chloride - mg/l</i>		<i>1-hr Avg. <math>\leq 860^d</math></i> <i>96-hr Avg. <math>\leq 230</math></i>	<i>X</i>		*			<i>X</i>		<i>X</i>					
<i>Sulfate - mg/l</i>		<i>S.V. <math>\leq 250</math></i>						*							
<i>Alkalinity (as CaCO3) - mg/l</i>		<i>S.V. <math>\geq 20</math></i>			*					<i>X</i>					
E. coli - No./100 ml		A.G.M. $\leq 126$ S.V. $\leq 410$				*	X								
Fecal Coliform - No./100 ml		S.V. $\leq 1000$	X	*				X	X		X				

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

**NAC 445A.1578 Humboldt Region: Starr Creek. (NRS 445A.425, 445A.520)** The limits of this table apply to the body of water known as Starr Creek from the confluence of Ackler and Herder Creeks to the Humboldt River. Starr Creek is located in Elko County.

**STANDARDS OF WATER QUALITY  
Starr Creek**

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use <sup>a</sup>														
			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			Trout														
Temperature - °C ΔT <sup>b</sup> - °C		S.V. ≤ 20 ΔT = 0			*	X											
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X	*							
Dissolved Oxygen - mg/l		S.V. ≥ 6.0	X		*	X	X	X		X							
Total Phosphorus (as P) - mg/l		S.V. ≤ 0.10			*	*	X	X									
<i>Nitrate (as N) – mg/l</i>		<i>S.V. ≤ 10</i>	<i>X</i>		<i>X</i>			*		<i>X</i>							
<i>Nitrite (as N) – mg/l</i>		<i>S.V. ≤ 0.06</i>	<i>X</i>		*			<i>X</i>		<i>X</i>							
Total Ammonia (as N) - mg/l		<sup>c</sup>			*			X									
<i>Total Suspended Solids - mg/l</i>		<i>S.V. ≤ 25</i>			*												
<i>Turbidity - NTU</i>		<i>S.V. ≤ 10</i>			*												
<i>Color - PCU</i>		<i>S.V. ≤ 75</i>						*									
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*									
<i>Chloride - mg/l</i>		<i>1-hr Avg. ≤ 860<sup>d</sup></i> <i>96-hr Avg. ≤ 230</i>	<i>X</i>		*			<i>X</i>		<i>X</i>							
<i>Sulfate - mg/l</i>		<i>S.V. ≤ 250</i>						*									
<i>Alkalinity (as CaCO3) - mg/l</i>		<i>S.V. ≥ 20</i>			*						<i>X</i>						
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410					*	X									
Fecal Coliform - No./100 ml		S.V. ≤ 1000	X	*				X	X		X						

\* = The most restrictive beneficial use.

X = Beneficial use.

<sup>a</sup> Refer to NAC 445A.122 and 445A.1252 for beneficial use terminology.

<sup>b</sup> 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.

<sup>c</sup> The ambient water quality criteria for ammonia are specified in NAC 445A.118.

<sup>d</sup> *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

## References

- FWPCA (Federal Water Pollution Control Administration). 1968. Water Quality Criteria (the “Green Book”), Report of the National Technical Advisory Committee to the Secretary of the Interior. U.S. Department of the Interior. Washington, DC.
- USEPA 1972. Water Quality Criteria (Blue Book). Prepared by the National Academy of Sciences – Committee on Water Quality Criteria. USEPA, Washington, DC.
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