

Note:

The following changes have been made since the October draft version of this document:

- Old highway designations were updated in the reach references. These include:
 - o Near Austin, Old U.S. Highway 50 has been updated to Nevada State Route 722
 - o Near Ruth, State Highway 44 has been updated to State Highway 485
 - o In Washoe Valley, Highway Old 395 has been updated to State Route 429
- The following trout and nontrout waters were changed:
 - o Whites Creek (B) was changed from (T) to (T) & (N).
 - o Mason Valley Wildlife (C) area was changed from (T) to (T)& (N).
 - o Little Humboldt River (S Fork) (B) was changed from (T) to (N).
 - o Huntington Creek (B) was changed from (T) to (T)& (N).
 - o Denay Creek (B) was changed from (T) to (N).
 - o Maggie Creek (C) was changed from (T) to (T) & (N).
- North and South Forks of the Twin River (A) were changed to “From its origin to the first point of diversion, near the national forest boundary.” Instead of “From its origin to the first point of diversion, near the mouth of the canyon.”
- For Class A, B, and C waters, the TDS standard should have read “≤ 500 or one-third above that characteristic of natural conditions (whichever is less).” Instead of “≤ 500 or that characteristic of natural conditions (whichever is less).”
- The Birch Creek reach description was changed from “From the national forest boundary to the first diversion dam.” to “From the national forest boundary to the first diversion dam near the west line of section 1, T. 17 N., R. 44 E., M.D.B. & M.

**Rationale for Proposed Revisions to the
Nevada Water Pollution Control
Regulations
NAC 445A.124 - NAC 445A.127
Class Waters**



Prepared by:

**Nevada Division of Environmental Protection
Bureau of Water Quality Planning
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Nevada Water Pollution Control Regulations (NAC 445A.124 - NAC 445A.127) Class Waters

BACKGROUND

Under section 303 of the Clean Water Act and 40 CFR 131, States have responsibility for setting, reviewing and revising water quality standards. The following rationale discusses the review of the proposed changes to the water quality standards for the Class Waters, contained in the Nevada Administrative Code (NAC) 445A.124 through 445A.127.

The Class waters are generally the smaller streams and rivers, as opposed to the major rivers of the State like the Truckee, Carson, and Humboldt Rivers. Class waters include streams that exit the mountain ranges and are either siphoned off for irrigation or infiltrate into the playas. Class waters can also be tributaries to the major rivers, like the Little Humboldt, Reese Rivers and Steamboat Creek, or the lower portions of the rivers like the lower Humboldt and Carson Rivers

The Class waters are divided into four classes, A through D; class A being the highest quality water and class D being lower water quality. Each class has a definition, a set of beneficial uses, and a set of narrative and numeric standards. Therefore all waters in the same class have the same beneficial uses and the same water quality standards. Waterbodies for each class are listed in the NAC by county. Figure 1.0 shows all the class waters in the State by class.

The Nevada Division of Environmental Protection (NDEP) has reviewed the beneficial uses and water quality standards on the Class waters and has divided the review into a number of tasks. Only task A will be examined during this review, Tasks B through E are summarized in this rationale for discussion and may be considered in subsequent reviews of Class Waters. The Class waters review tasks include:

CURRENT REVIEW

- A. **Cleanup Of The Class Waters NAC** – There are various alterations and clarifications and corrections in the class waters NAC that should be addressed, also the tables can be reformatted to make them easier to understand.

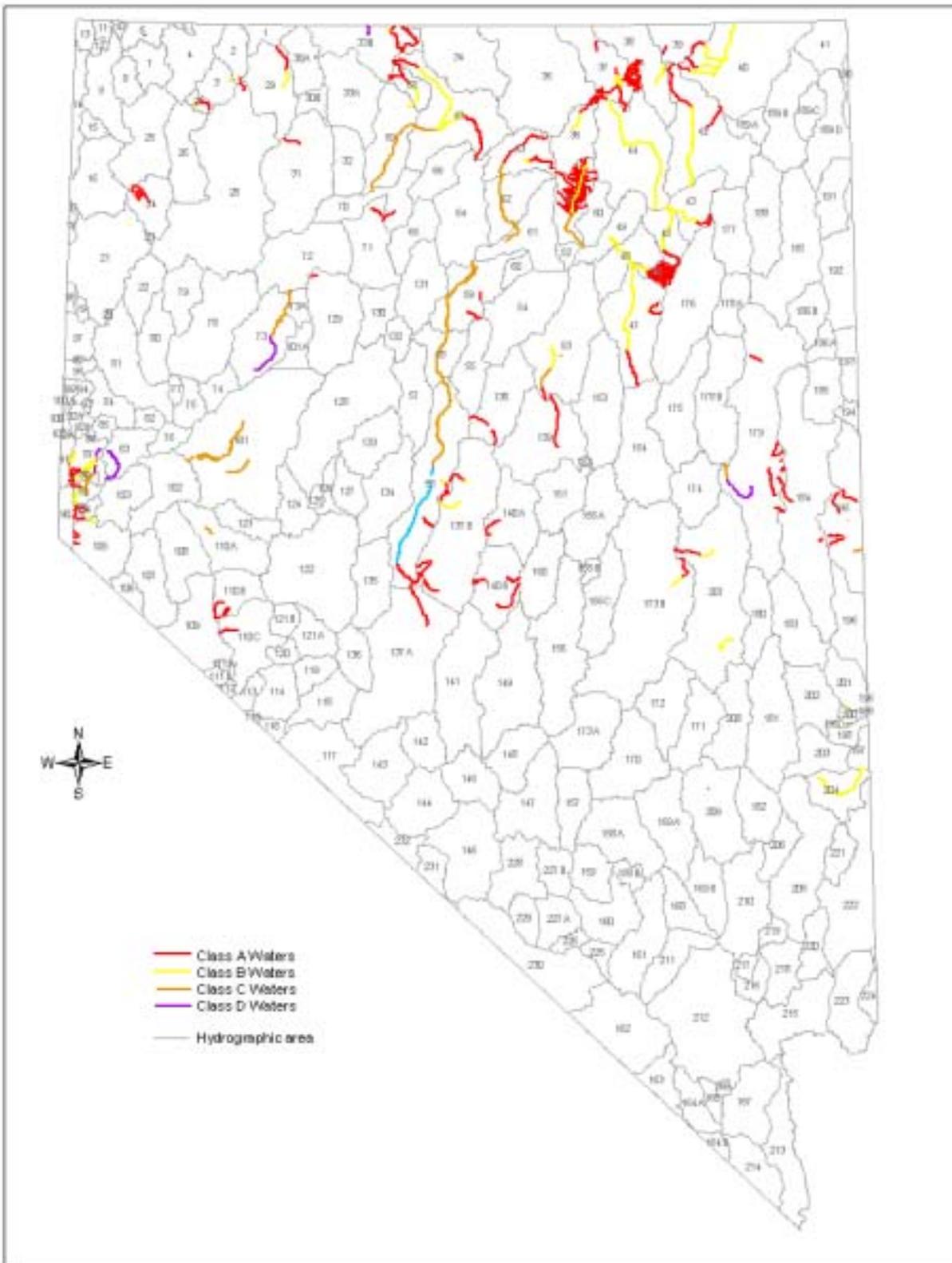
FUTURE REVIEW

- B. **Waters Not covered in the NAC** – There are numerous waters throughout the State that are not covered under NAC 445A.124 – 445A. 225, or by the tributary rule, NAC 445A.145 (1- 2). Adding new waters to the NAC will take many years, a blanket coverage will be discussed to protect unnamed waters for fishable – recreational uses.
- C. **Structure of standards** – NDEP is examining the basic structure and definitions of each class, to evaluate changing or adding standards or parameters. This examination includes adjusting the beneficial uses, definitions or moving the class waters over to the designated waters classification. This task will be detailed in a rational at a later date.

- D. **New Waters** – NDEP will develop a procedure for adding waters to the NAC. Waters may be added to the Class waters or the designated waters. This will be dependent on how task C develops. This task will be detailed in a rational at a later date.

- E. **RMHQs** – Task E is to evaluate the possibility of establishing antidegradation water quality standards or Requirements to Maintain Existing Higher Water Quality (RMHQs) on class waters. This task is also dependent on how task C develops. NDEP has contracted UNR to develop a statistical procedure for establishing RMHQs, this should be completed by the August of 2004. This task will be detailed in a rational at a later date.

Figure 1 Nevada Class Waters



CLASS WATERS

INTRODUCTION

As stated above, Class waters are divided into four classes, A through D; class A being the highest quality water and class D being lower water quality. Each class has a definition, a set of beneficial uses, and a set of narrative and numeric standards. The different classes are defined by land use and/or the extent of the influence by man's activity. The different definitions and beneficial uses are listed below for comparison between classes.

Definitions

Class A waters include 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 include 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 include 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.

Class D waters include waters or portions of waters located in areas of urban development, highly industrialized or intensively used for agriculture or a combination of all the above and where effluent sources include a multiplicity of waste discharges from the highly altered watershed.

Beneficial Uses

Class A

The beneficial uses of class A waters are municipal or domestic supply, or both, with treatment by disinfection only, aquatic life, propagation of wildlife, irrigation, watering of livestock, recreation including contact with the water and recreation not involving contact with the water.

Class B

The beneficial uses of class B water are municipal or domestic supply, or both, with treatment by disinfection and filtration only, irrigation, watering of livestock, aquatic life and propagation of wildlife, recreation involving contact with the water, recreation not involving contact with the water, and industrial supply.

Class C

The beneficial uses of class C water are municipal or domestic supply, or both, following complete treatment, irrigation, watering of livestock, aquatic life, propagation of wildlife, recreation involving contact with the water, recreation not involving contact with the water, and industrial supply.

Class D

The beneficial uses of class D waters are recreation not involving contact with the water, aquatic life, propagation of wildlife, irrigation, watering of livestock, and industrial supply except for food processing purposes.

CLEANUP OF THE CLASS WATERS NAC

The cleanup of the Class waters can be separated into four categories.

- Reformatting and updating
- Corrections
- Trout and nontrout Waters
- Point of first diversion -

Reformatting and updating

Reformatting

Reformatting the standard tables includes modifying and summarizing the tables, removing some of the repetitive language and moving some of the qualifiers into footnotes. For instance for temperature for Class A the following is proposed with additions as **[bold]** and deletions as ~~strikeout~~:

(g) Temperature.

~~Must not exceed [≤] 20°C. Allowable temperature increase above natural receiving water temperature: None. [ΔT = 0]~~

This reformatting and summarizing is to make the tables clearer and easier to understand. Also to be summarized are dissolved oxygen, total dissolved solids, fecal coliform, total phosphate, and pH.

Updates

Updates to the numeric standards for class waters are proposed for pH and Phosphorus.

pH

NDEP is proposing to revise the pH standard for Classes A, B and C. The current standard for pH is “ranging from 6.5 - 8.5”. NDEP is proposing to change the standard to 6.5 – 9.0. This will not only make the pH standards consistent with the designated waters, NAC445A.146 through NAC445A.225, but also consistent with EPA’s most recent national guidance criteria. The Gold Book Quality Criteria for Water (1986) recommends that pH range from 6.5 to 9.0 for the protection and propagation of aquatic life and wildlife.

PHOSPHORUS

NDEP Proposes to change the Class Waters total phosphate standard from total phosphate(s) to total phosphorus.

At present the Nevada water quality standards, NAC 445A.124 – 445A.225, has phosphorus water quality standards listed as:

- Total Phosphate,
- Total Phosphates,
- Total Phosphates (as P)
- Phosphates (PO₄)
- Total Phosphorus (as P)

To be consistent, NDEP is in the process of revising all the differing phosphorus water quality standards to Total Phosphorus (as P). These revisions will NOT change the phosphorus standard; it will only change the phosphate number to a phosphorus number. This will simplify the NAC by not having to differentiate between phosphate (PO₄) and phosphorus (P) standards.

To adjust the phosphate to phosphorus NDEP has multiplied the total phosphate(s) standard by 1/3. The molecular weight of phosphorus (30.97) is approximately 1/3 or 0.33 of total phosphate (94.85).

$$P = 30.97, O = 15.99, PO_4 = 94.85$$

$$P / PO_4 = 0.33$$

The protection will stay the same, although the total phosphorus number will be 1/3 of the current total phosphate number. Therefore a total phosphate(s) standard of 1.0 milligrams per liter (mg/l) will be changed to a total phosphorus (as P) standard of 0.33 mg/l. The proposed new standards for total phosphorus are shown in Table 01.

Table 01. Class Waters Phosphorus Standards

Class	Current Standard	Proposed Standard
Class A Total phosphate Total phosphorus (as P) (mg/l)	Must not exceed 0.15 mg/l in any stream at the point where it enters any reservoir or lake, nor 0.075 mg/l in any reservoir or lake, nor 0.30 mg/l in streams and other flowing waters.	≤ 0.05 ² ≤ 0.025 ² ≤ 0.10 ²
Class B Total phosphate Total phosphorus (as P) (mg/l)	Must not exceed 0.3 mg/l	≤ 0.1

Class	Current Standard	Proposed Standard
Class C Total phosphate Total phosphorus (as P) (mg/l)	Must not exceed 1.0 mg/l	≤ 0.33
Class D	-	-

² Must not exceed 0.05 mg/l in any stream at the point where it enters any reservoir or lake, nor 0.025 mg/l in any reservoir or lake, nor 0.10 mg/l in streams and other flowing waters.

SUMMARY

Complete listings of the reformatting and summarizing changes are shown below. The pages show the existing tables with the deletions shown in ~~strikeout~~ and the additions shown in **bold**. Following each page with the changes is a corrected page showing all the changes incorporated.

Table 02. Class A Water Quality Standards
 CLASS A TABLE SHOWING CHANGES.

NAC 445A.124 Class A waters: Description; beneficial uses; quality standards.

1. Class A waters include 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.

2. The beneficial uses of class A waters are municipal or domestic supply, or both, with treatment by disinfection only, aquatic life, propagation of wildlife, irrigation, watering of livestock, recreation including contact with the water and recreation not involving contact with the water.

3. The quality standards for class A waters are:

Item	Specifications
(a) Floating solids, sludge deposits, tastes or odor-producing substances.	None attributable to man's activities.
(b) Sewage, industrial wastes or other wastes.	None.
(c) Toxic materials, oils, deleterious substances, colored or other wastes.	None.
(d) Settleable solids.	Only amounts attributable to man's activities which will not make the waters unsafe or unsuitable as a drinking water source or which will not be detrimental to aquatic life or for any other beneficial use established for this class.
(e) pH. (pH units)	Range between 6.5 and to 8.5 9.0
(f) Dissolved oxygen (mg/l)	Must not be less than ≥ 6.0 milligrams/liter.
(g) Temperature ($^{\circ}\text{C}$) ΔT	Must not exceed ≤ 20 $^{\circ}\text{C}$. Allowable temperature increase above natural receiving water temperature: None. 0
(h) Fecal coliform. (No./100 ml)	The fecal coliform concentration, based on a minimum of 5 samples during any 30 day period, must not exceed a geometric mean of 200 per 100 milliliters nor may more than 10 percent of total samples during any 30 day period exceed 400 per 100 milliliters. $\leq 200/400$ ¹
(i) Total-phosphate: Phosphorus (as P) (mg/l)	Must not exceed 0.15 ≤ 0.05 mg/l in any a stream at the point where it enters any reservoir or lake, nor 0.075 ≤ 0.025 mg/l in any reservoir or lake, nor 0.30 ≤ 0.10 mg/l in streams and other flowing waters. ²
(j) Total dissolved solids (mg/l)	Must not exceed ≤ 500 mg/l or one-third above that characteristic of natural conditions (whichever is less).

¹ Must not exceed a geometric mean of 200 per 100 milliliters based on a minimum of 5 samples during any 30-day period, nor may more than 10 percent of total samples during any 30-day period exceed 400 per 100 ml.

² Must not exceed 0.05 mg/l in any stream at the point where it enters any reservoir or lake, nor 0.025 mg/l in any reservoir or lake, nor 0.10 mg/l in streams and other flowing waters.

REFORMATTED CLASS A TABLE WITH CHANGES INCORPORATED

NAC 445A.124 Class A waters: Description; beneficial uses; quality standards.

1. Class A waters include 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.
2. The beneficial uses of class A waters are municipal or domestic supply, or both, with treatment by disinfection only, aquatic life, propagation of wildlife, irrigation, watering of livestock, recreation including contact with the water and recreation not involving contact with the water.
3. The quality standards for class A waters are:

Item	Specifications
Floating solids, sludge deposits, tastes or odor-producing substances.	None attributable to man's activities.
Sewage, industrial wastes or other wastes.	None.
Toxic materials, oils, deleterious substances, colored or other wastes.	None.
Settleable solids.	Only amounts attributable to man's activities which will not make the waters unsafe or unsuitable as a drinking water source or which will not be detrimental to aquatic life or for any other beneficial use established for this class.
pH (pH units)	6.5 to 9.0.
Dissolved oxygen (milligrams/liter)	≥ 6.0
Temperature. (°C) ΔT	≤ 20 0
Fecal coliform. (No./100 ml)	≤ 200/400 ¹
Total Phosphorus (as P) (mg/l)	≤ 0.05 ² ≤ 0.025 ² ≤ 0.10 ²
Total dissolved solids (mg/l)	≤ 500 or one-third above that characteristic of natural conditions (whichever is less).

¹ Must not exceed a geometric mean of 200 per 100 milliliters based on a minimum of 5 samples during any 30-day period, nor may more than 10 percent of total samples during any 30-day period exceed 400 per 100 ml.

² Must not exceed 0.05 mg/l in any stream at the point where it enters any reservoir or lake, nor 0.025 mg/l in any reservoir or lake, nor 0.10 mg/l in streams and other flowing waters.

Table 03. Class B Water Quality Standards
 CLASS B TABLE SHOWING CHANGES.

NAC 445A.125 Class B waters: Description; beneficial uses; quality standards.

1. Class B waters include 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.

2. The beneficial uses of class B waters are municipal or domestic supply, or both, with treatment by disinfection and filtration only, irrigation, watering of livestock, aquatic life and propagation of wildlife, recreation involving contact with the water, recreation not involving contact with the water, and industrial supply.

3. The quality standards for class B waters are:

Item	Specifications
—(a) Floating solids, settleable solids or sludge deposits.	Only such amounts attributable to man's activities which will not make the waters unsafe or unsuitable as a drinking water source, injurious to fish or wildlife or impair the waters for any other beneficial use established for this class.
—(b) Sewage, industrial wastes or other wastes.	None which are not effectively treated to the satisfaction of the department.
—(c) Odor-producing substances.	Only such amounts which will not impair the palatability of drinking water or fish or have a deleterious effect upon fish, wildlife or any beneficial uses established for waters of this class.
—(d) Toxic materials, oil, deleterious substances, colored or other wastes, or heated or cooled liquids.	Only such amounts as will not render the receiving waters injurious to fish or wildlife or impair the receiving waters for any beneficial uses established for this class.
—(e) pH (pH units)	Range between 6.5 and to 8.5 9.0
—(f) Dissolved oxygen (mg/l) Trout (T) Nontrout waters (N)	For trout waters, not less than ≥ 6.0 milligrams/liter mg/l; for nontrout waters, not less than ≥ 5.0 milligrams/liter mg/l.
—(g) Temperature (°C) Trout (T) Nontrout waters (N) ΔT	Must not exceed $\leq 20^{\circ}\text{C}$ for trout waters (T) or $\leq 24^{\circ}\text{C}$ for nontrout waters (N). Allowable temperature increase above natural receiving water temperatures: None. 0
—(h) Fecal coliform. (No./100 ml)	The fecal coliform concentration, based on a minimum of 5 samples during any 30-day period, must not exceed a geometric mean of 200 per 100 milliliters, nor may more than 10 percent of total samples during any 30-day period exceed 400 per 100 milliliters. $\leq 200/400^1$
(i) Total phosphates Phosphorus (as P) (mg/l)	Must not exceed 0.3 ≤ 0.10 mg/l.
(j) Total dissolved solids (mg/l)	Must not exceed ≤ 500 mg/l or one-third above that characteristic of natural conditions (whichever is less).

¹ The fecal coliform concentration, based on a minimum of 5 samples during any 30-day period, must not exceed a geometric mean of 200 per 100 milliliters, nor may more than 10 percent of total samples during any 30-day period exceed 400 per 100 milliliters.

REFORMATTED CLASS B TABLE WITH CHANGES INCORPORATED

NAC 445A.125 Class B waters: Description; beneficial uses; quality standards.

1. Class B waters include 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.
2. The beneficial uses of class B waters are municipal or domestic supply, or both, with treatment by disinfection and filtration only, irrigation, watering of livestock, aquatic life and propagation of wildlife, recreation involving contact with the water, recreation not involving contact with the water, and industrial supply.
3. The quality standards for class B waters are:

Item	Specifications
Floating solids, settleable solids or sludge deposits.	Only such amounts attributable to man's activities which will not make the waters unsafe or unsuitable as a drinking water source, injurious to fish or wildlife or impair the waters for any other beneficial use established for this class.
Sewage, industrial wastes or other wastes.	None which are not effectively treated to the satisfaction of the department.
Odor-producing substances.	Only such amounts which will not impair the palatability of drinking water or fish or have a deleterious effect upon fish, wildlife or any beneficial uses established for waters of this class.
Toxic materials, oil, deleterious substances, colored or other wastes, or heated or cooled liquids.	Only such amounts as will not render the receiving waters injurious to fish or wildlife or impair the receiving waters for any beneficial uses established for this class.
pH (pH units)	6.5 to 9.0
Dissolved oxygen. (mg/liter.) Trout waters Nontrout waters	≥ 6.0 ≥ 5.0
Temperature (°C) Trout waters Nontrout waters ΔT	≤ 20 ≤ 24 0
Fecal coliform. (No./100 ml)	≤ 200/400 ¹
Total Phosphorus (as P) (mg/l)	≤ 0.10
Total dissolved solids (mg/l)	≤ 500 or one-third above that characteristic of natural conditions (whichever is less).

¹ Must not exceed a geometric mean of 200 per 100 milliliters based on a minimum of 5 samples during any 30-day period, nor may more than 10 percent of total samples during any 30-day period exceed 400 per 100 ml.

Table 04. Class C Water Quality Standards
 CLASS C TABLE SHOWING CHANGES.

NAC 445A.126 Class C waters: Description; beneficial uses; quality standards.

1. Class C waters include 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.

2. The beneficial uses of class C waters are municipal or domestic supply, or both, following complete treatment, irrigation, watering of livestock, aquatic life, propagation of wildlife, recreation involving contact with the water, recreation not involving contact with the water, and industrial supply.

3. The quality standards for class C waters are:

Item	Specifications
(a) Floating solids, solids that will settle or sludge deposits.	Only those amounts attributable to the activities of man which will not make the receiving waters injurious to fish or wildlife or impair the waters for any beneficial use established for this class.
(b) Sewage, industrial wastes or other wastes.	None which are not effectively treated to the satisfaction of the department.
(c) Toxic materials, oils, deleterious substances, colored or other wastes or heated or cooled liquids.	Only such amounts as will not render the receiving waters injurious to fish and wildlife or impair the waters for any beneficial use established for this class.
(d) pH (pH units)	Range between 6.5 and to 8.5 9.0
(e) Dissolved oxygen (mg/l)	For waters with trout, not less than Trout waters ≥ 6.0 mg/l; for waters without trout, not less than ≥ 5.0 mg/l.
(f) Temperature (°C)	Must not exceed ≤ 20°C ; for waters with trout or ≤ 34°C for waters without trout. Allowable temperature increase above normal receiving water temperature: 3°C.
(g) Fecal coliform. (No./100 ml)	The more stringent of the following apply: ≤ 1000/2400 ¹ ≤ 200/400 ² ≤ 200/400 ³
<p>(1) The fecal coliform concentration must not exceed a geometric mean of 1000 per 100 milliliters nor may more than 20 percent of total samples exceed 2400 per 100 milliliters.</p> <p>(2) The annual geometric mean of fecal coliform concentration must not exceed that characteristic of natural conditions by more than 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed that characteristic of natural conditions by more than 400 per 100 milliliters.</p> <p>(3) The fecal coliform concentration, based on a minimum of 5 samples during any 30-day period, must not exceed a geometric mean of 200 per 100 milliliters, nor may more than 10 percent of total samples during any 30-day period exceed 400 per 100 milliliters. This is applicable only to those waters used for primary contact recreation.</p>	
(h) Total phosphates-Phosphorus (as P) (mg/l)	Must not exceed 1.0 ≤ 0.33 mg/l.
(i) Total dissolved solids (mg/l)	Must not exceed ≤ 500 mg/l or one-third above that characteristic of natural conditions (whichever is less).

¹ **The fecal coliform concentration must not exceed a geometric mean of 1000 per 100 milliliters nor may more than 20 percent of total samples exceed 2400 per 100 milliliters.**

² **The annual geometric mean of fecal coliform concentration must not exceed that characteristic of natural conditions by more than 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed that characteristic of natural conditions by more than 400 per 100 milliliters.**

- ³ **The fecal coliform concentration, based on a minimum of 5 samples during any 30-day period, must not exceed a geometric mean of 200 per 100 milliliters, nor may more than 10 percent of total samples during any 30-day period exceed 400 per 100 milliliters. This is applicable only to those waters used for primary contact recreation.**

REFORMATTED CLASS C TABLE WITH CHANGES INCORPORATED

NAC 445A.126 Class C waters: Description; beneficial uses; quality standards.

1. Class C waters include 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.

2. The beneficial uses of class C waters are municipal or domestic supply, or both, following complete treatment, irrigation, watering of livestock, aquatic life, propagation of wildlife, recreation involving contact with the water, recreation not involving contact with the water, and industrial supply.

3. The quality standards for class C waters are:

Item	Specifications
Floating solids, solids that will settle or sludge deposits.	Only those amounts attributable to the activities of man which will not make the receiving waters injurious to fish or wildlife or impair the waters for any beneficial use established for this class.
Sewage, industrial wastes or other wastes.	None which are not effectively treated to the satisfaction of the department.
Toxic materials, oils, deleterious substances, colored or other wastes or heated or cooled liquids.	Only such amounts as will not render the receiving waters injurious to fish and wildlife or impair the waters for any beneficial use established for this class.
pH (pH units)	6.5 to 9.0
Dissolved oxygen. (mg/liter.)	
Trout	≥ 6.0
Nontrout	≥ 5.0
Temperature (°C)	
Trout (T)	≤ 20
Nontrout (N)	≤ 34
ΔT	ΔT = 3
Fecal coliform. (No./100 ml)	The more stringent of the following apply:
geometric mean	≤ 1000/2400 ¹
above natural conditions	≤ 200/400 ²
geometric mean	≤ 200/400 ³
Total Phosphorus (as P) (mg/l)	≤ 0.33
Total dissolved solids.	≤ 500 or one-third above that characteristic of natural conditions (whichever is less).

¹ The fecal coliform concentration must not exceed a geometric mean of 1000 per 100 milliliters nor may more than 20 percent of total samples exceed 2400 per 100 milliliters.

² The annual geometric mean of fecal coliform concentration must not exceed that characteristic of natural conditions by more than 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed that characteristic of natural conditions by more than 400 per 100 milliliters.

³ The fecal coliform concentration, based on a minimum of 5 samples during any 30-day period, must not exceed a geometric mean of 200 per 100 milliliters, nor may more than 10 percent of total samples during any 30-day period exceed 400 per 100 milliliters. This is applicable only to those waters used for primary contact recreation.

Table 05. Class D Water Quality Standards
 CLASS D TABLE SHOWING CHANGES.

NAC 445A.127 Class D waters: Description; beneficial uses; quality standards.

1. Class D waters include waters or portions of waters located in areas of urban development, highly industrialized or intensively used for agriculture or a combination of all the above and where effluent sources include a multiplicity of waste discharges from the highly altered watershed.
2. The beneficial uses of class D waters are recreation not involving contact with the water, aquatic life, propagation of wildlife, irrigation, watering of livestock, and industrial supply except for food processing purposes.
3. The quality standards for class D waters are:

Item	Specifications
(a) Floating solids, settleable solids or sludge deposits.	Only such amounts attributable to the activities of man which will not impair the receiving waters for any beneficial use established for this class.
(b) Sewage, industrial wastes or other wastes.	None which are not effectively treated to the satisfaction of the department.
(c) Toxic materials, oils, deleterious substances, colored or other wastes or heated or cooled liquid.	Only such amounts as will not impair the receiving waters for any beneficial use established for this class.
(d) pH (pH units)	Range between 6.0 and to 9.0.
(e) Dissolved oxygen (mg/l)	Not less than ≥ 3.0.

REFORMATTED CLASS D TABLE WITH CHANGES INCORPORATED

NAC 445A.127 Class D waters: Description; beneficial uses; quality standards.

1. Class D waters include waters or portions of waters located in areas of urban development, highly industrialized or intensively used for agriculture or a combination of all the above and where effluent sources include a multiplicity of waste discharges from the highly altered watershed.
2. The beneficial uses of class D waters are recreation not involving contact with the water, aquatic life, propagation of wildlife, irrigation, watering of livestock, and industrial supply except for food processing purposes.
3. The quality standards for class D waters are:

Item	Specifications
Floating solids, settleable solids or sludge deposits.	Only such amounts attributable to the activities of man which will not impair the receiving waters for any beneficial use established for this class.
Sewage, industrial wastes or other wastes.	None which are not effectively treated to the satisfaction of the department.
Toxic materials, oils, deleterious substances, colored or other wastes or heated or cooled liquid.	Only such amounts as will not impair the receiving waters for any beneficial use established for this class.
pH (pH units)	6.0 to 9.0.
Dissolved oxygen. (mg/l)	≥ 3.0.

Corrections

NDEP proposes to correct various omissions or errors in the class waters tables. For instance some reaches are listed in the wrong county, or are listed in only one county when they occur in two counties. NDEP proposes to list the correct county and list the water in both counties. Some of the reaches are also misnamed and NDEP proposes to rename those reaches.

Also a few of the reaches are listed in the wrong Hydrographic region or Hydrographic area. These corrections are also noted below.

The reach corrections are summarized in Table 06. The table shows the reach descriptions, the existing listing, the corrections for the reaches, and comments on the changes. The deletions are shown as ~~strikeouts~~ and the additions are shown in **bold**. Figures 2 through 5 are maps illustrating some of the corrections.

Table 06. Reach Corrections

REACH	EXISTING	CORRECTIONS	COMMENTS
LITTLE HUMBOLDT RIVER (SOUTH FORK)			
CLASS A			
Little Humboldt River (South Fork)	Humboldt County – From its origin to Elko-Humboldt county line.	Elko County – From its origin to Elko-Humboldt county line.	This Reach exists entirely in Elko County, move reference from Humboldt County to Elko County (Figure 2)
NIGGER CREEK			
CLASS A			
Nigger Creek Negro Creek	Washoe County From its origin to the first irrigation diversion.	Washoe County From its origin to the first irrigation diversion.	The Creek is listed as Negro Creek on all current USGS and NDOT maps

ROCK CREEK			
CLASS A			
Rock Creek	Lander County – From its origin to Squaw Valley Ranch.	Elko County – From its origin to Squaw Valley Ranch.	This reach of Rock Creek exists only in Elko County (Figure 3)
CLASS C			
Rock Creek	-	Elko County – Below Squaw Valley Ranch.	Reach exists in Lander, Eureka and Elko Counties should be listed in all. (Figure 3)
Rock Creek	-	Eureka County – Below Squaw Valley Ranch.	Reach exists in Lander, Eureka and Elko Counties should be listed in all. (Figure 3)

JACK CREEK			
CLASS A			
Jack Creek	Elko County - From its origin to the north line of T. 41 N., R. 52 E., M.D.B. & M.	Elko County From its origin to the north line of T. 41 N., R. 52 E., M.D.B. & M. to its confluence with Harrington Creek.	Jack Creek stops at the confluence with Harrington Creek, before it reaches the north line of T. 41 N., R. 52 E., M.D.B. & M. (Figure 4)

CLASS B			
Jack Creek Harrington Creek	Elko County - From the north line of T. 41 N., R. 52 E., M.D.B. & M. to South Fork Owyhee River.	Elko County – From it's confluence with Jack Creek to the south fork of the Owyhee River	Jack Creek stops at confluence with Harrington Creek. Harrington Creek continues to the S.F. of the Owyhee River. (Figure 4)

REACH	EXISTING	CORRECTIONS	COMMENTS
STARR CREEK			
CLASS A			
Starr Creek	Elko County From it's origin to the National Forest Boundary	Remove	There is no Starr Creek on Forest Service Land. (Figure 5)
Starr Creek	Elko County From the National Forest Boundary to the Humboldt River	Elko County From the confluence of Ackler and Herder Creeks to the Humboldt River	There is no Starr Creek until the confluence of Ackler and Herder Creeks (Figure 5)

MUDDY RIVER			
CLASS C			
Muddy River	Clark County— Muddy (Moapa) River— From its origin (but not including source springs) to its confluence with Lake Mead.	Remove	Muddy River is part of the designated waters. NAC445A.210 to NAC445A.211

MAGGIE CREEK			
CLASS C			
Maggie Creek	-	Eureka County From it's confluence with Jack Creek to the Humboldt River	Reach exists in both Eureka and Elko Counties should be listed in both. (Figure 6)

WILLOW RESERVOIR			
CLASS C			
Willow Reservoir	White Pine County— The Entire Reservoir	Remove	Dam was removed in 1972, due to unsafe conditions; there is no Willow Reservoir.

Figure 2 South Fork Little Humboldt River

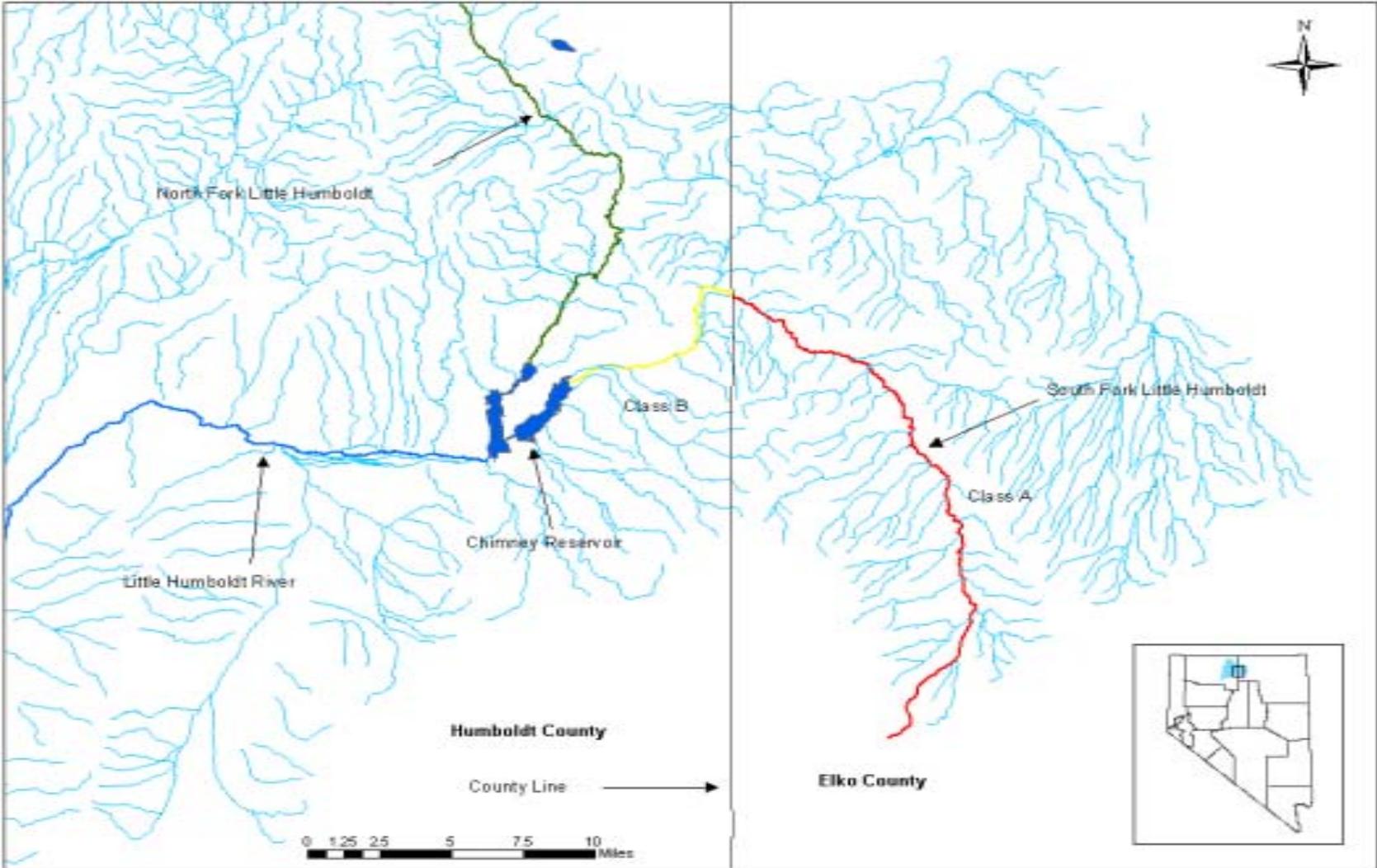


Figure 3 Rock Creek

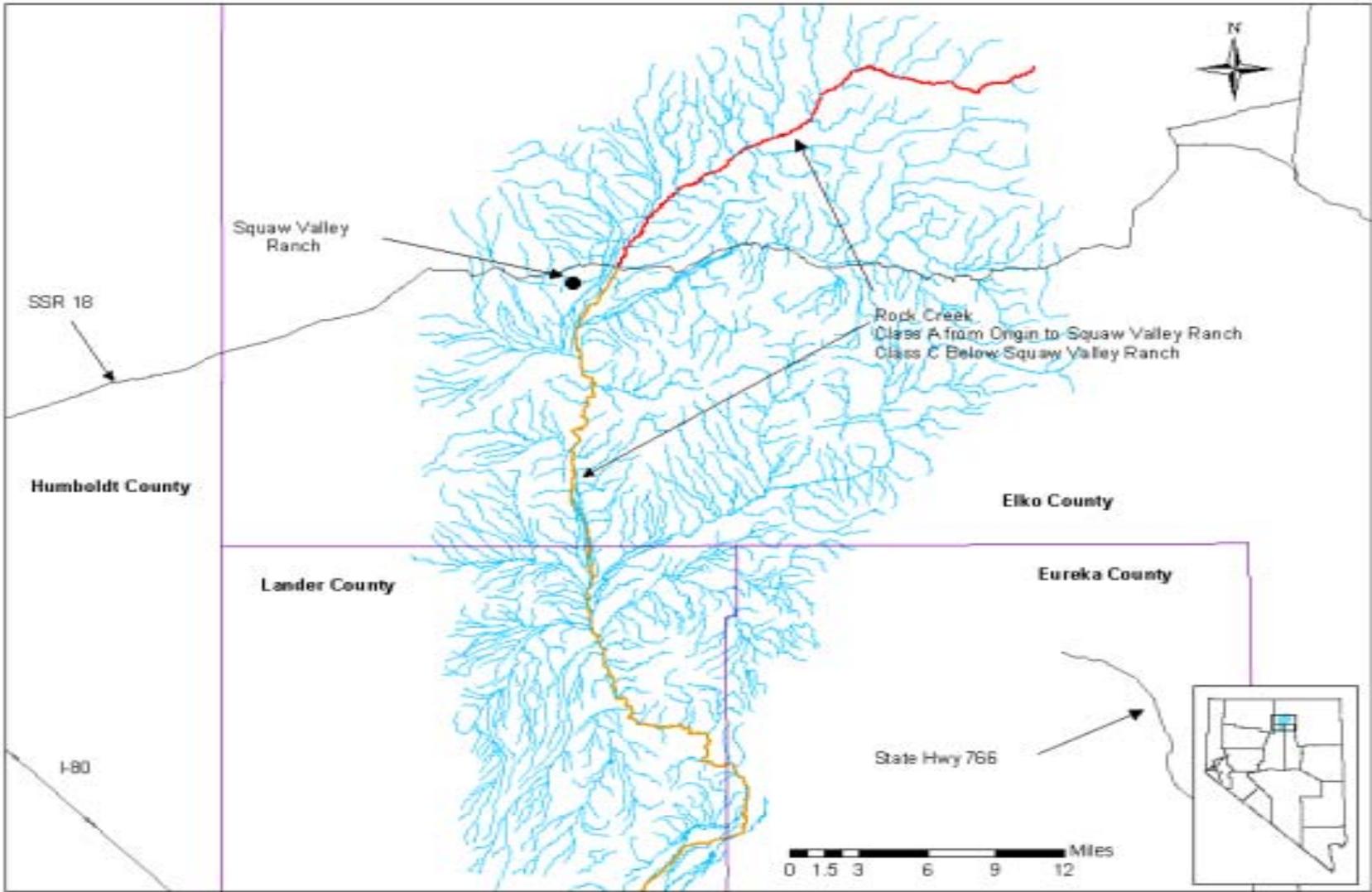


Figure 4 Jack and Harrington Creeks

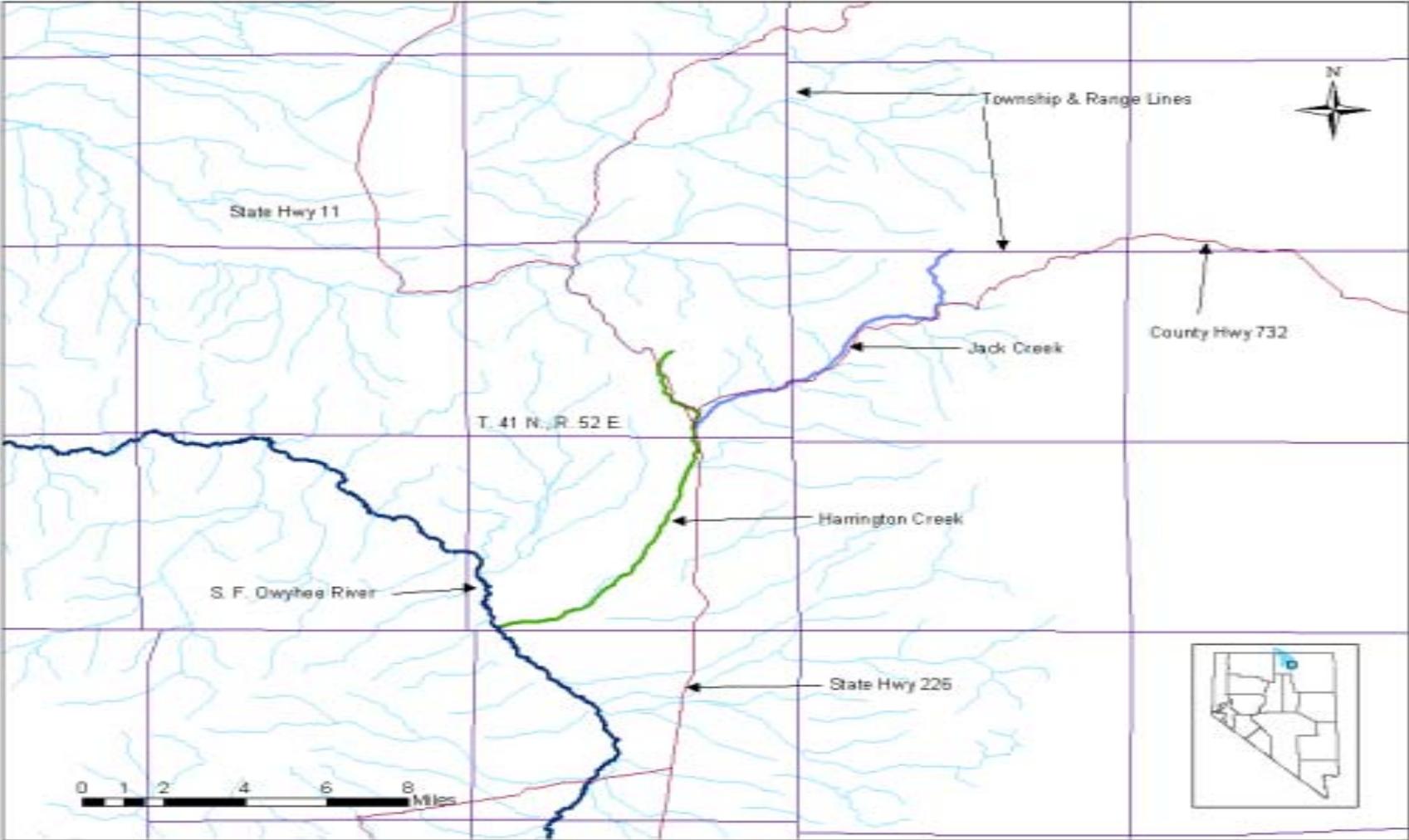


Figure 5 Starr Creek

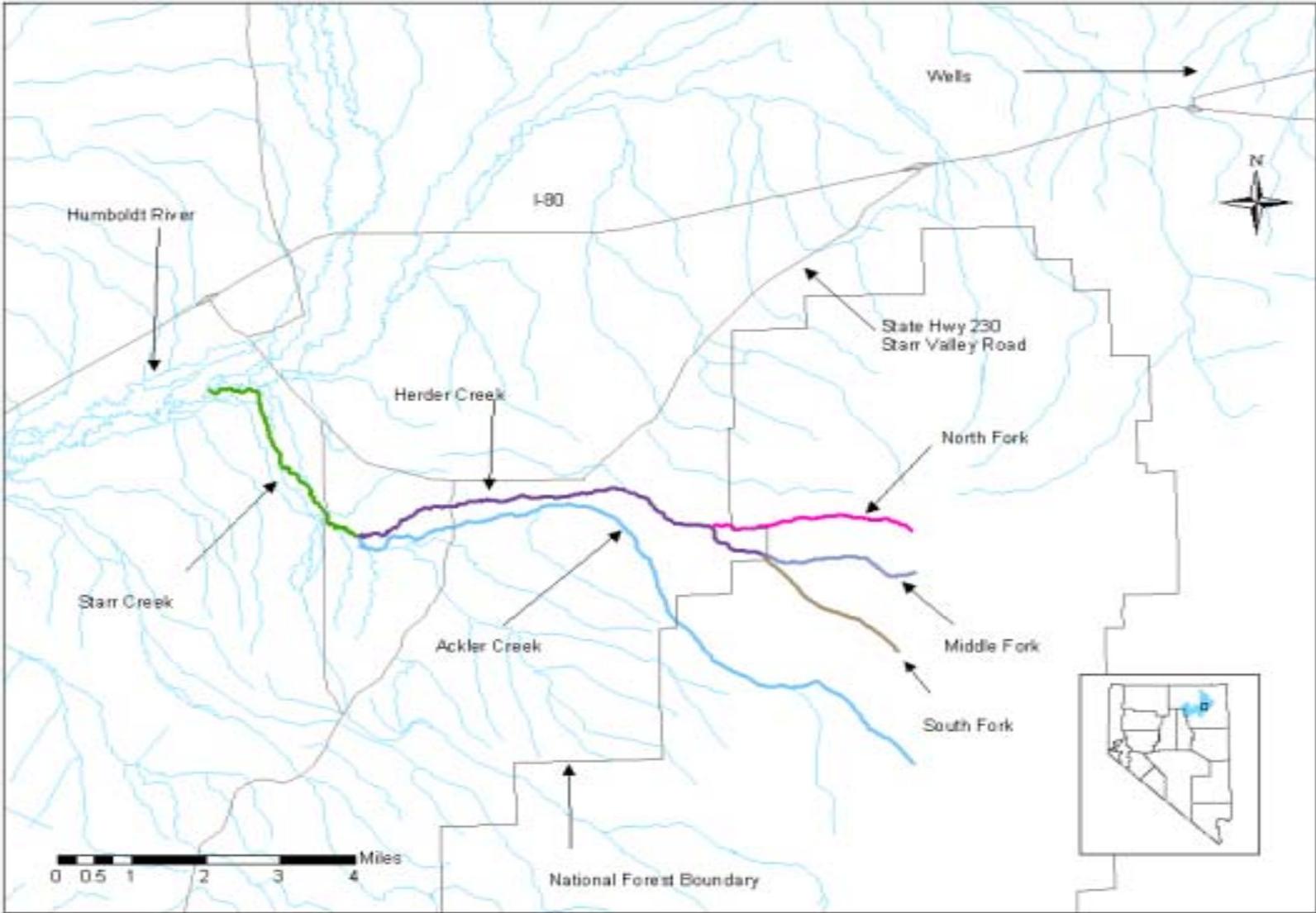
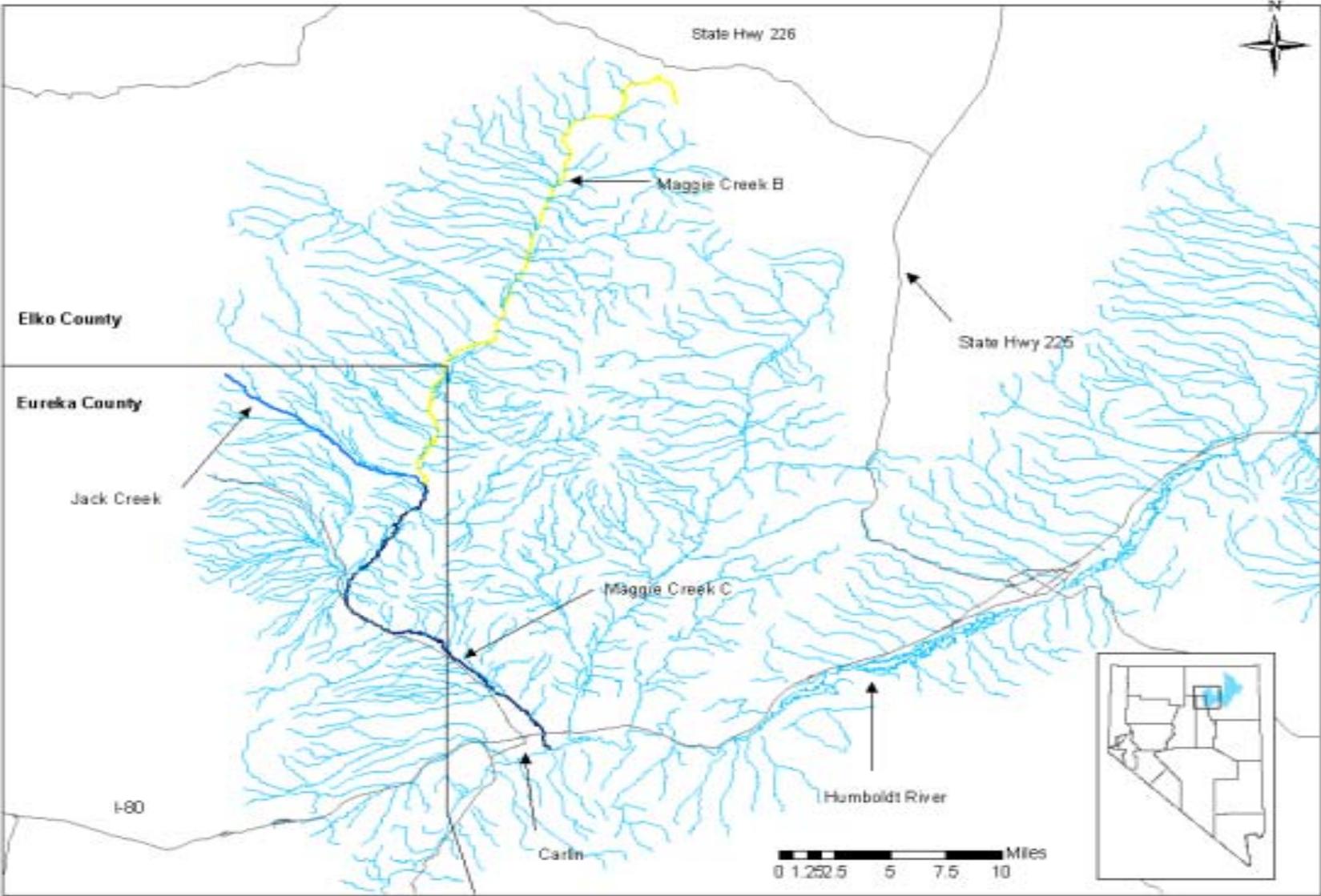


Figure 6 Maggie Creek



The NAC lists waterbodies for each class by county. The NAC lists the water name, the hydrographic region (HR), the hydrographic area (HA) and a description of the area classified, as shown below.

CARSON CITY

Water	HR	HA	Description of Area Classified
Ash Canyon	8	104	From its origin to the first point of diversion of the Carson City water department, near the west line of section 12, T. 15 N., R. 19 E.
Clear Creek	8	104	From its origin to gaging station number 10-3105 located in NE 1/4 NE 1/4, section 1, T. 14 N., R. 19E., M.D.B. & M.
Kings Canyon	8	104	From its origin to the point of the diversion of the Carson City water department, near the east line of section 23, T. 15 N., R. 19 E.

A few of the hydrographic regions or areas are incorrect. Each reach was located and compared to the region and area to verify location. Table 07 shows the corrections for the hydrographic regions and areas.

Table 07. Hydrographic Region and Area Corrections

Reach	County	Hydrographic Region	Hydrographic Area
Class A			
Jack Creek	Elko	3	37 36
Pole Canyon Creek	Elko	3 10	37, 176
Martin Creek	Humboldt	4	68, 69
Quinn River	Humboldt	2	28, 29, 30, 33
Hunter Creek	Washoe	6	91 87
Class B			
Humboldt River (S. Fork)	Elko	4	46, 48, 49
Quinn River	Humboldt	2	28, 29, 30, 33
Reese River	Lander	4	56, 58, 59
Franktown Creek	Washoe	4 6	89
Hunter Creek	Washoe	6	91 87
Class C			
Little Humboldt River	Humboldt	4	67, 69
Mason Valley Wildlife Area	Lyon County	9	109 108

Steamboat Creek	Washoe	6	-87, 88, 89
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Trout and Nontrout waters

The numeric standards for Class B and C list two dissolved oxygen (D.O.) and temperature standards, one for trout waters and another for nontrout waters. For both class B and C waters, the dissolved oxygen standard is ≥ 6 mg/l for trout waters and ≥ 5 mg/l for nontrout waters. For both classes the temperature standard for trout waters is ≤ 20 °C. For Class B nontrout waters, the temperature standard is ≤ 24 °C, while for the Class C nontrout waters the temperature standard is ≤ 34 °C.

When trying to identify applicable temperature and D.O. standards to a reach, it is difficult to know which to apply. NDEP is proposing to use an identifier in the list of waters to identify trout and non-trout waters. The designations for trout and nontrout waters were generated through Nevada Division of Wildlife (NDOW) publications and contacts with NDOW. The table below identifies the waters for class B and C as trout (T) or nontrout (N) waters.

In some cases, a reach may have trout in a upper section and no trout in a lower section of the same reach, for instance the North Fork of the Humboldt River. The table below will show these reaches as having both trout and nontrout waters. NDEP will address these instances at a later date, possibly splitting the reach into a trout reach and a nontrout reach.

Table 08. Trout and Nontrout Waters

Class B Waters

HR-Hydrographic region
HA-Hydrographic area

(T) = Trout Water
(N) = Nontrout Water

CARSON CITY

Water		HR	HA	Description of Area Classified
Clear Creek	(T)	8	104	From gaging station number 10-3105 located in the NE 1/4 NW 1/4, section 1, T. 14 N., R. 19 E., M.D.B. & M. to the Carson River.

ELKO COUNTY

Water		HR	HA	Description of Area Classified
Bull Run Reservoir	(T)	3	35	The entire reservoir.
Camp Creek	(T)	3	40	From the national forest boundary to its confluence with the south fork of Salmon Falls Creek.
Canyon Creek	(T)	3	40	From the national forest boundary to its confluence with the south fork of

Water		HR	HA	Description of Area Classified
Cottonwood Creek	(T)	3	40	Salmon Falls Creek. From the national forest boundary to its confluence with the south fork of Salmon Falls Creek.
Green Mountain Creek	(T)	4	47	From the national forest boundary to its confluence with Corral Creek.
Humboldt River (N. Fork)	(T) (N)	4	44	From the national forest boundary to its confluence with the Humboldt River.
Humboldt River (S. Fork)	(T)	4	46	From Lee to its confluence with the Humboldt River.
Huntington Creek	(T) (N)	4	47	From White Pine county line to confluence with South Fork Humboldt River.
Jack Creek	(T)	3	36	From the north line of T. 41 N., R. 52 E., M.D.B. & M. to South Fork Owyhee River.
Lamoille Creek	(N)	4	45	From gaging station number 10-316500 located in the NE 1/4, section 6, T. 32 N., R. 58 E., M.D.B. & M. to its confluence with the Humboldt River.
Maggie Creek	(T)	4	51	From where it is formed by tributaries to its confluence with Jack Creek.
Mary's River	(T) (N)	4	42	From the east line of T. 42 N., R. 59 E., M.D.B. & M. to its confluence with the Humboldt River.
Ruby Marsh	(T)	10	176	The entire area.
Salmon Falls Creek (N. Fork)	(T)	3	40	From the national forest boundary to its confluence with the south fork of Salmon Falls Creek.
Salmon Falls Creek (S. Fork)	(T)	3	40	From the national forest boundary to its confluence with the north fork of Salmon Falls Creek.
76 Creek	(T)	3	38	Its entire length.
Secret Creek	(T)	4	43	From the national forest boundary to the Humboldt River.
Starr Creek	(T)	4	43	From the national forest boundary to the Humboldt River.
Wildhorse Reservoir	(T)	3	37	The entire reservoir.
Willow Creek Reservoir	(T)	4	63	The entire reservoir.
Wilson Reservoir	(T)	3	35	The entire reservoir.

EUREKA COUNTY

Water		HR	HA	Description of Area Classified
Denay Creek	(N)	4	53	Below Tonkin Reservoir.
Fish Springs Pond	(T)	10	155	The entire pond.
Roberts Creek	(N)	10	139	Below Roberts Creek Reservoir.

HUMBOLDT COUNTY

Water		HR	HA	Description of Area Classified
Bilk Creek	(T)	2	29	From its intersection with the south line of section 35, T. 45 N., R. 32 E., M.D.B. & M. to Bilk Creek Reservoir.
Bilk Creek Reservoir	(T)	2	29	The entire reservoir.
Knott Creek Reservoir	(T)	1	3	The entire reservoir.
Little Humboldt River (N. Fork)	(N)	4	67	From the national forest boundary to its confluence with the south fork of the Little Humboldt River.
Little Humboldt River (S. Fork)	(N)	4	67	From the Elko-Humboldt county line to its confluence with the north fork of the Little Humboldt River.
Martin Creek	(T)	4	68, 69	From the national forest boundary downstream to the first diversion in T. 42 N., R. 40 E., M.D.B. & M.
Onion Valley Reservoir	(T)	1	2	The entire reservoir.
Quinn River	(T)	2	28, 29, 30, 33	From the point of confluence of the east fork and south fork to the Ft. McDermitt Indian Reservation diversion dam.
Summit Lake	(T)	2	27	The entire lake.

LANDER COUNTY

Water		HR	HA	Description of Area Classified
Big Creek	(T)	4	56	From the east boundary of the United States Forest Service Big Creek Campground to the first diversion dam.
Birch Creek	(T)	10	137	From the national forest boundary to the first diversion dam.
Groves Lake	(T)	10	137	The entire lake.
Iowa Canyon Reservoir	(T)	4	55	The entire reservoir.
Kingston Creek	(T)	10	137	Below Groves Lake.
Reese River	(T)	4	56, 58, 59	From its confluence with Indian Creek to old U.S. Highway 50.
Willow Creek Reservoir	(T)	10	131	The entire reservoir.

LINCOLN COUNTY

Water		HR	HA	Description of Area Classified
Clover Creek	(T)	13	204	From its origin to the point where it crosses the east range line of T. 4 S., R. 67 E., M.D.B. & M.
Eagle Valley Creek	(T)	13	200, 201	From its headwaters to Eagle Valley Reservoir.
Eagle Valley Reservoir	(T)	13	201	The entire reservoir.

NYE COUNTY

Water		HR	HA	Description of Area Classified
Adams McGill Reservoir	(N)	13	207	The entire reservoir.
Currant Creek	(N)	10	173	From the national forest boundary to Currant.
Dacey Reservoir	(N)	13	207	The entire reservoir.
Hay Meadow Reservoir	(T)	13	207	The entire reservoir.
Reese River	(T)	4	56	From its confluence with Indian Creek to old U.S. Highway 50.
Sunnyside Creek	(N)	13	207	From its origin to the Adams McGill Reservoir.

WASHOE COUNTY

Water		HR	HA	Description of Area Classified
Davis Lake	(T)	6	89	The entire lake.
Franktown Creek	(T)	4	89	From the first irrigation diversion to Washoe Lake.
Galena Creek	(T)	6	88	From the east line of section 18, T. 17 N., R. 19 E., M.D.B. & M. to gaging station number 10-348900 located in the SW 1/4 SW 1/4, section 2, T. 17 N., R. 19 E., M.D.B. & M.
Hobart Reservoir and Tributaries	(T)	6	89	The entire system.
Hunter Creek	(T)	6	91	From Hunter Lake to its confluence with the Truckee River.
Ophir Creek	(T)	6	89	From old U.S. Highway 395 to Washoe Lake.
Squaw Creek Reservoir	(T)	2	21	The entire reservoir.
Wall Canyon Reservoir	(T)	1	16	The entire reservoir.
White's Creek	(T) (N)	6	87	Below the east line of section 33, T. 18 N., R. 19 E., M.D.B. & M.

WHITE PINE COUNTY

Water		HR	HA	Description of Area Classified
Cave Lake	(T)	10	179	The entire lake.
Illipah Reservoir	(T)	10	174	The entire reservoir.
Silver Creek Reservoir	(T)	11	195	The entire reservoir.
White River	(T)	13	207	From the national forest boundary to its confluence with Ellison Creek.

Class C Waters

HR-Hydrographic region
HA-Hydrographic area

(T) = Trout Water
(N) = Nontrout Water

CHURCHILL COUNTY

Water		HR	HA	Description of Area Classified
Diagonal Drain	(N)	8	101	Its entire length.
Harmon Reservoir	(N)	8	101	The entire reservoir.
Indian Lakes	(N)	8	101	All the lakes, including Upper Lake, Likes Lake, Papoose Lake, Big Indian Lake, Little Cottonwood Lake, Big Cottonwood Lake and East Lake.
Lower Carson River	(N)	8	101	From Lahontan Reservoir to Carson Sink (the natural channel).
Rattlesnake Reservoir	(N)	8	101	Also known as S-Line Reservoir, the entire reservoir.
South Carson Lake	(N)	8	101	Also known as Government Pasture or the Greenhead Gun Club, the entire lake.
Stillwater Marsh	(N)	8	101	All that area of Stillwater Marsh east of Westside Road and north of the community of Stillwater.
V-Line Canal	(N)	8	101	From the Carson diversion dam to its division into the S & L Canals.

CLARK COUNTY

Water		HR	HA	Description of Area Classified
Bowman Reservoir	(N)	13	220	The entire reservoir.
Muddy (Moapa) River	(N)	13	219	From its origin (but not including source springs) to its confluence with Lake Mead.

ELKO COUNTY

Water		HR	HA	Description of Area Classified
Maggie Creek	(T) (N)	4	51	From its confluence with Jack Creek to the Humboldt River.

ESMERALDA COUNTY

Water		HR	HA	Description of Area Classified
January 04			30	

Fish Lake	(N)	10	117	The entire lake.
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EUREKA COUNTY

Water		HR	HA	Description of Area Classified
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J.D. Ponds	(N)	4	53	The entire area.
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HUMBOLDT COUNTY

Water		HR	HA	Description of Area Classified
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Little Humboldt River	(N)	4	67	Its entire length.
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LANDER COUNTY

Water		HR	HA	Description of Area Classified
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Reese River	(N)	4	56, 58, 59	North of old U.S. Highway 50.
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Rock Creek	(T) (N)	4	61, 62, 63	Below Squaw Valley Ranch.
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LINCOLN COUNTY

Water		HR	HA	Description of Area Classified
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Echo Canyon Reservoir	(T)	13	199	The entire reservoir.
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Nesbitt Lake	(N)	13	209	The entire lake.
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Pahranagat Reservoir	(N)	13	209	The entire reservoir.
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Schroeder Reservoir	(T)	13	222	The entire reservoir.
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LYON COUNTY

Water		HR	HA	Description of Area Classified
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Mason Wildlife Area	(T) (N)	9	109	All surface water impoundments.
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MINERAL COUNTY

Water		HR	HA	Description of Area Classified
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Weber Reservoir	(N)	9	110	Entire reservoir.
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PERSHING COUNTY

Water		HR	HA	Description of Area Classified
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Humboldt River	(N)	4	73	From Woolsey to Rodgers Dam.
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STOREY COUNTY

Water		HR	HA	Description of Area Classified
Tracy Pond	(T)	6	83	The entire area.

WASHOE COUNTY

Water		HR	HA	Description of Area Classified
Galena Creek	(T)	6	88	From gaging station number 10-348900 located in the SW 1/4, SW 1/4, section 2, T. 17 N., R. 19 E., M.D.B. & M., to its confluence with Steamboat Creek.
Steamboat Creek	(N)	6	87, 88, 89	From Little Washoe Lake to gaging station number 10-349300 located in the S 1/2, section 33, T. 18 N., R. 20 E., M.D.B. & M.
Washoe Lakes	(N)	6	89	The entire lakes.

WHITE PINE COUNTY

Water		HR	HA	Description of Area Classified
Comins Reservoir	(T)	10	179	The entire reservoir.
Gleason Creek	(N)	10	179	From its origin to State Highway 44.
Snake Creek	(T)	11	195	From control point above fish hatchery to the Nevada-Utah state line.
Willow Reservoir		40	179	The entire reservoir.

Point of first diversion

For many of the Class A waters and a few of the Class B waters, the reach designations are referenced to the *point of first diversion*. For example, the reach descriptions for Franktown Creek class A and B are:

Water	HR	HA	Description of Area Classified
Class A			
Franktown Creek	6	89	From its origin to the first irrigation diversion.
Class B			
Franktown Creek	4	89	From the first irrigation diversion to Washoe Lake.

By using State Water Resources files NDEP has identified the locations of first diversion and proposes adding a descriptor to the point of first diversion. For example, the reach descriptions for Franktown Creek class A and B would be changed to:

Water	HR	HA	Description of Area Classified
Class A			
Franktown Creek	6	89	From its origin to the first irrigation diversion near the north line of section 9, T. 16 N., R. 19 E.
Class B			
Franktown Creek	4	89	From the first irrigation diversion near the north line of section 9, T. 16 N., R. 19 E. to Washoe Lake.

Below are the “point of first diversion” waters listed for Class A and Class B waters. A descriptor was added to all point of first diversion waters, giving reference line, a section or township line, near the actual point of first diversion.

Table 09. Point of First Diversion Waters

HR-Hydrographic region
HA-Hydrographic area

Class A Waters

CARSON CITY

Water	HR	HA	Description of Area Classified	Corrections
Ash Canyon	8	104	From its origin to the first point of diversion of the Carson City water department.	From its origin to the first point of diversion of the Carson City water department, near the west line of section 12, T. 15 N., R. 19 E.

Water	HR	HA	Description of Area Classified	Corrections
Kings Canyon	8	104	From its origin to the point of the diversion of the Carson City water department.	From its origin to the first point of diversion of the Carson City water department, near the east line of section 23, T. 15 N., R. 19 E.

DOUGLAS COUNTY

Water	HR	HA	Description of Area Classified	Corrections
Genoa Creek	8	105	From its origin to the first diversion box at the mouth of the canyon.	From its origin to the first diversion box at the mouth of the canyon near the east line of section 9, T. 13 N., R. 19 E.
Sierra Canyon Creek	8	105	From its origin to the first diversion structure at the mouth of the canyon.	From its origin to the first diversion structure at the mouth of the canyon near the east line of section 4, T. 13 N., R. 19 E.

ELKO COUNTY

Water	HR	HA	Description of Area Classified	Corrections
Bear Creek	3	39	From its origin to the point of diversion for the Jarbidge municipal water supply.	From its origin to the point of diversion for the Jarbidge municipal water supply near the east line of section 17, T. 46 N., R. 58 E.
Brown's Gulch	3	37	From its origin to the point of diversion for the Mountain City municipal water supply.	From its origin to the point of diversion for the Mountain City municipal water supply near the south line of section 24, T. 46 N., R. 53 E.

HUMBOLDT COUNTY

Water	HR	HA	Description of Area Classified	Corrections
Bottle Creek	2	31	From its origin to the first point of diversion.	From its origin to the first point of diversion near the east line of section 23, T. 40 N., R. 32 E.
Leonard Creek	2	28	From its origin to the first point of diversion.	From its origin to the first point of diversion near the south line of section 12, T. 42 N., R. 28 E.
Pole Creek	4	70	From its origin to the point of diversion of the Golconda water supply.	From its origin to the point of diversion of the Golconda water supply near north line of section

Water	HR	HA	Description of Area Classified	Corrections
				13, T. 35 N., R. 39 E.
Water Canyon Creek	4	71	From its origin to the point of diversion of the Winnemucca municipal water supply.	From its origin to the point of diversion of the Winnemucca municipal water supply near west line of section 12, T. 35 N., R. 38 E.

LANDER COUNTY

Water	HR	HA	Description of Area Classified	Corrections
Lewis Creek	4	59	From its origin to the first point of diversion.	From its origin to the first point of diversion near the center of section 23, T. 30 N., R. 45 E.
Mill Creek	4	59	From its origin to the first point of diversion.	From its origin to the first point of diversion near the south line of section 22, T.29 N., R. 44 E.
Skull Creek	10	138	From its origin to the first point of diversion.	From its origin to the first point of diversion near the east line of T. 21 N., R 45 E.
Steiner Creek	10	138	From its origin to the first point of diversion.	From its origin to the first point of diversion near the north line of section 34, T. 21 N., R 46E.

MINERAL COUNTY

Water	HR	HA	Description of Area Classified	Corrections
Corey Creek	9	110C	From its origin to the point of diversion of the town of Hawthorne.	From its origin to the point of diversion of the town of Hawthorne, near the west line of section 3, T. 7 N., R. 29 E
Cottonwood Creek	9	110B	From its origin to the point of diversion of the Hawthorne Naval Ammunition Depot.	From its origin to the point of diversion of the Hawthorne Naval Ammunition Depot, near the north line of section 34, T. 9 N., R. 28 E.
Rose Creek	9	110B	From its origin to the point of diversion of the Hawthorne Naval Ammunition Depot.	From its origin to the point of diversion of the Hawthorne Naval Ammunition Depot, near the north line of section 4, T. 8 N., R. 29 E.
Squaw Creek	9	110B	From its origin to the point of diversion of the Hawthorne Naval Ammunition Depot.	From its origin to the point of diversion of the Hawthorne Naval Ammunition Depot near the north line of the section 33, T. 9 N., R.

Water	HR	HA	Description of Area Classified	Corrections
				29 E.

NYE COUNTY

Water	HR	HA	Description of Area Classified	Corrections
Barley Creek	10	140	From its origin to the first point of diversion.	From its origin to the first point of diversion near the national forest boundary.
Peavine Creek	10	137	From its origin to the first point of diversion.	From its origin to the first point of diversion near the national forest boundary.
Twin River (N. Fork)	10	137	From its origin to the first point of diversion.	From its origin to the first point of diversion near the mouth of the canyon.
Twin River (S. Fork)	10	137	From its origin to the first point of diversion.	From its origin to the first point of diversion near the mouth of the canyon.

PERSHING COUNTY

Water	HR	HA	Description of Area Classified	Corrections
Star Creek	10	129	From its origin to the first point of diversion.	From its origin to the point of diversion near the west line of T. 31 N., R. 34 E.

WASHOE COUNTY

Water	HR	HA	Description of Area Classified	Corrections
Franktown Creek	6	89	From its origin to the first irrigation diversion.	From its origin to the first irrigation diversion near the north line of section 9, T. 16 N., R. 19 E.
Nigger Creek	2	24	From its origin to the first irrigation diversion.	From its origin to the first irrigation diversion near west line of section 28, T. 36 N., R. 23 E.

WHITE PINE COUNTY

Water	HR	HA	Description of Area Classified	Corrections
Berry Creek	10	179	From its origin to pipeline intake.	From its origin to pipeline intake near the national forest boundary.

Water	HR	HA	Description of Area Classified	Corrections
Bird Creek	10	179	From its origin to pipeline intake.	From its origin to pipeline intake near bird creek campground.
Duck Creek	10	179	From its origin to pipeline intake.	From its origin to pipeline intake near the center of section of section 24, T. 18 N., R. 64 E.
East Creek	10	179	From its origin to pipeline intake.	From its origin to pipeline intake near the national forest boundary.
Goshute Creek	10	179	From its origin to the first point of diversion.	From its origin to the first point of diversion near the center of section 12, T. 25 N., R. 63 E.
North Creek	10	179	From its origin to pipeline intake.	From its origin to pipeline intake, near the north line of section 20, T. 19 N., R. 65 E.
Pine Creek	10	184	From its origin to the first point of diversion.	From its origin to the first point of diversion near the west line of section 17, T. 13 N., R. 68 E.
Ridge Creek	10	184	From its origin to the first point of diversion.	From its origin to the first point of diversion near the west line of section 17, T. 13 N., R. 68 E.
Timber Creek	10	179	From its origin to pipeline intake.	From its origin to pipeline intake near the west line section 27, T. 18 N., R. 65 E.

Class B Waters

LANDER COUNTY

Water	HR	HA	Description of Area Classified	Corrections
Big Creek	4	56	From the east boundary of the United States Forest Service Big Creek Campground to the first diversion dam.	From the east boundary of the United States Forest Service Big Creek Campground to the first diversion dam near the west line of section 4, T. 17 N., R. 43 E
Birch Creek	10	137	From the national forest boundary to the first diversion dam.	From the national forest boundary to the first diversion dam near the west line of section 1, T. 17 N., R. 44 E., M.D.B. & M.

WASHOE COUNTY

Water	HR	HA	Description of Area Classified	Corrections
Franktown Creek	4	89	From the first irrigation diversion to Washoe Lake.	From the first irrigation diversion near the north line of section 9, T.

Water	HR	HA	Description of Area Classified	Corrections
				16 N., R. 19 E. to Washoe Lake.

SUBSEQUENT TASKS

The following tasks are **NOT** being proposed for change at this time, these tasks will be considered at a later date. These tasks are being presented here to generate discussion on possible changes to the class waters.

Waters Not Covered In The NAC

There are numerous waters throughout the State that are not covered under NAC 445A.124 – 445A. 225, or by the tributary rule, NAC 445A.145 (1- 2). It is difficult to ascertain what water quality standards, if any, apply to these waters. Many of these waters should be added to the NAC, but adding new waters to the NAC will take many years. NDEP is considering a blanket coverage to protect unnamed waters for aquatic life and recreation uses. There are many alternatives, but one possible citation is listed below.

NAC 445A.____ Beneficial uses applicable to all natural surface waters except waters specified in NAC 445A.123 to 445A.127 inclusive and 445A.145 to 445A.225, inclusive include propagation of aquatic life and recreation not involving contact with the water. For such waters the water quality standards are:

PARAMETER	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES As designated in NAC 445A.159 (Most Stringent Use Listed First)
Temperature (°C) Trout waters Nontrout waters	≤ 20 ≤ 34	Propagation of aquatic life,
pH (Standard Units)	6.5 – 9.0	Propagation of aquatic life, Recreation involving contact with the water
Dissolved Oxygen (mg/l) Trout Nontrout	≥ 6.0 ≥ 3.0	Propagation of aquatic life
Nitrate (N mg/l)	90	Propagation of aquatic life
Nitrite (N mg/l) Trout Nontrout	≤ 0.06 ≤ 5	Propagation of aquatic life
Total Ammonia	1	Propagation of aquatic life
Turbidity Trout Nontrout	≤ 10 ≤ 50	Propagation of aquatic life
Total Suspended Solids (mg/l)	≤ 50	Propagation of aquatic life
Chloride (mg/l)	≤ 230	Propagation of aquatic life

E. Coli (No./100 ml)		Recreation involving not contact with the water
AGM	≤ 126	
SV	≤ 630	

¹ The ambient water quality criteria for ammonia are specified in NAC 445A.118.

Structure of standards

The class numeric water quality standards, as they are now, do not protect all the beneficial uses listed for each class. NDEP is examining the basic structure and definitions of each class. This will be necessary to evaluate changing or adding standards and/or parameters, to protect all the uses.

As stated above, Class waters are divided into four classes, A through D; class A being the highest quality water and class D being lower water quality. Each class has a definition, a set of beneficial uses, and a set of narrative and numeric standards. The different classes are defined by land use and/or the extent of the influence by man’s activity. The table below contrasts the differences in the land use definitions for each class.

	Human Habitation	Industrial Development	Agriculture	Waste Discharges	Watershed
Class A	Little	No	No intensive		Relatively undisturbed
Class B	Light or moderate	Little	Light to moderate		Moderate influence
Class C	Moderate to Urban	Moderate	Intensive		Considerably altered
Class D	Urban	Highly	Intensive	Multiplicity of discharges	Highly altered

Classes A, B and C all have the same beneficial use of Municipal and Domestic Supply. Each of these three classes has a qualifier associated with the use of municipal and domestic supply. These qualifiers are shown in the table below:

Beneficial Use of Municipal and Domestic Supply		
Class A	Class B	Class C
municipal or domestic supply, or both, with treatment by disinfection only,	municipal or domestic supply, or both, with treatment by disinfection and filtration only,	municipal or domestic supply, or both, following complete treatment,

Without these qualifiers the beneficial uses are the same for Classes A, B and C.

The numeric water quality standards are summarized in the Table 10 below. Note how the numeric standards between classes appear to be based on aquatic life, not differences in municipal and domestic supply.

Table 10. Summary of Numeric Water Quality Standards For Class Waters

Item	Class A	Class B	Class C	Class D
Temperature.				
Trout	≤ 20	≤ 20	≤ 20	
Nontrout		≤ 24	≤ 34	
Δ T		Δ 0	Δ 3	
pH.	6.5 - 8.5	6.5 - 8.5	6.5 - 8.5	6.5 - 9.0
Dissolved oxygen.				
Trout	≥ 6.0	≥ 6.0	≥ 6.0	≥ 3.0
Nontrout		≥ 5.0	≥ 5.0	
Total phosphate	0.15 (where stream enters lake) 0.075 (lake) 0.30(stream)	0.30	1.0	
Nitrate (as N)				
Nitrite (as N)				
Un-ionized Ammonia (as N)				
Turbidity				
Suspended Solids				
Total dissolved solids.	500 or 1/3 above natural conditions (whichever is less)	500 or 1/3 above natural conditions (whichever is less)	500 or 1/3 above natural conditions (whichever is less)	
Chloride				
Sulfate				
Fecal coliform.	200 / 400	200 / 400	200 / 400	
E. Coli				

The class waters are currently defined by land use, the beneficial uses are the same for A, B and C (without the municipal and domestic supply qualifier), and the current numeric standards create the following issues:

- System has different levels of drinking water beneficial uses WITHOUT different levels of numeric criteria
- System has different levels of support of aquatic life WITHOUT different levels of aquatic life beneficial uses
- Appears waters were placed into classes based on land use conditions (1970s), NOT beneficial uses
- System has different levels of drinking water beneficial uses while these uses don't exist on all of these waters – and are not reasonably attainable for some waters

To add water quality parameters to reflect differences between class standards in a consistent manner NDEP is examining possible restructuring of the class waters. NDEP is currently evaluating restructuring and meeting with stakeholders to discuss this possibility. Four general options have been developed to address the issues highlighted above. These options are:

- No Change to Beneficial Uses or Definitions and no changes to the water quality standards

- o of the different classes. Differences between waters would be through RMHQs.
- o Add or rework the BENEFICIAL USES of the classes, adjust aquatic life to differentiate between classes.
- o Add or rework the DEFINITIONS of the classes to distinguish classes.
- o Move Class Waters to Designated waters and add standards according to designated beneficial uses.

NDEP is currently evaluating the structure of the class waters and meeting with stakeholders to discuss this possibility.

New Waters

There are numerous waters throughout the State that are not covered under NAC 445A.124 – 445A. 225, or by the tributary rule, NAC 445A.145 (1- 2). The blanket coverage described above should only be a temporary measure until the appropriate beneficial uses and water quality standards can be adopted.

How the new waters will be added to the NAC will depend on how the restructuring of the class waters proceeds. If new waters to be added to designated waters it would be a fairly straightforward to determine the beneficial uses and add water quality parameters accordingly. If the new waters were to be added to the class waters they would be placed again depending on how the restructuring proceeded.

NDEP contacted state and federal agencies for recommendations of waters that are not in covered by the NAC, but should be. A preliminary list of approximately 90 waters was generated and a subset of waters was selected for the initial round of adding waters to the NAC. These waters are listed below.

Table 11. Waters To Be Added To The NAC

	Stream Name	County	Township	Range	Mountain Range, Drainage System
1	Horse Creek	Churchill	T 19 N	R 35 E	Clan Alpine Range, Dixie Valley
2	Edwards Creek	Churchill	T 18 N	R 36 E	Desatoya Range, Edwards Creek
3	Cherry Creek	Churchill	T 20 N	R 36 E	Clan Alpine Range, Edwards Creek
4	Willow Creek	Churchill	T 17 N	R 35 E	Desatoya Range, Buffalo Creek
5	Big Den Creek	Churchill	T 17 N	R 35 E	Desatoya Range, Buffalo Creek
6	McDermitt Creek	Humboldt	T 47 N	R 36 E	Jordan Meadow/Long Ridge, Quinn River
7	Washburn Creek	Humboldt	T 35 N	R 45 E	Jordan Meadow/Long Ridge Quinn River
8	Crowley Creek	Humboldt	T 44 N	R 36 E	Jordan Meadow/Long Ridge Quinn River
9	Riser Creek	Humboldt	T 47 N	R 36 E	Long Ridge Quinn River
10	Rock Creek	Humboldt	T 34 N	R 39 E	Sonoma Range, Humboldt River
11	Union (Buena Vista) Creek	Pershing	T 30 N	R 34 E	Humboldt Range, Buena Vista Valley
12	Coyote Creek	Pershing	T 30 N	R 34 E	Humboldt Range, Buena Vista Valley
13	Forest Home Creek	Nye	T 6 N	R59E	Grant Range, White River Valley
14	Cherry Creek	Nye	T 3 N	R57E	Quinn Canyon Range, Garden Valley
15	North Fork Cottonwood Creek	Nye	T 3 N	R56E	Quinn Canyon Range, Garden Valley
16	Pine Creek	Nye	T 3 N	R56E	Quinn Canyon Range, Garden Valley
17	West Trout Creek	Elko	T 45 N	R 65, 66 E	Granite Range, Salmon Falls Creek
18	East Trout Creek	Elko	T 45 N	R 65, 66 E	Granite Range, Salmon Falls Creek

19	Trout Creek	Elko	T 45 N	R 65, 66 E	Granite Range, Salmon Falls Creek
20	Willis Creek ??/Merritt Creek	Elko	T 47 N	R 53, 54E	Merritt Mountain, Bruneau River
21	Sherman Creek	Elko	T 35 N	R 56 E	Adobe Range, Humboldt River
22	Jackstone Creek	Elko	T 35 N	R 56 E	Adobe Range, Humboldt River
23	Alum Creek	Washoe	T 19 N	R 19 E	Carson Range, Truckee River
24	Evans Creek	Washoe	T 18,19 N	R 19, 20 E	Carson Range, Truckee River
25	Dry Creek	Washoe	T 18 N	R 19, 20 E	Carson Range, Truckee River
26	Browns Creek	Washoe	T 17 N	R 19 E	Carson Range, Truckee River
27	Winters Creek	Washoe	T 18 N	R 19 E	Carson Range, Truckee River
28	Davis Creek	Washoe	T 18 N	R 19 E	Carson Range, Truckee River

RMHQs

If the class waters system is continued, a way to establish Requirements to Maintain Existing Higher Water Quality (RMHQs) in the class waters NAC (445A.124 – 445A.127) will be developed. A requirement to maintain existing higher quality is established when the monitoring data show that existing water quality for individual parameters is significantly better than the standard necessary to protect the beneficial uses. If adequate monitoring data exist, requirements to maintain existing higher quality (RMHQs) are established at levels which reflect existing conditions. NDEP has contracted UNR to develop a statistical procedure for establishing RMHQs, this should be completed in the next 12 months.

NAC 445A.124 – 445A.127 Showing All changes

NAC 445A.124 Class A waters: Description; beneficial uses; quality standards.

1. Class A waters include 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.
2. The beneficial uses of class A waters are municipal or domestic supply, or both, with treatment by disinfection only, aquatic life, propagation of wildlife, irrigation, watering of livestock, recreation including contact with the water and recreation not involving contact with the water.
3. The quality standards for class A waters are:

Item	Specifications
Floating solids, sludge deposits, tastes or odor-producing substances.	None attributable to man’s activities.
Sewage, industrial wastes or other wastes.	None.
Toxic materials, oils, deleterious substances, colored or other wastes.	None.
Settleable solids.	Only amounts attributable to man’s activities which will not make the waters unsafe or unsuitable as a drinking water source or which will not be detrimental to aquatic life or for any other beneficial use established for this class.
pH (pH units)	6.5 to 9.0
Dissolved oxygen (milligrams/liter)	≥ 6.0
Temperature. (°C) ΔT	≤ 20 0 °C
Fecal coliform. (No./100 ml)	≤ 200/400 ¹
Total Phosphorus (as P) (mg/l)	≤ 0.05 ² ≤ 0.025 ² ≤ 0.10 ²
Total dissolved solids (mg/l)	≤ 500 or one-third above that characteristic of natural conditions (whichever is less) .

¹ Must not exceed a geometric mean of 200 per 100 milliliters based on a minimum of 5 samples during any 30-day period, nor may more than 10 percent of total samples during any 30-day period exceed 400 per 100 ml.

² Must not exceed 0.15 mg/l in any stream at the point where it enters any reservoir or lake, nor 0.075 mg/l in any reservoir or lake, nor 0.30 mg/l in streams and other flowing waters.

TABLE A

Class A Waters

HR-Hydrographic region

HA-Hydrographic area

CARSON CITY

Water	HR	HA	Description of Area Classified
Ash Canyon	8	104	From its origin to the first point of diversion of the Carson City water department, near the west line of section 12, T. 15 N., R. 19 E, M.D.B. & M.
Clear Creek	8	104	From its origin to gaging station number 10-3105 located in NE 1/4 NE 1/4, section 1, T. 14 N., R. 19E, M.D.B. & M.
Kings Canyon	8	104	From its origin to the point of the diversion of the Carson City water department, near the east line of section 23, T. 15 N., R. 19 E., M.D.B. & M.

DOUGLAS COUNTY

Water	HR	HA	Description of Area Classified
Daggett Creek	8	105	From its origin to the Carson River.
Genoa Creek	8	105	From its origin to the first diversion box at the mouth of the canyon, near the east line of section 9, T. 13 N., R. 19 E, M.D.B. & M.
Sierra Canyon Creek	8	105	From its origin to the first diversion structure at the mouth of the canyon, near the east line of section 4, T. 13 N., R. 19 E, M.D.B. & M.

ELKO COUNTY

Water	HR	HA	Description of Area Classified
Angel Lake	10	177	The entire lake.
Bear Creek	3	39	From its origin to the point of diversion for the Jarbidge municipal water supply, near the east line of section 17, T. 46 N., R. 58 E, M.D.B. & M.
Brown's Gulch	3	37	From its origin to the point of diversion for the Mountain City municipal water supply, near the south line of section 24, T. 46 N., R. 53 E, M.D.B. & M.
Camp Creek	3	40	From its origin to the national forest boundary.
Canyon Creek	3	40	From its origin to the national forest boundary.
Cottonwood Creek	3	40	From its origin to the national forest boundary.
Deep Creek	3	37	From its origin to the Wildhorse Reservoir.
Green Mountain Creek	4	47	From its origin to the national forest boundary.
Hendricks Creek	3	37	From its origin to Wildhorse Reservoir.
Humboldt River (N. Fork) and tributaries in Independence Mountain Range	4	44	From its origin to the national forest boundary.
Humboldt River (S. Fork) and tributaries	4	46	From its origin to Lee.

Water	HR	HA	Description of Area Classified
Jack Creek	3	36	From its origin to its confluence with Harrington Creek.
Lamoille Creek	4	45	From its origin to gaging station number 10-316500 located in the NE 1/4, section 6, T. 32 N., R. 58 E., M.D.B. & M.
Little Humboldt River (S. Fork)	4	67	From its origin to Elko-Humboldt county line.
Maggie Creek tributaries	4	51	From their origin to the point where they become Maggie Creek or the point where they reach Maggie Creek.
Mary's River	4	42	From its origin to the point where the river crosses the east line of T. 42 N., R. 59 E., M.D.B. & M.
Owyhee River (E. Fork) above Wildhorse	3	37	From its origin to Wildhorse Reservoir.
Penrod Creek	3	37	From its origin including tributaries to Wildhorse Reservoir.
Pole Canyon Creek	10	176	From its origin to where it becomes Franklin River.
Rock Creek	4	61, 62, 63	From its origin to Squaw Valley Ranch.
Secret Creek	4	43	From its origin to the national forest boundary.
Tabor Creek	4	42	From its origin to the east line of T. 40 N., R. 60 E., M.D.B. & M.
Toyn Creek	4	47	From its origin to the national forest boundary.
Willow Creek	4	63	From its origin to Willow Creek Reservoir.

EUREKA COUNTY

Water	HR	HA	Description of Area Classified
Denay Creek	4	53	From its origin to Tonkin Reservoir.
Roberts Creek	10	139	From its origin to Roberts Creek Reservoir.
Tonkin Reservoir	4	53	The entire reservoir.

HUMBOLDT COUNTY

Water	HR	HA	Description of Area Classified
Bilk Creek	2	29	From its origin to its intersection with the south line of section 35, T. 45 N., R. 32 E., M.D.B. & M.
Blue Lakes	1	2	Entire area.
Bottle Creek	2	31	From its origin to the first point of diversion, near the east line of section 23, T. 40 N., R. 32 E., M.D.B. & M.
Dutch John Creek	4	68	The entire length.
Leonard Creek	2	28	From its origin to the first point of diversion, near the south line of section 12, T. 42 N., R. 28 E., M.D.B. & M.
Little Humboldt River (N. Fork)	4	67	From its origin to the national forest boundary.
Mahogany Creek	2	27	From its origin to Summit Lake.
Martin Creek	4	68	From its origin to the national forest boundary.
Pole Creek	4	70	From its origin to the point of diversion of the Golconda water supply, near north line of section 13, T. 35 N., R. 39 E., M.D.B. & M.

Water	HR	HA	Description of Area Classified
Quinn River	2	33	From its origin to the confluence of the east fork and south fork.
Water Canyon Creek	4	71	From its origin to the point of diversion of the Winnemucca municipal water supply, near west line of section 12, T. 35 N., R. 38 E, M.D.B. & M.

LANDER COUNTY

Water	HR	HA	Description of Area Classified
Big Creek	4	56	From its origin to the east boundary of United States Forest Service Big Creek Campground.
Birch Creek	10	137	From its origin to the national forest boundary.
Kingston Creek	10	137	From its origin to Groves Reservoir.
Lewis Creek	4	59	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.
Mill Creek	4	59	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.
Skull Creek	10	138	From its origin to the first point of diversion, near the east line of T. 21 N., R 45 E, M.D.B. & M.
Steiner Creek	10	138	From its origin to the first point of diversion, near the north line of section 34, T. 21 N., R 46E, M.D.B. & M.

MINERAL COUNTY

Water	HR	HA	Description of Area Classified
Corey Creek	9	110C	From its origin to the point of diversion of the town of Hawthorne, near the west line of section 3, T. 7 N., R. 29 E, M.D.B. & M.
Cottonwood Creek	9	110B	From its origin to the point of diversion of the Hawthorne Naval Ammunition Depot, near the north line of section 34, T. 9 N., R. 28 E, M.D.B. & M.
Rose Creek	9	110B	From its origin to the point of diversion of the Hawthorne Naval Ammunition Depot, near the north line of section 4, T. 8 N., R. 29 E, M.D.B. & M.
Squaw Creek	9	110B	From its origin to the point of diversion of the Hawthorne Naval Ammunition Depot, near the north line of the section 33, T. 9 N., R. 29 E, M.D.B. & M.

NYE COUNTY

Water	HR	HA	Description of Area Classified
Barley Creek	10	140	From its origin to the first point of diversion, near the national forest boundary.
Currant Creek	10	173	From its origin to the national forest boundary.
Jett Creek	10	137	From its origin to the national forest boundary.
Mosquito Creek	10	140	From its origin to the national forest boundary.
Peavine Creek	10	137	From its origin to the first point of diversion, near the national forest boundary.
Pine Creek	10	140	From its origin to the national forest boundary.
Reese Creek	4	56	From its origin to its confluence with Indian Creek.

San Juan Creek	4	56	From its origin to the national forest boundary.
Stoneberger Creek	10	140	From its origin to the national forest boundary.
Twin River (N. Fork)	10	137	From its origin to the first point of diversion, near the national forest boundary.
Twin River (S. Fork)	10	137	From its origin to the first point of diversion, near the national forest boundary.

PERSHING COUNTY

Water	HR	HA	Description of Area Classified
Star Creek	10	129	From its origin to the first point of diversion, near the west line of T. 31 N., R. 34 E, M.D.B. & M.

WASHOE COUNTY

Water	HR	HA	Description of Area Classified
Boulder Reservoir	1	9	The entire reservoir.
Catnip Reservoir	1	6	The entire reservoir.
Franktown Creek	6	89	From its origin to the first irrigation diversion, near the north line of section 9, T. 16 N., R. 19E, M.D.B. & M.
Galena Creek	6	88	From its origin to the east line of section 18, T. 17 N., R. 19 E., M.D.B. & M.
Hunter Creek	6	87	From its origin to Hunter Lake.
Hunter Lake	6	87	The entire lake.
Negro Creek	2	24	From its origin to the first irrigation diversion, near west line of section 28, T. 36 N., R. 23 E, M.D.B. & M.
Ophir Creek	6	89	From its origin to State Route 429 (old U.S. Highway 395).
Price's Lakes	6	89	The entire lake.
White's Creek	6	87	From its origin to the east line of section 33, T. 18 N., R. 19 E., M.D.B. & M.

WHITE PINE COUNTY

Water	HR	HA	Description of Area Classified
Baker Creek	11	195	From its origin to the national forest boundary.
Berry Creek	10	179	From its origin to pipeline intake near the national forest boundary.
Bird Creek	10	179	From its origin to pipeline intake near bird creek campground.
Cave Creek	10	179	Its entire length.
Cleve Creek	10	184	From its origin to the national forest boundary.
Current Creek	10	173	From its origin to the national forest boundary.
Duck Creek	10	179	From its origin to pipeline intake, near the center of section of section 24, T. 18 N., R. 64 E, M.D.B. & M.
East Creek	10	179	From its origin to pipeline intake, near the national forest boundary.
Goshute Creek	10	179	From its origin to the first point of diversion, near the center of section 12, T. 25 N., R. 63 E, M.D.B. & M.
Hendry's Creek	11	195	From its origin to the national forest boundary.
Huntington Creek	4	47	From its origin to the White Pine-Elko county line.
Lehman Creek	11	195	From its origin to the national forest boundary.
North Creek	10	179	From its origin to pipeline intake, near the north line of section

Water	HR	HA	Description of Area Classified
			20, T. 19 N., R. 65 E, M.D.B. & M.
Pine Creek	10	184	From its origin to the first point of diversion, near the west line of section 17, T. 13 N., R. 68 E, M.D.B. & M.
Ridge Creek	10	184	From its origin to the first point of diversion, near the west line of section 17, T. 13 N., R. 68 E, M.D.B. & M.
Silver Creek	11	195	From its origin to the national forest boundary.
Timber Creek	10	179	From its origin to pipeline intake, near the west line section 27, T. 18 N., R. 65 E, M.D.B. & M.
White River	13	207	From its origin to the national forest boundary.

NAC 445A.125 Class B waters: Description; beneficial uses; quality standards.

1. Class B waters include 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.

2. The beneficial uses of class B waters are municipal or domestic supply, or both, with treatment by disinfection and filtration only, irrigation, watering of livestock, aquatic life and propagation of wildlife, recreation involving contact with the water, recreation not involving contact with the water, and industrial supply.

3. The quality standards for class B waters are:

Item	Specifications
Floating solids, settleable solids or sludge deposits.	Only such amounts attributable to man's activities which will not make the waters unsafe or unsuitable as a drinking water source, injurious to fish or wildlife or impair the waters for any other beneficial use established for this class.
Sewage, industrial wastes or other wastes.	None which are not effectively treated to the satisfaction of the department.
Odor-producing substances.	Only such amounts which will not impair the palatability of drinking water or fish or have a deleterious effect upon fish, wildlife or any beneficial uses established for waters of this class.
Toxic materials, oil, deleterious substances, colored or other wastes, or heated or cooled liquids.	Only such amounts as will not render the receiving waters injurious to fish or wildlife or impair the receiving waters for any beneficial uses established for this class.
pH (pH units)	6.5 to 9.0
Dissolved oxygen. (mg/l) Trout Non-trout	≥ 6.0 ≥ 5.0
Temperature (°C) Trout Non-trout ΔT	≤ 20 ≤ 24 0
Fecal coliform. (No./100 ml)	≤ 200/400 ¹
Total Phosphorus (as P) (mg/l)	≤ 0.10
Total dissolved solids (mg/l)	≤ 500 or one-third above that characteristic of natural conditions (whichever is less).

¹ Must not exceed a geometric mean of 200 per 100 milliliters based on a minimum of 5 samples during any 30-day period, nor may more than 10 percent of total samples during any 30-day period exceed 400 per 100 ml.

4. The waters classified as class B are:

TABLE B

Class B Waters

HR-Hydrographic region

HA-Hydrographic area

(T) = Trout Water

(N) = Nontrout Water

CARSON CITY

Water	HR	HA	Description of Area Classified
Clear Creek (T)	8	104	From gaging station number 10-3105 located in the NE 1/4 NW 1/4, section 1, T. 14 N., R. 19 E., M.D.B. & M. to the Carson River.

ELKO COUNTY

Water	HR	HA	Description of Area Classified
Bull Run Reservoir (T)	3	35	The entire reservoir.
Camp Creek (T)	3	40	From the national forest boundary to its confluence with the south fork of Salmon Falls Creek.
Canyon Creek (T)	3	40	From the national forest boundary to its confluence with the south fork of Salmon Falls Creek.
Cottonwood Creek (T)	3	40	From the national forest boundary to its confluence with the south fork of Salmon Falls Creek.
Green Mountain Creek (T)	4	47	From the national forest boundary to its confluence with Corral Creek.
Harrington Creek (T)	3	36	From its confluence with Jack Creek to the South Fork of the Owyhee River
Humboldt River (N. Fork) (T) (N)	4	44	From the national forest boundary to its confluence with the Humboldt River.
Humboldt River (S. Fork) (T)	4	46, 48, 49	From Lee to its confluence with the Humboldt River.
Huntington Creek (T) (N)	4	47	From White Pine county line to confluence with South Fork Humboldt River.
Lamoille Creek (N)	4	45	From gaging station number 10-316500 located in the NE 1/4, section 6, T. 32 N., R. 58 E., M.D.B. & M. to its confluence with the Humboldt River.
Maggie Creek (T)	4	51	From where it is formed by tributaries to its confluence with Jack Creek.
Mary's River (T) (N)	4	42	From the east line of T. 42 N., R. 59 E., M.D.B. & M. to its confluence with the Humboldt River.
Ruby Marsh (T)	10	176	The entire area.
Salmon Falls Creek (N. Fork) (T)	3	40	From the national forest boundary to its confluence with the south fork of Salmon Falls Creek.
Salmon Falls Creek (S. Fork) (T)	3	40	From the national forest boundary to its confluence with the north fork of Salmon Falls Creek.
76 Creek (T)	3	38	Its entire length.
Secret Creek (T)	4	43	From the national forest boundary to the Humboldt River.
Starr Creek (T)	4	43	From the confluence of Ackler and Herder Creeks to the Humboldt River.

Water		HR	HA	Description of Area Classified
Wildhorse Reservoir	(T)	3	37	The entire reservoir.
Willow Creek Reservoir	(T)	4	63	The entire reservoir.
Wilson Reservoir	(T)	3	35	The entire reservoir.

EUREKA COUNTY

Water		HR	HA	Description of Area Classified
Denay Creek	(N)	4	53	Below Tonkin Reservoir.
Fish Springs Pond	(T)	10	155	The entire pond.
Roberts Creek	(N)	10	139	Below Roberts Creek Reservoir.

HUMBOLDT COUNTY

Water		HR	HA	Description of Area Classified
Bilk Creek	(T)	2	29	From its intersection with the south line of section 35, T. 45 N., R. 32 E., M.D.B. & M. to Bilk Creek Reservoir.
Bilk Creek Reservoir	(T)	2	29	The entire reservoir.
Knott Creek Reservoir	(T)	1	3	The entire reservoir.
Little Humboldt River (N. Fork)	(N)	4	67	From the national forest boundary to its confluence with the south fork of the Little Humboldt River.
Little Humboldt River (S. Fork)	(N)	4	67	From the Elko-Humboldt county line to its confluence with the north fork of the Little Humboldt River.
Martin Creek	(T)	4	68, 69	From the national forest boundary downstream to the first diversion in T. 42 N., R. 40 E., M.D.B. & M.
Onion Valley Reservoir	(T)	1	2	The entire reservoir.
Quinn River	(T)	2	33	From the point of confluence of the east fork and south fork to the Ft. McDermitt Indian Reservation diversion dam.
Summit Lake	(T)	2	27	The entire lake.

LANDER COUNTY

Water		HR	HA	Description of Area Classified
Big Creek	(T)	4	56	From the east boundary of the United States Forest Service 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.
Birch Creek	(T)	10	137	From the national forest boundary to the first diversion dam near the west line of section 1, T. 17 N., R. 44 E., M.D.B. & M.
Groves Lake	(T)	10	137	The entire lake.
Iowa Canyon Reservoir	(T)	4	55	The entire reservoir.
Kingston Creek	(T)	10	137	Below Groves Lake.
Reese River	(T)	4	56	From its confluence with Indian Creek to Nevada State Route 722 (old U.S. Highway 50).
Willow Creek Reservoir	(T)	10	131	The entire reservoir.

LINCOLN COUNTY

Water		HR	HA	Description of Area Classified
Clover Creek	(T)	13	204	From its origin to the point where it crosses the east range line of T. 4 S., R. 67 E., M.D.B. & M.
Eagle Valley Creek	(T)	13	200, 201	From its headwaters to Eagle Valley Reservoir.
Eagle Valley Reservoir	(T)	13	201	The entire reservoir.

NYE COUNTY

Water		HR	HA	Description of Area Classified
Adams McGill Reservoir	(N)	13	207	The entire reservoir.
Currant Creek	(N)	10	173	From the national forest boundary to Currant.
Dacey Reservoir	(N)	13	207	The entire reservoir.
Hay Meadow Reservoir	(T)	13	207	The entire reservoir.
Reese River	(T)	4	56	From its confluence with Indian Creek to Nevada State Route 722 (old U.S. Highway 50).
Sunnyside Creek	(N)	13	207	From its origin to the Adams McGill Reservoir.

WASHOE COUNTY

Water		HR	HA	Description of Area Classified
Davis Lake	(T)	6	89	The entire lake.
Franktown Creek	(T)	6	89	From the first irrigation diversion near the north line of section 9, T. 16 N., R. 19E, to Washoe Lake.
Galena Creek	(T)	6	88	From the east line of section 18, T. 17 N., R. 19 E., M.D.B. & M. to gaging station number 10-348900 located in the SW 1/4 SW 1/4, section 2, T. 17 N., R. 19 E., M.D.B. & M.
Hobart Reservoir and tributaries	(T)	6	89	The entire system.
Hunter Creek	(T)	6	87	From Hunter Lake to its confluence with the Truckee River.
Ophir Creek	(T)	6	89	From State Route 429 (old U.S. Highway 395) to Washoe Lake.
Squaw Creek Reservoir	(T)	2	21	The entire reservoir.
Wall Canyon Reservoir	(T)	1	16	The entire reservoir.
White's Creek	(T) (N)	6	87	Below the east line of section 33, T. 18 N., R. 19 E., M.D.B. & M.

WHITE PINE COUNTY

Water		HR	HA	Description of Area Classified
Cave Lake	(T)	10	179	The entire lake.
Illipah Reservoir	(T)	10	174	The entire reservoir.
Silver Creek Reservoir	(T)	11	195	The entire reservoir.
White River	(T)	13	207	From the national forest boundary to its confluence with Ellison Creek.

[Environmental Comm'n, Water Pollution Control Reg. §§ 4.2.2-4.2.2.3, eff. 5-2-78]—(NAC A 12-3-84)—(Substituted in revision for NAC 445.123)

NAC 445A.126 Class C waters: Description; beneficial uses; quality standards.

1. Class C waters include 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.

2. The beneficial uses of class C waters are municipal or domestic supply, or both, following complete treatment, irrigation, watering of livestock, aquatic life, propagation of wildlife, recreation involving contact with the water, recreation not involving contact with the water, and industrial supply.

3. The quality standards for class C waters are:

Item	Specifications
Floating solids, solids that will settle or sludge deposits.	Only those amounts attributable to the activities of man which will not make the receiving waters injurious to fish or wildlife or impair the waters for any beneficial use established for this class.
Sewage, industrial wastes or other wastes.	None which are not effectively treated to the satisfaction of the department.
Toxic materials, oils, deleterious substances, colored or other wastes or heated or cooled liquids.	Only such amounts as will not render the receiving waters injurious to fish and wildlife or impair the waters for any beneficial use established for this class.
pH (pH units)	6.5 to 9.0
Dissolved oxygen. (mg/liter.)	
Trout	≥ 6.0
Non-trout	≥ 5.0
Temperature (°C)	
Trout	≤ 20
Non-trout	≤ 34
ΔT	3
Fecal coliform. (No./100 ml) annual geometric mean above natural conditions geometric mean	The more stringent of the following apply: ≤ 1000/2400 ¹ ≤ 200/400 ² ≤ 200/400 ³
Total Phosphorus (as P) (mg/l)	Must not exceed 0.33 mg/l.
Total dissolved solids (mg/l)	≤ 500 or one-third above that characteristic of natural conditions (whichever is less).

¹ The fecal coliform concentration must not exceed a geometric mean of 1000 per 100 milliliters nor may more than 20 percent of total samples exceed 2400 per 100 milliliters.

² The annual geometric mean of fecal coliform concentration must not exceed that characteristic of natural conditions by more than 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed that characteristic of natural conditions by more than 400 per 100 milliliters.

³ The fecal coliform concentration, based on a minimum of 5 samples during any 30-day period, must not exceed a geometric mean of 200 per 100 milliliters, nor may more than 10 percent of total samples during any 30-day period exceed 400 per 100 milliliters. This is applicable only to those waters used for primary contact recreation.

4. The waters classified as class C waters are:

TABLE C

Class C Waters

HR-Hydrographic region

(T) = Trout Water

HA-Hydrographic area

(N) = Nontrout Water

CHURCHILL COUNTY

Water		HR	HA	Description of Area Classified
Diagonal Drain	(N)	8	101	Its entire length.
Harmon Reservoir	(N)	8	101	The entire reservoir.
Indian Lakes	(N)	8	101	All the lakes, including Upper Lake, Likes Lake, Pappoose Lake, Big Indian Lake, Little Cottonwood Lake, Big Cottonwood Lake and East Lake.
Lower Carson River	(N)	8	101	From Lahontan Reservoir to Carson Sink (the natural channel).
Rattlesnake Reservoir	(N)	8	101	Also known as S-Line Reservoir, the entire reservoir.
South Carson Lake	(N)	8	101	Also known as Government Pasture or the Greenhead Gun Club, the entire lake.
Stillwater Marsh	(N)	8	101	All that area of Stillwater Marsh east of Westside Road and north of the community of Stillwater.
V-Line Canal	(N)	8	101	From the Carson diversion dam to its division into the S & L Canals.

CLARK COUNTY

Water		HR	HA	Description of Area Classified
Bowman Reservoir	(N)	13	220	The entire reservoir.

ELKO COUNTY

Water		HR	HA	Description of Area Classified
Maggie Creek	(T) (N)	4	51	From its confluence with Jack Creek to the Humboldt River.
Rock Creek	(T) (N)	4	61, 62, 63	Below Squaw Valley Ranch.

ESMERALDA COUNTY

Water		HR	HA	Description of Area Classified
Fish Lake	(N)	10	117	The entire lake.

EUREKA COUNTY

Water		HR	HA	Description of Area Classified
J.D. Ponds	(N)	4	53	The entire area.
Maggie Creek	(T) (N)	4	51	From its confluence with Jack Creek to the Humboldt River.
Rock Creek	(T) (N)	4	61, 62, 63	Below Squaw Valley Ranch.

HUMBOLDT COUNTY

Water		HR	HA	Description of Area Classified
Little Humboldt River	(N)	4	67, 69	Its entire length.

LANDER COUNTY

Water		HR	HA	Description of Area Classified
Reese River	(N)	4	56, 58, 59	North of Nevada State Route 722.
Rock Creek	(T) (N)	4	61, 62, 63	Below Squaw Valley Ranch.

LINCOLN COUNTY

Water		HR	HA	Description of Area Classified
Echo Canyon Reservoir	(T)	13	199	The entire reservoir.
Nesbitt Lake	(N)	13	209	The entire lake.
Pahranagat Reservoir	(N)	13	209	The entire reservoir.
Schroeder Reservoir	(T)	13	222	The entire reservoir.

LYON COUNTY

Water		HR	HA	Description of Area Classified
Mason Wildlife Area	(T) (N)	9	108	All surface water impoundments.

MINERAL COUNTY

Water		HR	HA	Description of Area Classified
Weber Reservoir	(N)	9	110	Entire reservoir.

PERSHING COUNTY

Water		HR	HA	Description of Area Classified
Humboldt River	(N)	4	73	From Woolsey to Rodgers Dam.

STOREY COUNTY

Water		HR	HA	Description of Area Classified
Tracy Pond	(T)	6	83	The entire area.

WASHOE COUNTY

Water		HR	HA	Description of Area Classified
Galena Creek	(T)	6	88	From gaging station number 10-348900 located in the SW 1/4, SW 1/4, section 2, T. 17 N., R. 19 E., M.D.B. & M., to its confluence with Steamboat Creek.
Steamboat Creek	(N)	6	88, 89	From Little Washoe Lake to gaging station number 10-349300 located in the S 1/2, section 33, T. 18 N., R. 20 E., M.D.B. & M.
Washoe Lakes	(N)	6	89	The entire lakes.

WHITE PINE COUNTY

Water		HR	HA	Description of Area Classified
Comins Reservoir	(T)	10	179	The entire reservoir.
Gleason Creek	(N)	10	179	From its origin to State Highway 485 (old State Highway 44).
Snake Creek	(T)	11	195	From control point above fish hatchery to the Nevada-Utah state line.

NAC 445A.127 Class D waters: Description; beneficial uses; quality standards.

1. Class D waters include waters or portions of waters located in areas of urban development, highly industrialized or intensively used for agriculture or a combination of all the above and where effluent sources include a multiplicity of waste discharges from the highly altered watershed.

2. The beneficial uses of class D waters are recreation not involving contact with the water, aquatic life, propagation of wildlife, irrigation, watering of livestock, and industrial supply except for food processing purposes.

3. The quality standards for class D waters are:

Item	Specifications
Floating solids, settleable solids or sludge deposits.	Only such amounts attributable to the activities of man which will not impair the receiving waters for any beneficial use established for this class.
Sewage, industrial wastes or other wastes.	None which are not effectively treated to the satisfaction of the department.
Toxic materials, oils, deleterious substances, colored or other wastes or heated or cooled liquid.	Only such amounts as will not impair the receiving waters for any beneficial use established for this class.
pH (pH units)	6.0 to 9.0.
Dissolved oxygen (mg/l)	≥ 3.0.

4. The waters classified as class D waters are:

TABLE D

Class D Waters

HR-Hydrographic region

HA-Hydrographic area

CHURCHILL COUNTY			
Water	HR	HA	Description of Area Classified
Stillwater Marsh	8	101	All that area of Stillwater Marsh not designated as class C.

HUMBOLDT COUNTY			
Water	HR	HA	Description of Area Classified
Quinn River	2	33	From the Idaho-Nevada state line in section 31, T. 48 N., R. 38 E., to the confluence with the main tributary of the Quinn River at the south section line of section 17, T. 47 N., R. 38 E.

PERSHING COUNTY			
Water	HR	HA	Description of Area Classified
Humboldt River	4	73	Rodgers Dam to and including Humboldt Sink.

STOREY COUNTY			
Water	HR	HA	Description of Area Classified
Lagomarsino Creek (Long Valley Creek)	6	83	The entire length.

WASHOE COUNTY			
Water	HR	HA	Description of Area Classified
Steamboat Creek	6	87	From gaging station number 10-349300 located in S 1/2, section 33, T. 18 N., R. 20 E., M.D.B. & M. to its confluence with the Truckee River.

WHITE PINE COUNTY			
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Water	HR	HA	Description of Area Classified
Gleason Creek	10	179	From State Highway 485 (old State Highway 44) to its confluence with Murray Creek.
Murray Creek	10	179	From its confluence with Gleason Creek to the south line of section 35, T. 17 N., R. 63 E., M.D.B. & M.

WRITTEN AND VERBAL COMMENTS WITH NDEP RESPONSE

Elko Water Quality Standards Workshop – October 14, 2003

Proposed Class Waters Revisions

Comments & Responses

Nevada Division of Environmental Protection – Bureau of Water Quality Planning

Comment: When will the toxics regulation changes for aquatic life uses be occurring?

Response: Sometime during the next year, we hope to be holding workshops across the state on these regulation changes.

Comment: With the class water revisions, were typographical errors the cause for wrong counties being identified in the regulations?

Response: We aren't sure the cause of the error. It could very well have been human error.

Comment: Is it correct that the tributary rule doesn't apply when there is no flow connecting the two waterbodies?

Response: Yes.

Comment: How do TMDLs fit in with waters with just narrative standards?

Response: It becomes difficult to use narrative standards to list waters as impaired (which then require TMDL development). Most of the listings in the 303(d) List are typically based upon exceedances of numeric criteria. However, if well documented information (such as fish consumption advisories, Superfund designations) not directly related to a water quality numeric criteria, a water can be listed.

Carson City Water Quality Standards Workshop – October 15, 2003

Proposed Class Waters Revisions

Comments & Responses

Nevada Division of Environmental Protection – Bureau of Water Quality Planning

Comment: What is the pH standard for drinking water?

Response: Not sure, but the aquatic criteria are the most restrictive.

Comment: The regulations define Rock Creek as a Class C water from “below Squaw Ranch” to the Humboldt River. Is Class C appropriate for the upper stretch in the canyon?

Response: NDEP will review the beneficial uses and water quality standards as appropriate and as time allows. If stakeholders have strong concern about a particular waterbody, please contact NDEP.

Comment: Is NDEP having problems associated with those waters not having numeric standards?

Response: Indirectly, yes. Recently, BLM has been in litigation associated with grazing impacts to water quality of unclassified waters within the Carico Lake Allotment.

Comment: The class waters TDS standard includes an allowance for increases up to 1/3 above natural conditions. How is this not degradation?

Response: We feel that is an issue that needs to be considered in future revisions.

Comment: I would like to keep the class waters within the class water system, rather than migrating them to the designated system.

Response: Comment noted.

Comment: The proposed revisions involve removing all the narrative associated with the temperature change standard. Is this going to change how discharges are permitted?

Response: No. Use of the “ ΔT ” will make the class water regulations consistent with the other designated waters.

Overton Water Quality Standards Workshop – October 22, 2003

Proposed Class Waters Revisions

Comments & Responses

Nevada Division of Environmental Protection – Bureau of Water Quality Planning

Comment: What about dace in the Muddy River? Does this justify a use designation of water of extraordinary ecological value?

Response: Protection of fish is covered by our “propagation of aquatic life” beneficial use. Only Lake Tahoe has been designated as a water of extraordinary ecological value.

Comment: Do water quality standards and beneficial uses control how water is used at the Reid Gardner Power Plant?

Response: This would be handled through the permitting process. Water quality standards are used to set effluent limitations on any discharges to the surface water.

Comment: Does EPA include risk analyses in recommending numeric criteria?

Response: When developing drinking water MCLs (maximum contaminant levels) and other human health criteria, EPA incorporates risk analyses.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION IX

Letter dated November 25, 2003

Comments & Responses

Nevada Division of Environmental Protection – Bureau of Water Quality Planning

Comment: We support the reformatting of the Class Waters' Tables to be more consistent with the designated waters. We also support the clean up of reach names/descriptions/hydrographic regions and areas. These changes will make it easier to understand and read the standards.

Response: Comment noted.

Comment: We support the proposed revisions to the pH standards to make them consistent with the Gold Book recommendations for pH.

Response: Comment noted.

Comment: We support the proposed changes to change the varying phosphorus standards to total phosphorus throughout the water quality standards. Again, this will aid in understanding the standards and does not change the existing standard. The current phosphorus type standard is being adjusted with a correction factor to total phosphorus.

Response: Comment noted.

Comment: We understand that you are proposing to designate the actual reaches as to whether they are trout or nontrout waters in the tables to make determination of the appropriate dissolved oxygen and temperature standards clear for each reach. Currently, this determination is made on a reach by reach basis as the need to apply the standards arises. Actually specifying the reach in the tables will take out the ambiguity in the standards. You may wish to consider designating the streams as cold water fishery vs. warm water fishery rather than trout vs. nontrout. In either case, you should clarify what species are included as "trout" or cold water fish. We understand that the determination of trout versus nontrout was made using data from the Nevada Division of Wildlife.

Response: Comment noted.

Comments on the proposed subsequent tasks:

Comment: We understand you are considering adding a blanket coverage including the beneficial uses and water quality standards to minimally protect unnamed waters for aquatic life and recreation uses. We support your proposal to add a blanket coverage to waters not currently listed with more specific designations.

Response: Comment noted.

Comment: You have presented four options for re-structuring the Class Waters. We feel that the best strategy would be to move the class waters to designated waters as this would provide the best protection for the waters. However, this option also offers a significant workload for the already overburdened standards program. In lieu of this, perhaps a hybrid approach would work. You could proceed first with reworking the Beneficial Uses of the classes to adjust the aquatic life to differentiate between the classes. Remember that if the reworking results in moving waters to different classes, then a use attainability analysis may be required although the use attainability analysis might be fairly straight forward. As time and resources allow in the future, you might wish to begin moving the class waters to designated waters. The least preferable options are to leave the class beneficial uses and standards as they are and distinguish them using RMHQs and to rework the definitions for the class waters.

Response: Comment noted.

Comment: We do not have any additional waters to add to your proposed list of new waters. You have done a good job of contacting the interested stakeholders for input into the list. Adding this list of proposed waters will be a large undertaking.

Response: Comment noted.

VERNON LEE, TRIBAL MEMBER MOAPA BAND OF PAIUTES

Letter dated October 8, 2003

Comments & Responses

Nevada Division of Environmental Protection – Bureau of Water Quality Planning

Comment: The Webster Dictionary describes a river as: a natural stream of water of considerable volume. The Muddy River has a source and a mouth. It is of constant flow, and moves downstream very briskly. It is the home of protected species, including the Moapa Dace fish, which can be found nowhere else in the world. The water quality standard needs to be strengthened. The presentation put on by the Nevada Division of Environmental Protection lists beneficial uses for Class C waters, and states the criteria of "following complete treatment and industrial supply."

Response: The Muddy River has water quality standards under both Nevada's Class category and the Designated category. The water quality standards under the Designated category are more complete. NDEP is proposing to remove the Muddy River from the Class category and leave it in the Designated category to avoid confusion as to which standards apply.

Comment: I support the protection of the waters of the Muddy River and also strongly suggest a risk analysis be done to secure the future of the river.

Response: When developing drinking water MCLs (maximum contaminant levels) and other human health criteria, EPA incorporates risk analyses.

Comment: The real danger to the Muddy River lies in and around the Reid-Gardner Power Station. Nevada Power, for nearly 40 years, has been dumping millions of gallons of waste water and millions of tons of coal ash, all of which could be treated and recycled or processed. The entire area is saturated. It is my opinion that all of the contaminated materials within the flood plain of the Muddy River should be dug up and removed.

Response: Surface water discharges would be handled through the permitting process. Water quality standards are used to set effluent limitations on any discharges to the surface water.

Comment: Historically speaking, one could drink from the Muddy River knowing it was safe. The river is a place of life for all, including fish, turtles, muskrats, beaver, and all other animals that come to drink. To not adequately protect the Muddy River for future generations would be a travesty.

Response: Comment noted. The Muddy River above the Glendale Bridge is protected for the beneficial use municipal and domestic supply, the Muddy River below the Glendale Bridge is not. Within the next 5 years NDEP expects to complete a review of the Designated water quality standards of the Muddy, and Virgin Rivers.

UNITED STATES DEPARTMENT OF THE INTERIOR, FISH AND WILDLIFE SERVICE

Letter Dated December 1, 2003

Comments & Responses

Nevada Division of Environmental Protection – Bureau of Water Quality Planning

Comment: NAC 445A.124 Class A waters: Description, beneficial uses, quality standards. Page 46: In the table, the specifications for total dissolved solids (mg/l) should read " \leq 500 or one-third above that characteristic of natural conditions (whichever is less)." In footnote 2 to the table, the three concentrations appear to be in error and should be changed (in order of listing) to the following: 0.05 mg/l, 0.025 mg/l, and 0.10 mg/l.

Response: Errors Corrected.

Comment: NAC 445A.124 Class B waters: Description; beneficial uses; quality standards. Page 52: In the table, the specifications for total dissolved solids (mg/l) should read " \leq 500 or one-third above that characteristic of natural conditions (whichever is less)."

Response: Errors Corrected.

Comment: NAC 445A.124 Class C waters: Description; beneficial uses, quality standards. Page 56: In item number 2 of this section, change "water" to "waters." In the table, the numerical values for specifications for Fecal coliform should all be preceded by " \leq ." For consistency with the reading for other class waters, the specifications for Total Phosphorus should read " \leq 0.33 mg/l" and the words "Must not exceed" should be deleted. In the table the specifications for total dissolved solids (mg/l) should read " \leq 500 or one-third above that characteristic of natural conditions (whichever is less)."

Response: Errors Corrected.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

November 25, 2003

John Heggeness
Water Quality Standards Branch
Bureau of Water Quality Planning
Nevada Division of Environmental Protection
333 West Nye Lane
Carson City, NV 89710

Dear Mr. Heggeness:

Thank you for the opportunity to review and comment on the Proposed Revisions to the Class Water Quality Standards (NAC 445A.124 through 445A.127). This letter provides written comments on the draft changes presented at the October 15, 2003 stakeholders meeting and in the draft Rationale, dated September 2003. At this time, EPA is supportive of the proposed changes, although we have some comments. We are also providing comments as requested on the future potential revisions to the Class Waters.

1. We support the reformatting of the Class Waters' Tables to be more consistent with the designated waters. We also support the clean up of reach names/descriptions/hydrographic regions and areas. These changes will make it easier to understand and read the standards.
2. We support the proposed revisions to the pH standards to make them consistent with the Gold Book recommendations for pH.
3. We support the proposed changes to change the varying phosphorus standards to total phosphorus throughout the water quality standards. Again, this will aid in understanding the standards and does not change the existing standard. The current phosphorus type standard is being adjusted with a correction factor to total phosphorus.
4. We understand that you are proposing to designate the actual reaches as to whether they are trout or nontrout waters in the tables to make determination of the appropriate dissolved oxygen and temperature standards clear for each reach. Currently, this determination is made on a reach by reach basis as the need to apply the standards arises. Actually specifying the reach in the tables will take out the ambiguity in the standards. You may wish to consider designating the streams as cold water fishery vs. warm water fishery rather than trout vs. nontrout. In either case, you should clarify what species are included as "trout" or cold water fish. We understand that the determination of trout versus nontrout was made using data from the Nevada Division of Wildlife.

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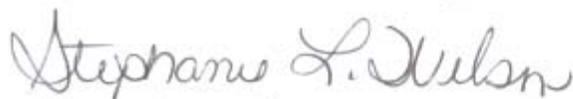
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Comments on the proposed subsequent tasks:

1. We understand you are considering adding a blanket coverage including the beneficial uses and water quality standards to minimally protect unnamed waters for aquatic life and recreation uses. We support your proposal to add a blanket coverage to waters not currently listed with more specific designations.
2. You have presented four options for re-structuring the Class Waters. We feel that the best strategy would be to move the class waters to designated waters as this would provide the best protection for the waters. However, this option also offers a significant workload for the already overburdened standards program. In lieu of this, perhaps a hybrid approach would work. You could proceed first with reworking the Beneficial Uses of the classes to adjust the aquatic life to differentiate between the classes. Remember that if the reworking results in moving waters to different classes, then a use attainability analysis may be required although the use attainability analysis might be fairly straight forward. As time and resources allow in the future, you might wish to begin moving the class waters to designated waters. The least preferable options are to leave the class beneficial uses and standards as they are and distinguish them using RMHQs and to rework the definitions for the class waters.
3. We do not have any additional waters to add to your proposed list of new waters. You have done a good job of contacting the interested stakeholders for input into the list. Adding this list of proposed waters will be a large undertaking.

Please call me at (775) 887-7528 if you have any questions or need additional information. Your efforts to refine the Class Water water quality standards have been well done and we support you.

Sincerely,



Stephanie L. Wilson
State, Tribal, & Municipal Programs Office

cc: Phil Woods, WTR-3

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03 OCT 14 AM 11:41

John Heggeness
Nevada Department of Environmental Protection
Bureau of Water Quality
3333 W. Nye Lane, Suite 138
Carson City, Nevada 89706

October 8, 2003

Re: The article in the Moapa Valley Progress October 1, 2003

Dear Sirs,

The Webster Dictionary describes a river as: a natural stream of water of considerable volume. The Muddy River has a source and a mouth. It is of constant flow, and moves downstream very briskly. It is the home of protected species, including the Moapa Dace fish, which can be found no where else in the world. The water quality standard needs to be strengthened. The presentation put on by the Nevada Division of Environmental Protection lists beneficial uses for Class C waters, and states the criteria of "following complete treatment and industrial supply."

I support the protection of the waters of the Muddy River and also strongly suggest a risk analysis be done to secure the future of the river. The real danger to the Muddy River lies in and around the Reid-Gardner Power Station. Nevada Power, for nearly 40 years, has been dumping millions of gallons of waste water and millions of tons of coal ash, all of which could be treated and recycled or processed. The entire area is saturated. It is my opinion that all of the contaminated materials within the flood plain of the Muddy River should be dug up and removed.

Historically speaking, one could drink from the Muddy River knowing it was safe. The river is a place of life for all, including fish, turtles, muskrats, beaver, and all other animals that come to drink. To not adequately protect the Muddy River for future generations would be a travesty.

Respectfully,



Vernon Lee, Tribal Member
Moapa Band of Paiutes



UNITED STATES DEPARTMENT of the INTERIOR



FISH AND WILDLIFE SERVICE
Nevada Fish and Wildlife Office
1340 Financial Boulevard, Suite 234
Reno, Nevada 89502-7147
(775) 861-6300 ~ Fax: (775) 861-6301

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DEC 03 2003

ENVIRONMENTAL PROTECTION

December 1, 2003
File No. EC 31.4.1.1

Mr. John Heggeness
Nevada Division of Environmental Protection
Bureau of Water Quality Planning
333 West Nye Lane, Suite 138
Carson City, Nevada 89706

Dear Mr. Heggeness:

We have reviewed the Fact Sheet for Proposed Changes to Class Water Quality Standards, Nevada Administrative Code (NAC) 445A.118 through 445A.225 and the Rationale for the Proposed Revisions (Rationale). We have the following recommendations in relation to your current review and proposed changes to the regulations.

We believe that the following errors were made to the proposed changes to the regulations that were provided on pages 46 to 62 of the Rationale.

NAC 445A.124 Class A waters: Description; beneficial uses; quality standards. Page 46: In the table, the specifications for total dissolved solids (mg/l) should read " \leq 500 or one-third above that characteristic of natural conditions (whichever is less)." In footnote 2 to the table, the three concentrations appear to be in error and should be changed (in order of listing) to the following: 0.05 mg/l, 0.025 mg/l, and 0.10 mg/l.

NAC 445A.124 Class B waters: Description; beneficial uses; quality standards. Page 52: In the table, the specifications for total dissolved solids (mg/l) should read " \leq 500 or one-third above that characteristic of natural conditions (whichever is less)."

NAC 445A.124 Class C waters: Description; beneficial uses; quality standards. Page 56: In item number 2 of this section, change "water" to "waters." In the table, the numerical values for specifications for Fecal coliform should all be preceded by " \leq ." For consistency with the reading

Mr. John Heggeness

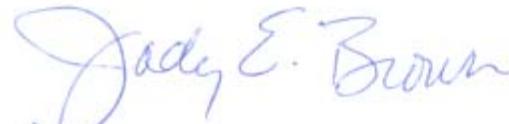
File No. EC 31.4.1.1

for other class waters, the specifications for Total Phosphorus should read " ≤ 0.33 mg/l" and the words "Must not exceed" should be deleted. In the table the specifications for total dissolved solids (mg/l) should read " ≤ 500 or one-third above that characteristic of natural conditions (whichever is less)."

We are continuing to coordinate with the Nevada Department of Wildlife regarding the listing of additional streams as Class Waters where threatened species of fish are known to occur as well as streams needed for their recovery in the near future. As we discussed with you on December 1, 2003, we will provide this information to you by mid-January 2004. Please contact us if this timetable is not adequate.

Please contact me or Stanley Wiemeyer at (775) 861-6300 if you have any questions.

Sincerely,


for Robert D. Williams
Field Supervisor

