State Environmental Commission
October 08, 2014

Petition R 102-14 (Tab # 10)

Revisions to the Upper Humboldt River Basin Class Waters

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Nevada Division of Environmental Protection
Bureau of Water Quality Planning
Water Quality Standards Program

Public Workshops

- Carson City – May 19, 2014
- Elko – May 21, 2014

Public Comments accepted through June 13, 2014

- No substantive comments received

Overview of Water Quality Standards

Key Elements

1) Designated beneficial uses
2) Criteria to protect beneficial use
    - Generally use EPA recommendations
    - Can develop regional or site specific
3) Antidegradation provision (RMHQ)
    - Not proposing RMHQs

Beneficial Uses, NAC 445A.122

- Municipal or domestic supply
- Irrigation
- Watering livestock
- Propagation of aquatic life (cold water species, warm water species)
- Propagation of wildlife
- Industrial supply
- Recreation involving contact with the water (swimming)
- Recreation not involving contact with the water (boating)

Background

- Changes are proposed to the Nevada Administrative Code (NAC) revising the Nevada water quality regulations for the former "Class Waters" located in the Upper Humboldt River Basin (UHRB) (NAC 445A.1432 – 1578).

- The UHRB includes the headwaters, tributaries, and main stem of the Humboldt River downstream to Palisade, Nevada.

"Class Waters"

- In 1973 the Class waters were created in the NAC and waterbodies were categorized by classes (A, B, C, and D) based on the degree of anthropogenic impact on the watershed. Each class category had its own table of standards.

Class A Waters - where the watershed is relatively undisturbed by man's activity.

Class B Waters - where the watershed is only moderately influenced by man's activity.

Class C Waters - where the watershed is considerably altered by man's activity.

Class D Waters – in areas of urban development, highly industrialized or intensively used for agriculture...

Class Waters continued:

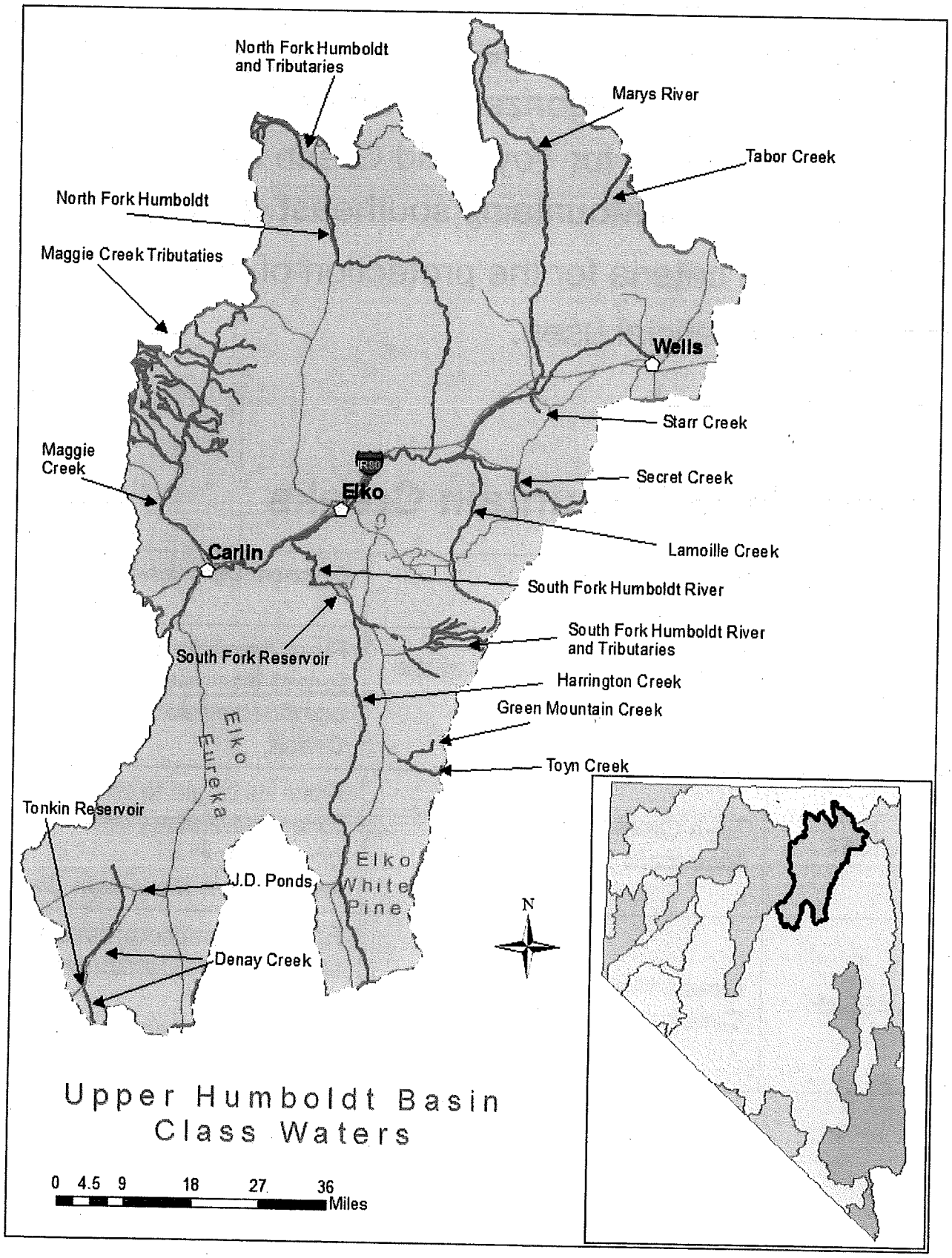
- Parameters

Temperature	Total Phosphorus
pH	Total Dissolved Solids
Dissolved Oxygen	Fecal Coliform

- In 2008, NDEP created a WQS table for each waterbody in the Class waters and ordered all the waterbodies by Hydrographic basin. NDEP also added the parameters Total Ammonia and E. Coli.

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

- The UHRB contains former Class A, B, and C waters

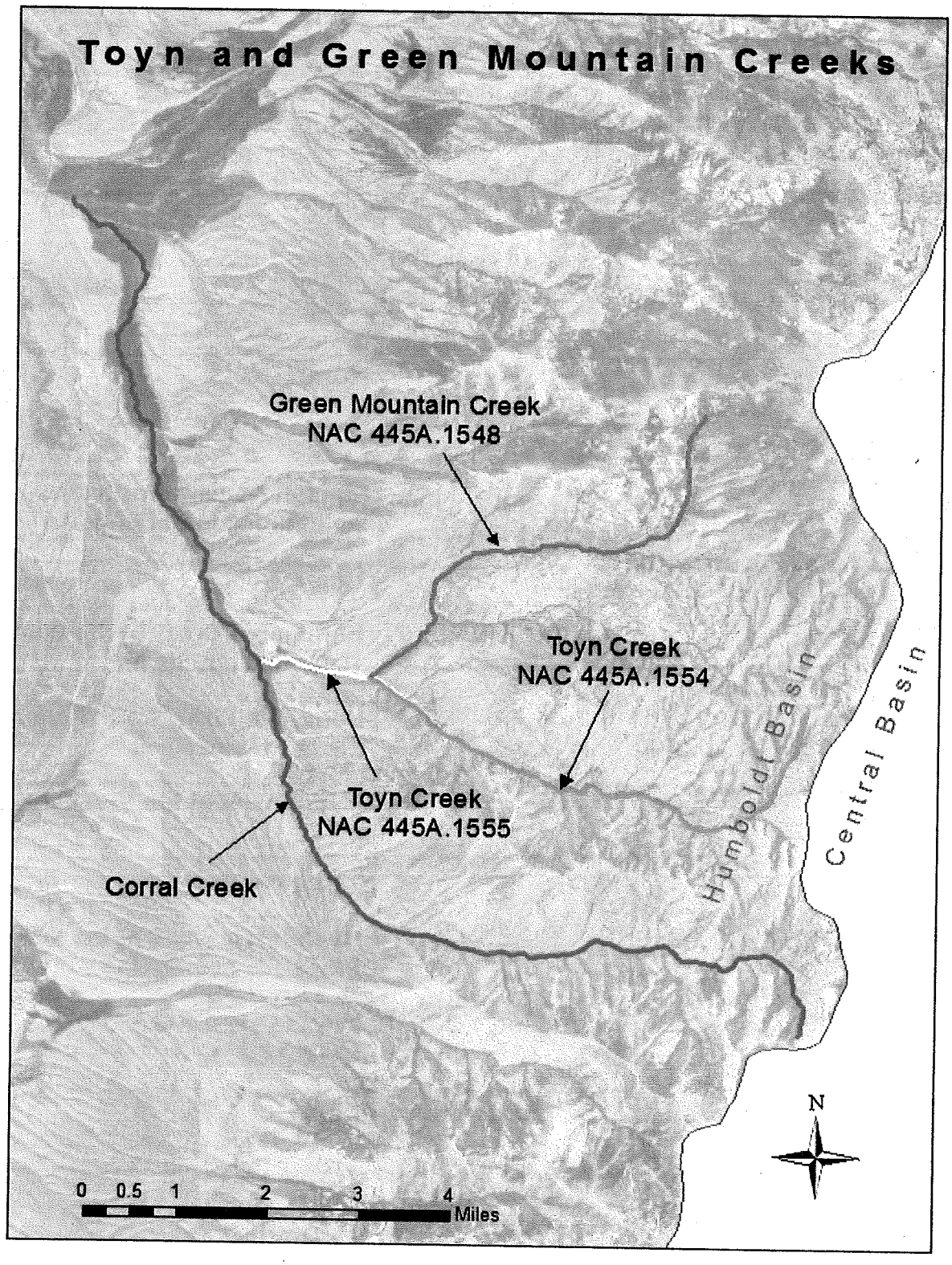

North Fork Humboldt and Tributaries
Marys River
Tabor Creek
North Fork Humboldt
Maggie Creek Tributaties
Wells
Starr Creek
Maggie Creek
Secret Creek
Elko
Carlin
Lamoille Creek
South Fork Humboldt River
South Fork Humboldt River and Tributaries
South Fork Reservoir
Harrington Creek
Green Mountain Creek
Toyn Creek
Tonkin Reservoir
Elko
Eureka
Elko
White Pine
J.D. Ponds
N
Denay Creek
Upper Humboldt Basin
Class Waters
0 4.5 9 18 27 36
Miles

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.
- Add additional criteria for the protection of the designated beneficial uses.

Toyn and Green Mountain Creeks

NAC	Waterbody Name	Segment Description
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.15525	~~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.


Toyn and Green Mountain Creeks
Green Mountain Creek
NAC 445A.1548
Toyn Creek
NAC 445A.1554
Toyn Creek
NAC 445A.1555
Corral Creek
Humboldt Basin
Central Basin
N
0 0.5 1 2 3 4
Miles

Proposed Numeric Criteria

Parameter	Criterion	Applicability	Exceedances
Nitrate	S.V. ≤ 10.0 mg/l	Trout & Non-Trout Waters	None
Nitrite	S.V. ≤ 0.06 mg/l	Trout Waters	None
	S.V. ≤ 1.0 mg/l	Non-Trout Waters	None
Chloride	1-hr avg. ≤ 860 mg/l 96-hr avg. ≤ 230 mg/l	Trout & Non-Trout Waters	None
Sulfate	S.V. ≤ 250 mg/l	Trout & Non-Trout Waters	None
Alkalinity (as $CaCO_3$)	S.V. ≥ 20 mg/l	Trout & Non-Trout Waters	**Humboldt River, North Fork at the national forest boundary**
Total Suspended Solids	S.V. ≤ 25 mg/l	Trout Waters	**Tabor Creek** **Huntington Creek at the White Pine-Elko county line**
	S.V. ≤ 80 mg/l	Non-Trout Waters	**Humboldt River, North Fork at the Humboldt River**
Turbidity	S.V. ≤ 10 NTU	Trout Waters	**Marys River at the Humboldt River** **Tabor Creek** **Huntington Creek at the White Pine-Elko county line** **Huntington Creek at Smith Creek**
	S.V. ≤ 50 NTU	Non-Trout Waters	None
Color	S.V. ≤ 75 PCU	Trout & Non-Trout Waters	None

NACs to be amended

Water Body Name	Segment Description	Water Quality Standard NAC Reference	Former Class and Trout or Non-Trout designation
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.	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.	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.	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.	445A.1492	B – Trout
Maggie Creek at Soap Creek	From its confluence with Jack Creek to its confluence with Soap Creek.	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

Water Body Name	Segment Description	Water Quality Standard NAC Reference	Former Class and Trout or Non-Trout designation
Secret Creek at the Humboldt River	From the national forest boundary to its confluence with the Humboldt River.	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.	445A.1512	A – Trout
Tonkin Reservoir	The entire reservoir.	445A.1514	A – Trout
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.	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 ~~the national forest boundary~~*Toyn Creek*	From its origin ~~to the national forest boundary~~*to its confluence with Toyn Creek.*	445A.1548	A – Trout
Toyn Creek *at Green Mountain Creek*	From its origin to ~~the national forest boundary~~*its confluence with Green Mountain Creek.*	445A.1554	A – Trout
~~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.	445A.155~~2~~5	B – Trout
Starr Creek	From the confluence of Ackler and Herder Creeks to its confluence with the Humboldt River.	445A.1578	B – Trout

Questions?

PROPOSED REGULATION OF THE

STATE ENVIRONMENTAL COMMISSION

LCB File No. R102-14

August 4, 2014

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

AUTHORITY: §§1-28, NRS 445A.425 and 445A.520.

A REGULATION relating to water quality; revising certain water quality standards for the Humboldt Region; and providing other matters properly relating thereto.

Legislative Counsel's Digest:

The State Environmental Commission is required to establish water quality standards to protect and ensure the continued beneficial use of each stream segment and other body of surface water in this State. (NRS 445A.520) **Section 1** of this regulation revises the descriptions of certain segments of Green Mountain Creek and Toyn Creek. **Sections 2-28** of this regulation revise various water quality standards for the Humboldt Region, including standards relating to nitrates, chlorides, sulfates, alkalinity, turbidity, color and suspended solids.

Section 1. NAC 445A.1432 is hereby amended to read as follows:

445A.1432 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 Life 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				Warm-water fishery	NAC 445A.1436

Water Body Name	Segment Description	Beneficial Uses										Aquatic Life Species of Concern	Water Quality Standard NAC Reference
		Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh	
Humboldt River at Palisade	From Osino to the Palisade Gage.	X	X	X	X	X	X	X	X				Warm-water fishery	NAC 445A.1438
Humboldt River at Battle Mountain	From the Palisade Gage to the Battle Mountain Gage.	X	X	X	X	X	X	X	X				Warm-water fishery	NAC 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				Warm-water fishery	NAC 445A.1444
Humboldt River at Imlay	From the Comus Gage to Imlay.	X	X	X	X	X	X	X	X				Warm-water fishery	NAC 445A.1446
Humboldt River at Woolsey	From Imlay to Woolsey.	X	X	X	X	X	X	X	X				Warm-water fishery	NAC 445A.1448
Humboldt River at Rodgers Dam	From Woolsey to Rodgers Dam.	X	X	X	X	X	X	X	X					NAC 445A.1452
Humboldt River at the Humboldt Sink	From Rodgers Dam to the Humboldt Sink.	X	X	X	X	X		X	X					NAC 445A.1454
The Humboldt Sink	The entire sink.	X	X	X		X		X	X					NAC 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					NAC 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				Trout	NAC 445A.1458

Water Body Name	Segment Description	Beneficial Uses											Aquatic Life Species of Concern	Water Quality Standard NAC Reference
		Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh		
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					NAC 445A.1462
Humboldt River, South Fork and tributaries at Lee	From their origin to Lee, except for the length of the river and the lengths of its tributaries within the exterior borders of the South Fork Indian Reservation.	X	X	X	X	X	X	X	X					NAC 445A.1464
Humboldt River, South Fork at the Humboldt River	From Lee to its confluence with the Humboldt River, except for the length of the river within the exterior borders of the South Fork Indian Reservation.	X	X	X	X	X	X	X	X				Trout	NAC 445A.1466
Little Humboldt River	The entire length.	X	X	X	X	X	X	X	X					NAC 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					NAC 445A.1472

Water Body Name	Segment Description	Beneficial Uses											Aquatic Life Species of Concern	Water Quality Standard NAC Reference
		Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh		
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					NAC 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					NAC 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					NAC 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					NAC 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	NAC 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					NAC 445A.1486

Water Body Name	Segment Description	Beneficial Uses											Aquatic Life Species of Concern	Water Quality Standard NAC Reference
		Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh		
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					NAC 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				Trout	NAC 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				Trout	NAC 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					NAC 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					NAC 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				Trout	NAC 445A.1502

Water Body Name	Segment Description	Beneficial Uses											Aquatic Life Species of Concern	Water Quality Standard NAC Reference
		Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh		
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					NAC 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					NAC 445A.1506
J.D. Ponds	The entire area.	X	X	X	X	X	X	X	X					NAC 445A.1508
Denay Creek at Tonkin Reservoir	From its origin to Tonkin Reservoir.	X	X	X	X	X	X	X	X					NAC 445A.1512
Tonkin Reservoir	The entire reservoir.	X	X	X	X	X	X	X	X					NAC 445A.1514
Denay Creek below Tonkin Reservoir	Below Tonkin Reservoir.	X	X	X	X	X	X	X	X					NAC 445A.1516
Rock Creek at Squaw Valley Ranch	From its origin to Squaw Valley Ranch.	X	X	X	X	X	X		X					NAC 445A.1518
Rock Creek below Squaw Valley Ranch	Below Squaw Valley Ranch.	X	X	X	X	X	X	X	X					NAC 445A.1522
Willow Creek at Willow Creek Reservoir	From its origin to Willow Creek Reservoir.	X	X	X	X	X	X		X					NAC 445A.1524

Water Body Name	Segment Description	Beneficial Uses											Aquatic Life Species of Concern	Water Quality Standard NAC Reference
		Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh		
Willow Creek Reservoir	The entire reservoir.	X	X	X	X	X	X	X	X				Trout	NAC 445A.1526
North Antelope Creek	From its origin to its confluence with Antelope Creek.	X		X	X	X		X	X					NAC 445A.1527
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					NAC 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					NAC 445A.1532
Martin Creek at the national forest boundary	From its origin to the national forest boundary.	X	X	X	X	X	X		X					NAC 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	NAC 445A.1536
Dutch John Creek	The entire length.	X	X	X	X	X	X		X					NAC 445A.1538

Water Body Name	Segment Description	Beneficial Uses											Aquatic Life Species of Concern	Water Quality Standard NAC Reference
		Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh		
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					NAC 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	NAC 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					NAC 445A.1546
Green Mountain Creek at ~~[the national forest boundary]~~ *Toyn Creek*	From its origin to ~~[the national forest boundary.]~~ *its confluence with Toyn Creek.*	X	X	X	X	X	X	*X*	X					NAC 445A.1548
~~[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.	X	X	X	X	X	X	X	X				Trout	NAC 445A.1552
Toyn Creek *at Green Mountain Creek*	From its origin to ~~[the national forest boundary.]~~ *its confluence with Green Mountain Creek.*	X	X	X	X	X	X	*X*	X					NAC 445A.1554

Water Body Name	Segment Description	Beneficial Uses											Aquatic Life Species of Concern	Water Quality Standard NAC Reference
		Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh		
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					NAC 445A.1556
Reese River at State Route 722	From its confluence with Indian Creek to State Route 722 (old U.S. Highway 50), except for the length of the river within the exterior borders of the Yomba Indian Reservation.	X	X	X	X	X	X	X	X				Trout	NAC 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					NAC 445A.1562
San Juan Creek	From its origin to the national forest boundary.	X	X	X	X	X	X		X					NAC 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					NAC 445A.1566

Water Body Name	Segment Description	Beneficial Uses											Aquatic Life Species of Concern	Water Quality Standard NAC Reference
		Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh		
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	NAC 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					NAC 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					NAC 445A.1574
Iowa Canyon Reservoir	The entire reservoir.	X	X	X	X	X	X	X	X				Trout	NAC 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	NAC 445A.1578
Irrigation	Irrigation													

Water Body Name	Segment Description	Beneficial Uses										Aquatic Life Species of Concern	Water Quality Standard NAC Reference
		Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh	
Livestock	Watering of livestock												
Contact	Recreation involving contact with the water												
Noncontact	Recreation not involving contact with the water												
Industrial	Industrial supply												
Municipal	Municipal or domestic supply, or both												
Wildlife	Propagation of wildlife												
Aquatic	Propagation of aquatic life												
Aesthetic	Waters of extraordinary ecological or aesthetic value												
Enhance	Enhancement of water quality												
Marsh	Maintenance of a freshwater marsh												

Sec. 2. NAC 445A.1456 is hereby amended to read as follows:

445A.1456 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[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	*X*	X			
Aquatic Life Species of Concern													
Temperature - °C ΔT^b - °C		S.V. ≤ 20 $\Delta T = 0$			*	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					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 0.06*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		[c]			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 25*			*								
Turbidity - NTU		*S.V. ≤ 10*			*								
Color - PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[d]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Alkalinity (as $CaCO_3$) - mg/l		*S.V. ≥ 20*			*					*X*			
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X						
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X			

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

[d] ***One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.***

Sec. 3. NAC 445A.1458 is hereby amended to read as follows:

445A.1458 The limits of this table apply to the body 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	WATER QUALITY	Beneficial Use[a]

	TO MAINTAIN EXISTING HIGHER QUALITY	STANDARDS FOR BENEFICIAL USES	Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	X	X			
Aquatic Life Species of Concern			Trout.										
Temperature - °C ΔT^b - °C		S.V. ≤ 20 $\Delta T = 0$			*	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					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 0.06*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		°			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 25*			*								
Turbidity - NTU		*S.V. ≤ 10*			*								
Color - PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[f]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					
Alkalinity (as $CaCO_3$) - mg/l		*S.V. ≥ 20*			*					*X*			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X						
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X			

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

[d] ***One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.***

Sec. 4. NAC 445A.1462 is hereby amended to read as follows:

445A.1462 The limits of this table apply to the body 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[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	X	X			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Aquatic Life Species of Concern													
Temperature - °C ΔT^b - °C		S.V. ≤ 24 $\Delta T = 0$			*	X							
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X	*			
Dissolved Oxygen - mg/l		S.V. ≥ 5.0	X		*	X	X	X		X			
Total Phosphorus (as P) - mg/l		S.V. ≤ 0.10			*	*	X	X					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 1.0*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		[c]			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 80*			*								
Turbidity - NTU		*S.V. ≤ 50*			*								
Color - PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[d]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					
Alkalinity (as $CaCO_3$) - mg/l		*S.V. ≥ 20*			*					*X*			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X						
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X			

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

[d] ***One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.***

Sec. 5. NAC 445A.1464 is hereby amended to read as follows:

445A.1464 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 length of the river and the lengths of its 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[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	X	X			
Aquatic Life Species of Concern													
Temperature - °C ΔT^b - °C		S.V. ≤ 20 $\Delta T = 0$			*	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					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 0.06*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		[c]			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 25*			*								
Turbidity – NTU		*S.V. ≤ 10*			*								
Color – PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[d]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Alkalinity (as $CaCO_3$) - mg/l		*S.V. ≥ 20*			*					*X*			
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X						
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X			

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

[d] *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

Sec. 6. NAC 445A.1466 is hereby amended to read as follows:

445A.1466 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, except for the length of the river within the exterior borders of the South Fork Indian Reservation. 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	WATER QUALITY	Beneficial Use[a]

	TO MAINTAIN EXISTING HIGHER QUALITY	STANDARDS FOR BENEFICIAL USES	Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	X	X			
Aquatic Life Species of Concern			Trout.										
Temperature - °C ΔT^b - °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					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 0.06*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		[c]			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 25*			*								
Turbidity – NTU		*S.V. ≤ 10*			*								
Color – PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[d]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					
Alkalinity (as $CaCO_3$) - mg/l		*S.V. ≥ 20*			*					*X*			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X						
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X			

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

[d] *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

Sec. 7. NAC 445A.1482 is hereby amended to read as follows:

445A.1482 The limits of this table apply to the body of water known as 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[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	X	X			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Aquatic Life Species of Concern													
Temperature - °C ΔT^b - °C		S.V. ≤ 20 $\Delta T = 0$			*	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					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 0.06*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		[c]			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 25*			*								
Turbidity – NTU		*S.V. ≤ 10*			*								
Color – PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[d]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					
Alkalinity (as $CaCO_3$) - mg/l		*S.V. ≥ 20*			*					*X*			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X						
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X			

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

[d] ***One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.***

Sec. 8. NAC 445A.1484 is hereby amended to read as follows:

445A.1484 The limits of this table apply to the body of water known as 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[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	X	X			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Aquatic Life Species of Concern			Trout.										
Temperature - °C ΔT^b - °C		S.V. ≤ 20 $\Delta T = 0$			*	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					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 0.06*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		[c]			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 25*			*								
Turbidity – NTU		*S.V. ≤ 10*			*								
Color – PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[d]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					
Alkalinity (as $CaCO_3$) - mg/l		*S.V. ≥ 20*			*					*X*			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X						
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X			

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

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

Sec. 9. NAC 445A.1486 is hereby amended to read as follows:

445A.1486 The limits of this table apply to the body of water known as 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[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	X	X			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Aquatic Life Species of Concern													
Temperature - °C ΔT^b - °C		S.V. ≤ 20 $\Delta T = 0$			*	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					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 0.06*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		[c]			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 25*			*								
Turbidity - NTU		*S.V. ≤ 10*			*								
Color - PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[d]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					
Alkalinity (as $CaCO_3$) - mg/l		*S.V. ≥ 20*			*					*X*			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X						
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X			

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

[d] ***One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.***

Sec. 10. NAC 445A.1488 is hereby amended to read as follows:

445A.1488 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[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	X	X			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Aquatic Life Species of Concern													
Temperature - °C ΔT^b - °C		S.V. ≤ 20 $\Delta T = 0$			*	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					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 0.06*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		[c]			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 25*			*								
Turbidity - NTU		*S.V. ≤ 10*			*								
Color - PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[d]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					
Alkalinity (as $CaCO_3$) - mg/l		*S.V. ≥ 20*			*					*X*			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X						
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X			

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

[d] ***One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.***

Sec. 11. NAC 445A.1492 is hereby amended to read as follows:

445A.1492 The limits of this table apply to the body of water known as 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 and Eureka Counties.

STANDARDS OF WATER QUALITY

Maggie Creek at Jack Creek

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	X	X			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Aquatic Life Species of Concern			Trout.										
Temperature - °C ΔT^b - °C		S.V. ≤ 20 $\Delta T = 0$			*	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					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 0.06*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		[c]			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 25*			*								
Turbidity - NTU		*S.V. ≤ 10*			*								
Color - PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[d]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					
Alkalinity (as $CaCO_3$) - mg/l		*S.V. ≥ 20*			*					*X*			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X						
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X			

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

[d] ***One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.***

Sec. 12. NAC 445A.1494 is hereby amended to read as follows:

445A.1494 The limits of this table apply to the body of water known as Maggie Creek from its confluence with Jack Creek to its confluence with Soap Creek. This segment of Maggie Creek is located in Eureka 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[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	X	X			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Aquatic Life Species of Concern			Trout.										
Temperature - °C ΔT^b - °C		S.V. ≤ 20 $\Delta T \leq 3$			*	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. ≤ 0.33			*	*	X	X					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 0.06*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		[c]			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 25*			*								
Turbidity - NTU		*S.V. ≤ 10*			*								
Color - PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[d]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					
Alkalinity (as $CaCO_3$) - mg/l		*S.V. ≥ 20*			*					*X*			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X						
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X			

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

[d] ***One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.***

Sec. 13. NAC 445A.1496 is hereby amended to read as follows:

445A.1496 The limits of this table apply to the body of water known as Maggie Creek from its confluence with Soap Creek to its confluence with the Humboldt River. This segment of Maggie Creek is located in Elko and Eureka Counties.

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[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	X	X			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Aquatic Life Species of Concern													
Temperature - °C ΔT^b - °C		S.V. ≤ 34 $\Delta T \leq 3$			*	X							
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X	*			
Dissolved Oxygen - mg/l		S.V. ≥ 5.0	X		*	X	X	X		X			
Total Phosphorus (as P) - mg/l		S.V. ≤ 0.33			*	*	X	X					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 1.0*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		[c]			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 80*			*								
Turbidity - NTU		*S.V. ≤ 50*			*								
Color - PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[f]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					
Alkalinity (as $CaCO_3$) - mg/l		*S.V. ≥ 20*			*					*X*			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X						
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X			

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

[d] ***One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.***

Sec. 14. NAC 445A.1498 is hereby amended to read as follows:

445A.1498 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[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	X	X			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Aquatic Life Species of Concern													
Temperature - °C ΔT^b - °C		S.V. ≤ 20 $\Delta T = 0$			*	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					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 0.06*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		[c]			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 25*			*								
Turbidity - NTU		*S.V. ≤ 10*			*								
Color - PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[d]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					
Alkalinity (as $CaCO_3$) - mg/l		*S.V. ≥ 20*			*					*X*			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X						
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X			

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

[d] *One-hour and 96-hour concentration limits may be exceeded only once every 3 years.*

Sec. 15. NAC 445A.1502 is hereby amended to read as follows:

445A.1502 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[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	X	X			
Aquatic Life Species of Concern			Trout.										

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Temperature - °C ΔT^b - °C		S.V. ≤ 20 $\Delta T = 0$			*	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					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 0.06*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		[c]			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 25*			*								
Turbidity - NTU		*S.V. ≤ 10*			*								
Color - PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[d]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					
Alkalinity (as $CaCO_3$) - mg/l		*S.V. ≥ 20*			*					*X*			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X						
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X			

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

[d] *One-hour and 96-hour concentration limits may be exceeded only once every 3 years.*

Sec. 16. NAC 445A.1504 is hereby amended to read as follows:

445A.1504 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[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	X	X			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Aquatic Life Species of Concern													
Temperature - °C ΔT^b - °C		S.V. ≤ 20 $\Delta T = 0$			*	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					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 0.06*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		[c]			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 25*			*								
Turbidity - NTU		*S.V. ≤ 10*			*								
Color - PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[d]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					
Alkalinity (as $CaCO_3$) - mg/l		*S.V. ≥ 20*			*					*X*			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X						
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X			

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

[d] *One-hour and 96-hour concentration limits may be exceeded only once every 3 years.*

Sec. 17. NAC 445A.1506 is hereby amended to read as follows:

445A.1506 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[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	X	X			
Aquatic Life Species of Concern													
Temperature - °C ΔT^b - °C		S.V. ≤ 24 $\Delta T = 0$			*	X							
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X	*			
Dissolved Oxygen - mg/l		S.V. ≥ 5.0	X		*	X	X	X		X			
Total Phosphorus (as P) - mg/l		S.V. ≤ 0.10			*	*	X	X					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 1.0*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		[c]			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 80*			*								
Turbidity - NTU		*S.V. ≤ 50*			*								
Color - PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[d]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Alkalinity (as $CaCO_3$) - mg/l		*S.V. ≥ 20*			*					*X*			
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X						
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X			

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

[d] ***One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.***

Sec. 18. NAC 445A.1508 is hereby amended to read as follows:

445A.1508 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[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	X	X			
Aquatic Life Species of Concern													
Temperature - °C ΔT^b - °C		S.V. ≤ 34 $\Delta T \leq 3$			*	X							
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X	*			
Dissolved Oxygen - mg/l		S.V. ≥ 5.0	X		*	X	X	X		X			
Total Phosphorus (as P) - mg/l		S.V. ≤ 0.33			*	*	X	X					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 1.0*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		[c]			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 80*			*								
Turbidity - NTU		*S.V. ≤ 50*			*								
Color - PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[d]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Alkalinity (as $CaCO_3$) - mg/l		*S.V. ≥ 20*			*					*X*			
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X						
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X			

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

[d] ***One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.***

Sec. 19. NAC 445A.1512 is hereby amended to read as follows:

445A.1512 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[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	*X*	X			
Aquatic Life Species of Concern													
Temperature - °C ΔT^b - °C		S.V. ≤ 20 $\Delta T = 0$			*	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					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 0.06*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		[c]			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 25*			*								
Turbidity - NTU		*S.V. ≤ 10*			*								
Color - PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[d]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Alkalinity (as $CaCO_3$) - mg/l		*S.V. ≥ 20*			*					*X*			
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X						
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X			

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

[d] ***One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.***

Sec. 20. NAC 445A.1514 is hereby amended to read as follows:

445A.1514 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[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	X	X			
Aquatic Life Species of Concern													
Temperature - °C ΔT^b - °C		S.V. ≤ 20 $\Delta T = 0$			*	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. ≤ 0.025			*	*	X	X					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 0.06*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		[c]			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 25*			*								
Turbidity - NTU		*S.V. ≤ 10*			*								
Color - PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[d]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Alkalinity (as $CaCO_3$) - mg/l		*S.V. ≥ 20*			*					*X*			
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X						
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X			

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

[d] *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

Sec. 21. NAC 445A.1516 is hereby amended to read as follows:

445A.1516 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[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	X	X			
Aquatic Life Species of Concern													
Temperature - °C ΔT^b - °C		S.V. ≤ 24 $\Delta T = 0$			*	X							
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X	*			
Dissolved Oxygen - mg/l		S.V. ≥ 5.0	X		*	X	X	X		X			
Total Phosphorus (as P) - mg/l		S.V. ≤ 0.10			*	*	X	X					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 1.0*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		[c]			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 80*			*								
Turbidity - NTU		*S.V. ≤ 50*			*								
Color - PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[d]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]									
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance Marsh
Alkalinity (as $CaCO_3$) - mg/l		*S.V. ≥ 20*			*					*X*		
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X					
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X		

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

[d] *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

Sec. 22. NAC 445A.1542 is hereby amended to read as follows:

445A.1542 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	WATER QUALITY	Beneficial Use[a]

	TO MAINTAIN EXISTING HIGHER QUALITY	STANDARDS FOR BENEFICIAL USES	Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	*X*	X			
Aquatic Life Species of Concern													
Temperature - °C ΔT^b - °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					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 0.06*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		[c]			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 25*			*								
Turbidity - NTU		*S.V. ≤ 10*			*								
Color - PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[d]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					
Alkalinity (as $CaCO_3$) - mg/l		*S.V. ≥ 20*			*					*X*			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X						
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X			

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

[d] ***One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.***

Sec. 23. NAC 445A.1544 is hereby amended to read as follows:

445A.1544 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[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	X	X			
Aquatic Life Species of Concern			Trout.										
Temperature - °C ΔT^b - °C		S.V. ≤ 20 $\Delta T = 0$			*	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					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 0.06*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		[c]			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 25*			*								
Turbidity - NTU		*S.V. ≤ 10*			*								
Color - PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[d]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Alkalinity (as $CaCO_3$) - mg/l		*S.V. ≥ 20*			*					*X*			
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X						
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X			

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

[d] ***One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.***

Sec. 24. NAC 445A.1546 is hereby amended to read as follows:

445A.1546 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	WATER QUALITY	Beneficial Use[a]

	TO MAINTAIN EXISTING HIGHER QUALITY	STANDARDS FOR BENEFICIAL USES	Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	X	X			
Aquatic Life Species of Concern													
Temperature - °C ΔT^b - °C		S.V. ≤ 24 $\Delta T = 0$			*	X							
pH - SU		S.V. 6.5 - 9.0	X	X	*	*		X	X	*			
Dissolved Oxygen - mg/l		S.V. ≥ 5.0	X		*	X	X	X		X			
Total Phosphorus (as P) - mg/l		S.V. ≤ 0.10			*	*	X	X					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 1.0*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		[c]			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 80*			*								
Turbidity - NTU		*S.V. ≤ 50*			*								
Color - PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[d]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					
Alkalinity (as $CaCO_3$) - mg/l		*S.V. ≥ 20*			*					*X*			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X						
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X			

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

[d] ***One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.***

Sec. 25. NAC 445A.1548 is hereby amended to read as follows:

445A.1548 The limits of this table apply to the body of water known as Green Mountain Creek from its origin to ~~[the national forest boundary. This segment of]~~ ***its confluence with Toyn Creek.*** 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[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	X	X			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Aquatic Life Species of Concern													
Temperature - °C ΔT^b - °C		S.V. ≤ 20 $\Delta T = 0$			*	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					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 0.06*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		[c]			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 25*			*								
Turbidity - NTU		*S.V. ≤ 10*			*								
Color - PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[d]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					
Alkalinity (as $CaCO_3$) - mg/l		*S.V. ≥ 20*			*					*X*			

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X						
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X			

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

[d] ***One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.***

Sec. 26. NAC 445A.1552 is hereby amended to read as follows:

445A.1552 The limits of this table apply to the body of water known as ~~[Green Mountain]~~ ***Toyn*** Creek from ~~[the national forest boundary]~~ ***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[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	X	X			
Aquatic Life Species of Concern			Trout.										
Temperature - °C ΔT^b - °C		S.V. ≤ 20 $\Delta T = 0$			*	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					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 0.06*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		[c]			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 25*			*								
Turbidity - NTU		*S.V. ≤ 10*			*								
Color - PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[d]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Alkalinity (as $CaCO_3$) - mg/l		***S.V. ≥ 20***			*					***X***			
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X						
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X			

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

[d] ***One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.***

Sec. 27. NAC 445A.1554 is hereby amended to read as follows:

445A.1554 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[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	*X*	X			
Aquatic Life Species of Concern													
Temperature - °C ΔT^b - °C		S.V. ≤ 20 $\Delta T = 0$			*	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					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 0.06*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		[c]			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 25*			*								
Turbidity - NTU		*S.V. ≤ 10*			*								
Color - PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[d]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Alkalinity (as $CaCO_3$) - mg/l		*S.V. ≥ 20*			*					*X*			
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X						
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X			

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

[d] ***One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.***

Sec. 28. NAC 445A.1578 is hereby amended to read as follows:

445A.1578 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[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Beneficial Uses			X	X	X	X	X	X	X	X			
Aquatic Life Species of Concern			Trout.										
Temperature - °C ΔT^b - °C		S.V. ≤ 20 $\Delta T = 0$			*	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					
Nitrate (as N) - mg/l		*S.V. ≤ 10*	*X*		*X*			*		*X*			
Nitrite (as N) - mg/l		*S.V. ≤ 0.06*	*X*		*			*X*		*X*			
Total Ammonia (as N) - mg/l		[c]			*			X					
Total Suspended Solids - mg/l		*S.V. ≤ 25*			*								
Turbidity – NTU		*S.V. ≤ 10*			*								
Color – PCU		*S.V. ≤ 75*						*					
Total Dissolved Solids - mg/l		S.V. ≤ 500 or the 95th percentile (whichever is less).	X	X				*					
Chloride - mg/l		*1-hr Avg. ≤ 860[d]* *96-hr Avg. ≤ 230*	*X*		*			*X*		*X*			
Sulfate - mg/l		*S.V. ≤ 250*						*					

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	Beneficial Use[a]										
			Livestock	Irrigation	Aquatic	Contact	Noncontact	Municipal	Industrial	Wildlife	Aesthetic	Enhance	Marsh
Alkalinity (as $CaCO_3$) - mg/l		*S.V. ≥ 20*			*					*X*			
E. coli - No./100 ml		A.G.M. ≤ 126 S.V. ≤ 410				*	X						
Fecal Coliform - No./100 ml		S.V. ≤ 1,000	X	*			X	X		X			

* = The most restrictive beneficial use.

X = Beneficial use.

[a] Refer to NAC 445A.122 and 445A.1432 for beneficial use terminology.

[b] Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.

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

[d] *One-hour and 96-hour average concentration limits may be exceeded only once every 3 years.*

FORM FOR PETITIONING THE STATE ENVIRONMENTAL COMMISSION FOR ADOPTION, FILING AMENDMENTS OR REPEAL OF COMMISSION REGULATIONS.
Form #1

Re: Petition 2014-05 Proposed Upper Humboldt Class Waters - Water Quality Standards Revisions

1. Name, Address, telephone number, date of petition, representative capacity and signature of petitioner, authorized individual, officer or attorney.

Kathy Sertic
Chief, Bureau of Water Quality Planning
901 S. Stewart St., Suite 4001
Carson City, Nevada 89701
(775) 687-9455

June 27, 2014

Kathy Sertic

2. Specific type of petitioner (individual, partnership, corporation, government agency, or other) and the exact occupation or business, including a description of the occupation or business if necessary.

Government Agency – Nevada Division of Environmental Protection (NDEP)

3. Exact and specific nature of changes sought, including delineation of the regulations, statutory provisions of Commission decisions involved. May include a statement of the written term or substance of the proposed regulatory action, or a description of the subjects and issues involved.

NDEP is proposing changes to the Nevada Administrative Code (NAC) revising the Nevada water quality regulations for the former "Class Waters" located in the Upper Humboldt River Basin. Revisions include the addition of numeric criteria for nitrate, nitrite, total suspended solids, turbidity, color, chloride, sulfate and alkalinity based upon guidance published by the U.S. Environmental Protection Agency (EPA). These additions were deemed necessary to properly protect the beneficial uses.

4. A statement of the need for and purpose of the proposed regulations.

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

5(a). A statement of the estimated economic effect of the regulation on the business which it is to regulate, including (1) Both adverse and beneficial effects; and (2) Both immediate and long-term effects.

The proposed revisions are not expected to have any direct economic effect on the regulated community both immediately and long term. Water quality standards in of themselves do not directly regulate businesses, although standards do form the basis for effluent limits imposed by NDEP through the National Pollutant Discharge Elimination System (NPDES) permit program and the terms and conditions imposed through the Clean Water Act 401 program for any dredging or filling activity in Nevada waters. Currently, there is only one active NPDES permit for a discharge to any of the waters addressed in this proposal. Newmont Mining Corporation's Gold Quarry Mine has an NPDES permit to discharge mine dewatering water to Maggie Creek. A review of the available water quality data for Gold Quarry Mine indicates that the discharge is meeting the proposed additional water quality criteria.

5(b). A statement of the estimated economic effect on the public, including (1) Both adverse and beneficial effects; and (2) Both immediate and long-term effects.

The proposed revisions are expected to have some beneficial economic effect on the public both immediately and long-term. Overall, the current water quality standards have beneficial effects in terms of protecting public health and welfare, and supporting aquatic, wildlife, and recreational uses. All of these factors provide economic benefits to the public. The proposed changes will provide additional protection of the beneficial uses, thereby improving the level of public benefit.

5(c). A statement of the estimated cost by the agency for enforcement of the proposed regulation.

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

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

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

7. If the regulation includes provisions which are more stringent than a federal regulation which regulates the same activity, a summary of such provisions. The statement must include the specific citation of the federal statute or regulation requiring such adoption.

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

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

   The proposed regulation revision does not provide for fees.

####

FORM #4

NEVADA STATE ENVIRONMENTAL COMMISSION
SMALL BUSINESS IMPACT DISCLOSURE PROCESS
PURSUANT TO 233B "Nevada Administrative Procedures Act"

Re: Petition 2014-05 Proposed Upper Humboldt Class Waters - Water Quality Standards Revisions

The purpose of this Form is to provide a framework pursuant to NRS 233B.0608 for drafting and submitting a Small Business Impact Statement (SBIS) to the State Environmental Commission (SEC) and to determine whether a SBIS is required to be noticed and available at the public workshop. A SBIS must be completed and submitted to the Legislative Counsel Bureau for ALL adopted regulations.

Note: Small Business is defined as a "business conducted for profit which employs fewer than 150 full-time or part-time employees" (NRS 233B.0382).

To determine whether a SBIS must be noticed and available at the public workshop, answer the following questions:

1. Does this proposed regulation impose a direct and significant economic burden upon a small business? *(state yes or no. If no, please explain and submit the applicable documentation, which can also be addressed in #8 on the SBIS and simply referred to; and if yes, reference the attached SBIS)*

> *No. The proposed regulations are not likely to impose a direct and significant economic burden upon a small business. Water quality standards in of themselves do not directly regulate small businesses, although standards do form the basis for effluent limits imposed by NDEP through the National Pollutant Discharge Elimination System (NPDES) permit program and Clean Water Act Section 401 certification for any dredging or filling activity in Nevada waters. There are no current NPDES permits associated with small businesses for any of the waters affected by this regulation. Water quality standards already exist and the proposed revisions are not expected to adversely impact any future permit activities. NDEP strives to work with public agencies and industry to encourage economic growth while meeting water pollution control standards.*

2. Does this proposed regulation restrict the formation, operation or expansion of a small business? *(state yes or no. If no, please explain and submit the applicable documentation, which can also be addressed in #8 on the SBIS and simply referred to; and if yes, reference the attached SBIS)*

> *No. The proposed regulations do not restrict the formation, operation or expansion of a small business.*

If **Yes** to either of questions 1 & 2, a SBIS must be noticed and available at the public workshop.

FORM #4
SMALL BUSINESS IMPACT STATEMENT
(NRS 233B.0609)

1. Describe the manner in which comment was solicited from affected small businesses, a summary of the response from small businesses and an explanation of the manner in which other interested persons may obtain a copy of the summary. *(Attach copies of the comments received and copies of any workshop attendance sheets noting which are small businesses.)*

A rationale explaining the proposed changes to the water quality standards was prepared and distributed to a broad audience through email, the NDEP website, and at public workshops. Workshops to present the proposed changes and to solicit input were held in Carson City and Elko on May 19 and 21, 2014, respectively. Notices for these workshops were published in the Reno Gazette Journal, Nevada Appeal and Elko Free Press, distributed via email and posted on NDEP's website. See attached sign in sheets for attendees. No small businesses were in attendance. No written comments were received.

2. The manner in which the analysis was conducted (if an impact was determined).

Not applicable. The proposed regulations do not impose direct and significant impacts to small businesses.

3. The estimated economic effect of the proposed regulation on small businesses:

a. Both adverse and beneficial effects
b. Both direct and indirect effects

Not applicable. The proposed regulations do not impose direct and significant impacts to small businesses.

4. A description of the methods that the agency considered to reduce the impact of the proposed regulation on small businesses and a statement regarding whether the agency actually used any of the methods. *(Include a discussion of any considerations of the methods listed below.)*

A. Simplification of the proposed regulation
B. Establishment of different standards of compliance for a small business
C. Modification of fees or fines so that a small business is authorized to pay a lower fee or fine.

Not applicable. The proposed regulations do not impose direct and significant impacts to small businesses.

5. The estimated cost to the agency for enforcement of the proposed regulation. *(Include a discussion of the methods used to estimate those costs.)*

The proposed regulation changes will not affect the cost to the agency for enforcement.

6. If this regulation provides for a new fee or increases an existing fee, the total annual

amount the agency expects to collect and manner in which the money will be used.

No fees are proposed.

7. If the proposed regulation includes provisions which duplicate or are more stringent than federal, state or local standards regulating the same activity, provide an explanation of why the proposed regulation is duplicative or more stringent and why it is necessary.

The proposed regulations are not duplicative or more stringent than other water quality standards.

8. The reasons for the conclusions regarding the impact of a regulation on small businesses.

Water quality standards in of themselves do not directly regulate small businesses, although standards do form the basis for effluent limits imposed by NDEP through the National Pollutant Discharge Elimination System (NPDES) permit program and Clean Water Act Section 401 certification for any dredging or filling activity in Nevada waters There are no current NPDES permits associated with small businesses for any of the waters affected by this regulation. Water quality standards already exist and the proposed revisions are not expected to adversely impact any future permit activities; however, this would need to be evaluated on a case by case basis. NDEP strives to work with public agencies and industry to encourage economic growth while meeting water pollution control standards.

I certify that to the best of my knowledge or belief, a concerted effort was made to determine the impact of the proposed regulation on a small business and that the information contained in this statement is accurate.

Colleen Cripps, Ph.D.
Administrator, NDEP

6/27/14
Date

http://www.leg.state.nv.us/Statutes/77th2013/Stats201314.html#Stats201314page2304

Nevada Surface Water Quality Regulations

Rationale for 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
June 2014

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

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Rationale for 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

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."

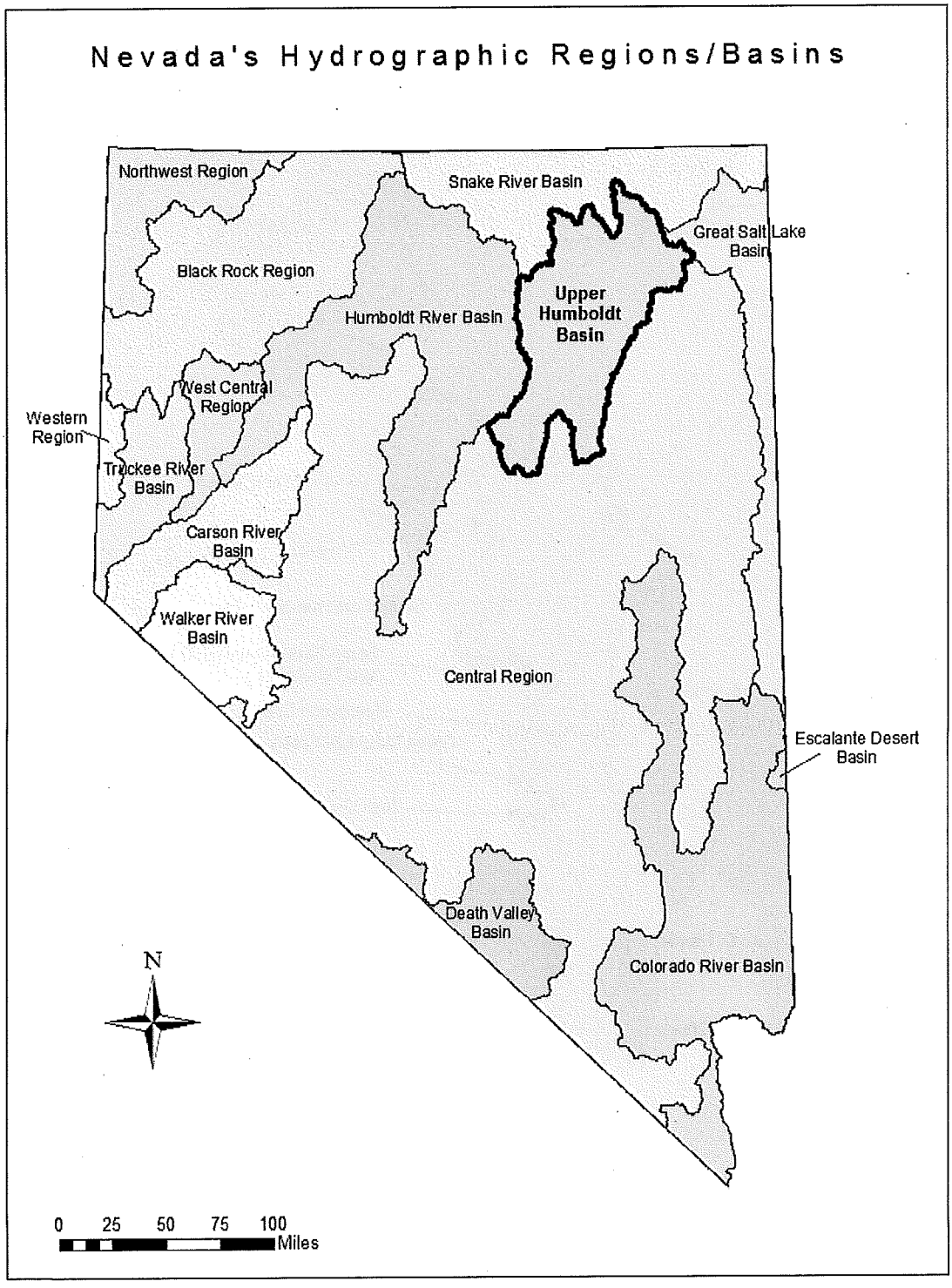

Figure 1. Upper Humboldt River Basin

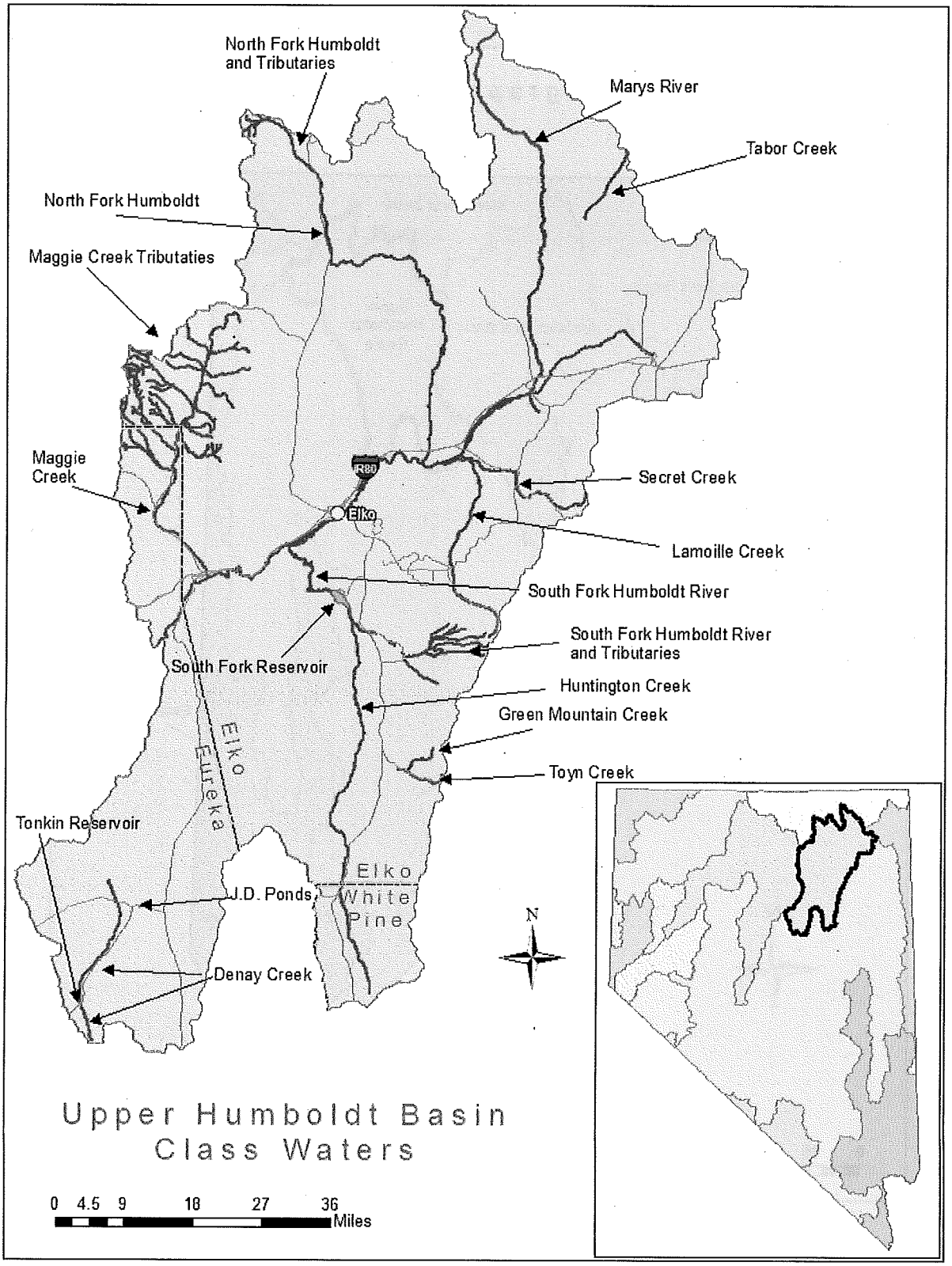

Figure 2 Former "Class Waters" in the Upper Humboldt River Basin

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 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

Water Body Name	Segment Description	Aquatic Species of Concern	Water Quality Standard NAC Reference	Former Class and Trout or Non-Trout designation
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

Water Body Name	Segment Description	Aquatic Species of Concern	Water Quality Standard NAC Reference	Former Class and Trout or Non-Trout designation
Tonkin Reservoir	The entire reservoir.	Trout	445A.1514	A – Trout
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 ~~the national forest boundary~~*Toyn Creek*	From its origin ~~to the national forest boundary~~*to its confluence with Toyn Creek.*		445A.1548	A – Trout
Toyn Creek *at Green Mountain Creek*	From its origin to ~~the national forest boundary~~*its confluence with Green Mountain Creek.*		445A.1554	A – Trout
~~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.	Trout	445A.15525	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.15525 ~~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. ≤ 250 mg/l"
- Alkalinity criterion of "S.V. ≥ 20 mg/l"
- TSS criterion of "S.V. ≤ 25 mg/l" for Trout Waters
  TSS criterion of "S.V. ≤ 80 mg/l" for Non-Trout Waters
- Turbidity criterion of "S.V. ≤ 10 NTU" for Trout Waters
  Turbidity criterion of "S.V. ≤ 50 NTU" for Non-Trout Waters
- Color criterion of "S.V. ≤ 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.

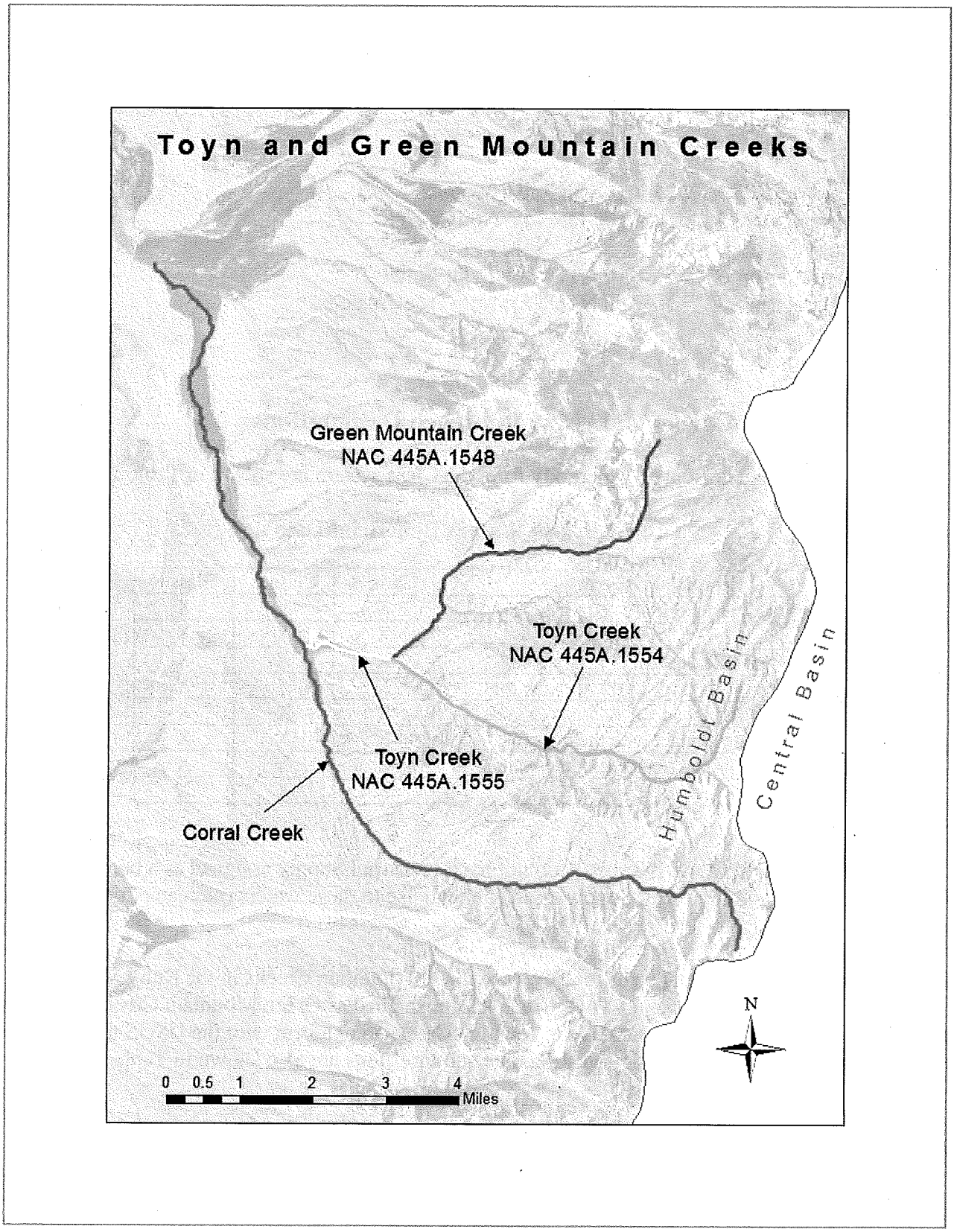

Figure 3 Corrections to Green Mountain and Toyn Creeks

Proposed Revisions to Numeric Criteria

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

- Temperature[1]
- pH
- Dissolved Oxygen (D.O.) [1]
- 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 $CaCO_3$
- 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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1. Class A, B and C Trout waters have a single value temperature criterion of $\leq$ 20°C.
Class B Non-Trout waters have a single value temperature criterion of $\leq$ 24°C.
Class C Non-Trout waters have a single value temperature criterion of $\leq$ 34°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 upon EPA Gold 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 EPA guidance (Ambient Aquatic Life Water Quality Criteria for Chloride, 1988), 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 $CaCO_3$ 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 ≤ 25 mg/l for Trout waters and ≤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 ≤ 10 NTU (nephlometric turbidity units) for Trout waters and ≤ 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 upon EPA Gold Book guidance, NDEP is proposing a single value color criteria of ≤ 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.

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.

USEPA 1986. Water Quality Criteria (Gold Book). EPA-440/9-76-023. USEPA, Washington DC.

USEPA 1988. Ambient Water Quality Criteria for Chloride – 1988. EPA-440/5-88-001. USEPA, Washington DC.