

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street  
San Francisco, CA 94105-3901

May 16, 2012

John Heggeness  
Nevada Division of Environmental Protection  
901 S. Stewart Street, Suite 4001  
Carson City, Nevada 89701

Dear Mr. Heggeness,

Thank you for the opportunity to comment on the public review document: Draft Nevada's 2008-10 Water Quality Integrated Report (Public Draft IR), dated March 2012. The enclosure to this letter provides U.S. Environmental Protection Agency (EPA) comments on the State's Public Draft IR. This letter does not provide EPA's final review or approval of Nevada's 2008-10 Water Quality Integrated Report.

We appreciate the work completed by the Nevada Division of Environmental Protection (NDEP) on preparing the Draft, and look forward to receiving a Nevada's 2008-10 Water Quality Integrated Report for EPA review. If you have questions on the enclosed comments, in preparation of the final 2008-10 Integrated Report, please contact me at (415) 972-3452, or Susan Keydel at (415) 972-3106.

Sincerely,

Janet Hashimoto  
Manager, Standards and TMDL Office

Enclosure

Enclosure

EPA commends the Nevada Division of Environmental Protection (NDEP) on the preparation of the Draft Nevada's 2008-10 Water Quality Integrated Report (Public Draft IR), dated March 2012, which integrates the 303(d) and 305(b) information into a single Integrated Report (IR). We also congratulate NDEP on the development and release of the Nevada Assessed Water 2008-10 Web Map application, which was very helpful in reviewing this Public Draft IR.

EPA offers the following comments on the public Draft Nevada's 2008-10 Water Quality Integrated Report (Public Draft IR), dated March 2012.

1. In the Public Draft IR, NDEP has provided summaries of portions of the Clean Water Act regarding water quality control programs, standards, point source discharge pollution and non-point source pollution. EPA has not commented on these summaries, and absence of comment does not imply concurrence with these interpretations; should questions arise, EPA will rely on the regulations and statutes.

**NDEP Response: Comment noted.**

2. USDA's Natural Resources Conservation Service (NRCS) National Water Quality Initiative has identified four NV watersheds for NRCS EQIP funds to implement conservation practices to help provide cleaner water by targeting nutrients.

8-digit HUC Name	12-digit HUC Name	12-digit HUC #
Huntington Creek	Red Spring No. 10	160401030603
South Fork Humboldt River	Stoddard Creek	160401030901
South Fork Humboldt River	Rattlesnake Creek	160401030902
South Fork Humboldt River	South Fork Reservoir	160401030903

(<http://usda.gov/wps/portal/usda/usdahome?contentid=2012/05/0146.xml&contentidonly=true> )

In the Public Draft IR, two of these waterbodies are identified as impaired (Category 5): the South Fork Reservoir (impaired for DO) and reaches of Huntington Creek (impaired for DO, TP and Temp). Rattlesnake Creek, assumed to be part of "Humboldt River, South Fork and Tributaries", was identified as Category 1, Fully Supported, yet has only one sampling location identified in the Nevada Assessed Water 2008-10 Web Map application. Stoddard Creek was not found in the Public Draft IR. We encourage Nevada to take advantage of the opportunity provided by the National Water Quality Initiative to obtain sufficient water quality data to support full assessment, and to begin implementation for cleaner waters.

**NDEP Response:**

**NDEP has attempted to coordinate with the Natural Resources Conservation Service (NRCS) for implementation of the National Water Quality Initiative (NWQI). However, NRCS has provided very little information regarding the projects. Without detailed information on the location and types of best management practices being implemented it would be impossible for NDEP to design and conduct an appropriate monitoring program. Potential opportunities through the NWQI will only be realized if NRCS becomes a much more cooperative and collaborative partner.**

3. In the Public Draft IR, Section 3.5, Total Maximum Daily Load Program, NDEP identifies two conditions that must usually be met before NDEP initiates the TMDL process: a confirmation of water quality impairment, and "interested stakeholders in the watershed willing to

implement the TMDL. [and] In most cases, NDEP will only allocate staff and funding resources to developing NPS-related TMDLs in watershed where there is interest and funding by local, state or federal resource management agencies, other entities or landowners willing to address the problems." EPA encourages NDEP to build stakeholder interest and capacity for implementation to address impairments. Such an opportunity exists in the areas identified under the above-mentioned USDA NRCS National Water Quality Initiative.

**NDEP Response:**

**NDEP continually works to build stakeholder interest for TMDL development and implementation. Specific to the NWQI, it is impossible for NDEP to garner interest without knowledge of who the stakeholders are. As stated above, potential opportunities through the NWQI will only be realized if NRCS becomes a much more cooperative and collaborative partner.**

Comments regarding Attachment 5, Delisted Waters

4. Humboldt River from Woosley to Rodgers Dam (NV04-HR-07-C) is proposed for delisting of iron, due to insufficient information (code 4a), however, this waterbody was not found in the Exceedance reports (e.g., the "Rolling Three Year Counts for Toxics Aquatic Life Report 1). EPA requests additional information to support this proposed delisting.

**NDEP Response:**

**Humboldt River from Woosley to Rodgers Dam (NV04-HR-07-C)**

**Four of 4 samples exceed the iron 96-hour criterion of 1000 µg/l (1050 µg/l, 1400 µg/l, 1460 µg/l and 1350 µg/l collected 1999, 2000, 2001, and 2002, respectively). All were grab samples, not composite samples within a 96-hour period.**

**NDEP does not consider a single grab sample to be representative of 96-hour chronic conditions and has determined that at least 2 samples are needed within a 4-day period for an appropriate assessment of chronic standards. A vast majority of the toxic samples in the assessment database do not meet this condition.**

**However, NDEP recognizes that grab samples which consistently exceed the standard may be indicative of chronic water quality impairment. Therefore, waters for which grab sample data exceed the chronic standard more than 25% of the time will remain or be placed in Category 5. A minimum of 3 samples and 2 exceedances are required to be considered impaired.**

**The magnitude of exceedance is also considered. Waters for which grab sample data exceed the standard less than 25% of the time, but for which a significant number of the samples substantially exceed the standard may remain or be placed in Category 5 based on best professional judgment.**

**Waters for which single grab samples exceed the 96-hour standard but have not exceeded the 25% criteria to list (and are not listed due to best professional judgment) have been placed in Category 1, fully supported.**

**Based on the above criteria, NDEP will not delist the Humboldt River, Woosley to Rodgers Dam, for iron.**

5. Beaver Creek is listed as Category 1- Fully Supported (Waterbody ID NV04-HR-122 was changed to NV04-HR-25-A-06, part of the Maggie Creek tributaries). However, the "Beneficial Uses Exceeded for Temperature" report shows this waterbody segment had exceedances of the NAC Single Value Standard at all stations measured, and a cumulative total of 326 exceedances over the assessment period (10/1/2002 to 9/30/2009), which could imply impairment. EPA requests additional information to support this proposed delisting.

**NDEP Response:**

**Beaver Creek (NV04-HR-25-A 06)**

**Of the 6,987 days sampled, 326 days (less than 5% of the days) exceed the temperature standard of 20° C. NDEP is delisting Beaver Creek for temperature because the standard is being met more than 95% of the time.**

6. Shoshone Creek (NV03-SR-03) is proposed for delisting of phosphorus (total). However, in the Aquatic Life Cold Water Report, sample result for 8/29/2007 fails the NAC standard (should be red). Therefore, this parameter demonstrates exceedances (meets binomial method criteria of 4 or more exceedances for 20 samples), and should not be eligible for delisting.

**NDEP Response:**

**Shoshone Creek (NV03-SR-03)**

**The water quality standards for the Snake Basin were updated in 2010. At that time all the water quality standards were shown as less than (for example the total phosphorus (TP) standard was < 0.1 mg/l). To be consistent with all other standards in Nevada, NDEP updated the standards for the Snake waters to less than or equal to (now the TP standard is ≤ 0.1 mg/l).**

**The TP value for 08/29/2007 is 0.1 mg/l which meets the standard. NDEP is delisting Shoshone Creek for TP because the standard is being met.**

7. Several proposed delisting reasons cite footnote 4c ("2006 data did not support listing; all samples in evaluation period were non-detect"). There is insufficient data to assess, or delist, the following waterbodies. EPA requests additional information to support delisting.
  - a. Mason Valley Wildlife Area, North Pond (NV09-WR-13-C-01) is proposed for selenium delisting. However, only one selenium sample is reported.

**NDEP Response:**

**Mason Valley Wildlife Area, North Pond (NV09-WR-13-C 01)**

**NDEP is not proposing to delist for selenium, since the waterbody was not listed for selenium in 2006.**

**North Pond was listed for zinc in error in 2006 as the three samples collected between October 2000 and October 2002 were all less than 50 µg/l. Please see the "Rolling Three Year Counts for Toxics Aquatic Life Report for 10/1/2000 to 9/30/2005" in the 2006 303(d) List. NDEP is delisting North Pond for zinc to correct the error.**

- b. Jack Creek (NV03-OW-28-A) is proposed for zinc delisting. However data to support this was not found. This waterbody is identified as Category 5 due to impaired Aquatic Life in Attachment 3 - Waterbody Assessment Results, yet it was not listed in Attachment 4 - Category 5 Waters; nor was it found in the "Rolling Three Year Counts for Toxics Aquatic Life" reports. Further, the Nevada Assessed Water 2008-10 Web Map tool did not include any sampling points or assessed data for this waterbody.

**NDEP Response:**

**Jack Creek (NV03-OW-28-A)**

This waterbody was listed in error in 2006. There are several Jack Creeks in the Snake Basin. This Jack Creek flows into Harrington Creek and then into the South Fork Owyhee River and was confused with Jack Creek (NV03-JR-64\_00) that flows into the Jarbidge River. There is no data (or assessment report) for Jack Creek, NV03-OW-28-A, for any time period from either NDEP or outside agencies. NDEP is delisting the waterbody to correct the error.

Jack Creek (NV03-JR-64\_00) was also listed for Zinc in 2006, and is being delisted in 2008 – 2010 because it is meeting the zinc water quality standard.

8. Data are not sufficient to support the following delisting assessments, and EPA requests additional information to support these proposed delistings:
  - a. A "segment change" is cited as the reason for delisting Quinn River, South Fork (NV02-BL-11-A-02) for phosphorus. The Aquatic Life Cold Water Report indicates only 2 samples are available during the 2002 to 2009 assessment period. This waterbody-pollutant combination should be considered Category 2 - Some Uses Attained, until sufficient data are available to evaluate if it is fully attaining for phosphorus.

**NDEP Response:**

**Quinn River East and South Forks (NV02-BL-11-A\_01 and NV02-BL-11-A\_02)**

In the 2006 303(d) List, the Quinn River East Fork (NV02-BL-11-A\_00) and South Fork (NV02-BL-29) were evaluated separately and the East Fork was listed for TP based on 2 of 2 samples exceeding the phosphorus standard. The South Fork (NV02-BL-29) had no data and was not listed. For the 2008-10 IR NDEP changed the waterbody Id for the South Fork to NV02-BL-11-A\_02.

For the 2008 – 2010 IR, 2 of 3 East Fork samples exceed the TP standard. Two samples are also now available for the South Fork and both samples meet the TP standard.

Based on the data, the East Fork (NV02-BL-11-A\_01) will continue to be listed for phosphorus and the South Fork (NV02-BL-11-A\_02) is placed in Category 1, all uses supported.

- b. Meeting water quality standards was the reason given for delisting both Meadow-Valley Wash (NV13-CL-32) and Muddy River (NV13-CL-11-01) for phosphorus. However, phosphorus data were not found for these waters in either the Aquatic Life Warm Water Report or the Aquatic Life Cold Water Report to support this assessment.

**NDEP Response:**

**Meadow Valley Wash (NV13-CL-32)**

The TP standard is an annual average of  $\leq 0.1$  mg/l. TP annual averages for Meadow Valley Wash were 0.1 mg/l in 2003 and 0.06 mg/l in 2007. NDEP will delist for TP because the data shows the standard is being met.

**Muddy River (NV13-CL-11-01)**

The TP standard is an annual average of  $\leq 0.1$  mg/l. TP annual averages for Muddy River were 0.02 mg/l in 2007 and 0.03 mg/l in 2008. NDEP will delist for TP because the data shows the standard is being met.

- c. Galena Creek (NV06-SC-50-A) is proposed for delisting zinc. However, this waterbody is not included in the Exceedance reports (so no data evaluation is available to support this proposed delisting).

**NDEP Response:**

**There are three sections of Galena Creek:**

- **Upper Galena Creek (NV06-SC-50-A\_00) from its origin to the east line of section 18, T. 17 N., R. 19 E., M.D.B. & M.**
- **Middle Galena Creek (NV06-SC-51-B\_00) 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 of the SW 1/4 of section 2, T. 17 N., R. 19 E., M.D.B. & M**
- **Lower Galena Creek (NV06-SC-52-C\_00) from gaging station number 10-348900, located in the SW 1/4 of the SW 1/4 of section 2, T. 17 N., R. 19 E., M.D.B. & M., to its confluence with Steamboat Creek**

**There is no zinc data evaluation report for Upper Galena Creek simply because there is no data. Upper Galena Creek was erroneously over listed by EPA in 2004 based on data collected in Lower Galena Creek. NDEP is delisting Upper Galena Creek to correct the error.**

**Note, all three segments of Galena Creek either have no data (Upper Galena Creek) or data indicates the waterbody meets water quality standards (Middle and Lower Galena Creek). NDEP will delist the Middle and Lower Galena Creeks because the data shows the standard is being met.**

9. Several water bodies have been proposed for delisting where the delist reason can be generalized as "insufficient information so further monitoring is needed" (Attachment 5. delisting reason cites footnotes 4a, 4b, 4d, and 4e). We request further information from NDEP on these proposed delistings, and additionally on NDEP's assurance to conduct sufficient monitoring to be able to assess waters in accordance with standards. A number of these delisted waters are identified below.
  - a. Cadmium - delisting reason 4a (Insufficient information - 96 hour exceeded with grab samples - Further monitoring needed) is cited for Lahontan Reservoir (NV08-CR-46) and Walker Lake (NV09-WR-11). Based on information available to EPA (the "Rolling Three Year Counts for Toxics Aquatic Life Report 1"), Lahontan Reservoir only has cadmium data from 2002 and 2003 (none to represent October 2004 to the end of the assessment period, 2009); Walker Lake has over 50 samples for each 3-year assessment period, with no exceedances for the assessment periods characterizing 2004 to 2009.

**NDEP Response:**

**NDEP does not consider grab sample data to be representative of 96-hour chronic conditions. Most waters for which single grab samples exceed the 96-hour standards have been placed in Category 3 - waters needing additional data in order to make an impairment decision. However, NDEP recognizes that grab samples which consistently exceed the standard may be indicative of chronic water quality impairment. Therefore, waters for which grab sample data exceed the chronic standard more than 25% of the time will remain or be placed in Category 5.**

**Lahontan Reservoir (NV08-CR-46)**

The cadmium water quality standard was exceeded in 2 of 44 samples (5%). Additionally both exceedances were at the reporting limit. Based on the above criteria, NDEP will delist Lahontan Reservoir for cadmium.

Note: the only data available for Lahontan Reservoir is from May 2003 through September 2005. NDEP initiated a detailed sampling program for Lahontan Reservoir in 2012.

**Walker Lake (NV09-WR-11)**

Twelve of 159 samples (7.5%) exceeded the cadmium standard. The standard has not been exceeded since March 2004. NDEP will delist Walker Lake for cadmium.

- b. Iron - delisting of the following waterbodies is proposed citing 4a {Insufficient information - 96 hr. exceeded with grab samples -further monitoring needed):
  - i. Wildhorse Reservoir (NV03-OW-25-B) was delisted, as data reportedly meet water quality standards. However, 3 of 5 rolling 3-yr assessment periods had two or more (> 2) exceedances.

**NDEP Response:**

**Wildhorse Reservoir (NV03-OW-25-B)**

All samples exceeding the iron water quality standard of 1,000 µg/l were collected from the boat dock (close to shore influenced by wave action). In 2006, NDEP began sampling out on the water away from the shoreline, and discontinued sampling from the dock.

All samples collected away from shoreline influences are below the water quality standard. The shoreline samples are not representative of lake wide conditions. NDEP is delisting Wildhorse Reservoir for iron because the standard is being met lake wide.

- ii. Edgewood Creek (NV06-TB-33) and Little Humboldt River South Fork (NV04-LH-49-B) were proposed for delisting. However, they were not found in the "Rolling Three Year Counts for Toxics Aquatic Life Report 1".

**NDEP Response:**

**Edgewood Creek NV06-TB-33\_00 and NV06-TB-86\_00**

The entire length of Edgewood Creek (no waterbody Id) was listed for iron in 2002 and 2004. Due to revisions to the NAC in 2006, Edgewood Creek was split into two reaches:

**NV06-TB-33\_00, Edgewood Creek from its origin to Palisades Drive; and  
NV06-TB-86\_00, Edgewood Creek from Palisades Drive to Lake Tahoe.**

Both of these reaches were listed for iron in 2006.

The USGS collected data from 1981 through 2002 for the upper segment (NV06-TB-33\_00). From 1997 through 2001, 48 of 139 samples (35%) collected from upper Edgewood Creek (NV06-TB-33\_00) exceeded the 96-hour iron standard. Therefore, NDEP will continue to list NV06-TB-33\_00, Edgewood Creek from its origin to Palisades Drive for iron.

The USGS collected data from 1984 through 2002 for the lower segment (NV06-TB-86\_00). From 1997 through 2001, only 16 of 124 samples (13%) collected from lower Edgewood Creek (NV06-TB-86\_00) exceeded the 96-hour iron standard. Therefore, the lower segment, NV06-TB-86\_00, was listed in error in 2002 and 2004. NDEP will delist iron on Edgewood Creek from Palisades Drive to Lake Tahoe, NV06-TB-86\_00.

**Little Humboldt River S. F. (NV04-LH-49-B)**

Waterbody was listed for iron in 2006 based on 2 grab samples (10/2000 = 1040 mg/l and 6/2001 = 1140 mg/l). Despite the paucity of data, NDEP will not delist the S.F. Little Humboldt River for iron. NDEP initiated a detailed sampling program in the area in 2012.

- iii. Lahontan Reservoir (NV08-CR-46) had 2 of 5 rolling 3-yr assessment periods with numerous exceedances of the 96 hr. values. However, no data are available for the last 3 rolling 3-yr assessment periods characterizing 2004 to 2009.

**NDEP Response:**

**Lahontan Reservoir (NV08-CR-46)**

The 96-hour iron water quality standard was exceeded in 34 of 44 samples (77%). NDEP will not delist Lahontan Reservoir for iron.

**Note: the only data available for Lahontan Reservoir is from May 2003 through September 2005. NDEP initiated a detailed sampling program for Lahontan Reservoir in 2012.**

- iv. Three or more of the 5 rolling 3-yr assessment periods had two or more exceedances of the 96 hr. values, despite insufficient data to meet the provision of >2 samples collected over a 4-day period for the following waters: Salmon Falls Creek (NV03-SR-02); Shoshone Creek (NV03-SR-03); Humboldt River segments (NV04-HR-01, -02, -03, -05, -08-D); Franktown Creek (NV06-SC-45-B); Steamboat Creek (NV06-SC-42-D); Edgewood Creek (NV06-TB-86); Incline Creek (NV06-TB-16); Brockliss Slough (NV08-CR-29); Carson River Lower (NV08-CR-13-C); Diagonal Drain (NV08-CR-24-C); Harmon Reservoir (NV08-CR-26-C); <Stillwater Marsh (NV08-CR-28-D); Walker River (NV09-WR-08), Las Vegas Wash (NV13-CL-06), Muddy River (NV13-CL-11-02, NV13-CL-12-01 and NV13-CL-12-02), and Virgin River (NV13-CL-09).

**NDEP Response:**

**NDEP does not consider a single grab sample to be representative of 96-hour chronic conditions and has determined that at least 2 samples are needed within a 4-day period for an appropriate assessment of chronic standards.**

**However, NDEP recognizes that grab samples which consistently exceed the standard may be indicative of chronic water quality impairment. Therefore, waters for which grab sample data exceed the chronic standard more than 25% of the time will remain or be placed in Category 5. A minimum of 3 samples and 2 exceedances are required to be considered impaired.**

**The magnitude of exceedance is also considered. Waters for which grab sample data exceed the standard less than 25% of the time, but for which a**

significant number of the samples substantially exceed the standard may remain or be placed in Category 5 based on best professional judgment.

Waters for which single grab samples exceed the 96-hour standard but have not exceeded the 25% criteria to list (and are not listed due to best professional judgment) have been placed in Category 1, fully supported.

**Salmon Falls Creek (NV03-SR-02)**

Five of 18 samples (28%) exceed the 96-hour iron standard. NDEP will not delist for iron.

**Shoshone Creek (NV03-SR-03)**

Four of 12 samples (33%) exceed the 96-hour iron standard. NDEP will not delist for iron.

**Humboldt River segments (NV04-HR-01, -02, -03, -05, -08-D)**

**Osino NV04-HR-01**

Four of 13 samples (31%) exceed the 96-hour iron standard. NDEP will not delist for iron.

**Palisade NV04-HR-02**

Seven of 26 samples (27%) exceed the 96-hour iron standard. NDEP will not delist for iron.

**Battle Mountain NV04-HR-03**

Twenty nine of 84 samples (35 %) exceed the 96-hour iron standard. NDEP will not delist for iron.

**Imlay NV04-HR-05**

Five of 5 samples (100%) exceed the 96-hour iron standard. NDEP will not delist for iron.

**Humboldt Sink NV04-HR-08\_D**

Five of 8 samples (63%) exceed the 96-hour iron standard. NDEP will not delist for iron.

**Franktown Creek (NV06-SC-45-B)**

Four of 14 samples (40%) exceed the 96-hour iron standard. NDEP will not delist for iron.

**Steamboat Creek (NV06-SC-42-D)**

Ten of 34 samples (29%) exceed the 96-hour iron standard. NDEP will not delist for iron.

**Edgewood Creek (NV06-TB-86)**

See Edgewood Creek above, under comment 9, b, ii.

**Incline Creek (NV06-TB-16)**

Three of 14 samples (21%) exceed the 96-hour iron standard. NDEP will delist for iron.

**Brockliss Slough (NV08-CR-29)**

Nine of 13 samples (69%) exceed the 96-hour iron standard. NDEP will not delist

for iron.

**Carson River Lower (NV08-CR-13-C)**

Eight of 33 samples (24 %) exceed the 96-hour iron standard. NDEP will delist for iron.

**Diagonal Drain (NV08-CR-24-C)**

Six of 9 samples (67%) exceed the 96-hour iron standard. NDEP will not delist for iron.

**Harmon Reservoir (NV08-CR-26-C)**

Seven of 8 samples (88%) exceed the 96-hour iron standard. NDEP will not delist for iron.

**Stillwater Marsh (Stillwater Point Reservoir) (NV08-CR-28-D)**

Five of 5 samples exceed the 96-hour iron standard (100 %). However, all samples were collected from the shoreline. NDEP does not consider shoreline samples to be representative of lake wide conditions. NDEP will delist.

**Walker River (NV09-WR-08)**

Three of 15 samples (20%) exceed the 96-hour iron standard. NDEP will delist for iron.

**Las Vegas Wash (NV13-CL-06)**

Five of 424 samples (1%) exceed the 96-hour iron standard. NDEP will delist for iron.

**Muddy River at Glendale (NV13-CL-11-02)**

Thirteen of 20 samples (65%) exceed the 96-hour iron standard. NDEP will not delist for iron.

**Muddy River at Wells Siding (NV13-CL-12-01)**

Nine of eleven samples (82%) exceed the 96-hour iron standard. NDEP will not delist for iron.

**Muddy River at Lake Mead (NV13-CL-12-02)**

Thirteen of 55 samples (24%) exceed the 96-hour iron standard. NDEP will delist for iron.

**Virgin River (NV13-CL-09)**

Eleven of 47 samples (23%) exceed the 96-hour iron standard. NDEP will delist for iron

- c. Selenium - Both Pine Creek (NV04-HR-58) and Chalk Creek (NV06-TR-77) had at least 4 of 5 rolling 3-yr assessment periods exceeding the 96-hour criterion (see Rolling Three Year Counts for Toxics Aquatic Life Report 2).

**Pine Creek (NV04-HR-58)**

Five of 17 samples (29%) exceed the 96-hour selenium standard. NDEP will not delist for selenium.

### **Chalk Creek (NV06-TR-77)**

**Five of 7 samples (71%) exceed the 96-hour selenium standard. NDEP will not delist for selenium.**

- d. Fecal Coliform - For three waters in the Carson River Basin [ Brockliss Slough (NV08-CR-29), Carson River West Fork (NV08-CR-06). and Clear Creek (NV08-CR-18-B)], fecal coliform is proposed for delisting where the SV criterion exceeded 20% of samples. However, data were not available to assess the 30-day or Annual Geometric Mean, where the standard is considered to be not supporting only when both criteria are exceeded. Text in Section 4.5, Assessment Methodology, states "[i]f no or insufficient data was available, the use was not assessed" (page 13), and waters with insufficient information to assess any uses were identified as Category 3.

#### **NDEP Response:**

**All of these waters were listed in 2006 for exceeding the fecal coliform contact recreation standard. Fecal coliform is a legacy standard on these waters since *E. coli* standards were established in 2002 to protect contact recreation. These waters all meet the *E. coli* standard. The State Environmental Commission changed the fecal coliform standards, statewide, to a Single Value  $\leq 1,000$  No./100 ml to protect uses other than contact recreation in October 2012. None of these waterbodies are exceeding the new fecal coliform standard.**

**See the discussion of the Fecal Coliform section in the 2008 – 10 Integrated Report (Assessment Methodology, Section 4.5) for a complete description of Nevada's fecal coliform standards.**

**Generally NDEP did not have 5 samples in a 30 day period to evaluate either the geometric mean or the single value standards. When 5 data samples in a 30 day period were not available:**

- **For a 30 day geometric mean, NDEP evaluated the standard using an annual geometric mean; and**
- **For a single value criteria, NDEP evaluated the standard against grab sample data exceeding the single value standard more than 25% of the time throughout the full assessment period.**

**A minimum of 2 data points was required for each averaging period. For a single value standard, a minimum of 3 samples with 2 exceedances was required to be considered potentially impaired.**

#### **Brockliss Slough (NV08-CR-29)**

**The fecal coliform single value standard is not exceeded. NDEP will delist for fecal coliform.**

#### **Carson River West Fork (NV08-CR-06)**

**The fecal coliform single value standard is not exceeded. NDEP will delist for fecal coliform.**

#### **Clear Creek (NV08-CR-18-B)**

**The fecal coliform single value standard is not exceeded. NDEP will delist for fecal coliform.**

10. The Public Draft IR states that listings of impaired waters "include non-support determinations made for some waterbodies based on mercury fish tissue data collected by the Nevada Department of Wildlife (NDOW) and for which fish consumption advisories have been issued by the Nevada Division of Health (NDH). NDH advisories are based on the Federal Drug Administration (FDA) fish tissue mercury action level of 1.0 mg/kg wet weight. EPA utilizes current fish consumption advisories, based on segment specific information, to demonstrate impairment of CWA section 101(a) "fishable" uses. To be protective of all exposed populations, including consumers of noncommercial freshwater/estuarine fish, EPA developed the criterion of 0.3 mg methylmercury/kg in fish tissue, which should not be exceeded. EPA will evaluate the final IR submittal based on our criterion.

**NDEP Response:**

**NDEP includes a waterbody in Category 5 based on the following criteria:**

- (1) Adequate documentation shows that water quality standards contained in the Nevada Administrative Code 445A.070 – 445A.2324 were not being met during the period October 1, 2002 through September 30, 2009.**
- (2) Adequate documentation shows that water quality standards contained in the Code of Federal Regulations (40 CFR 131.36) adopted for Nevada by the U.S. Environmental Protection Agency were not being met during the period October 1, 2002 through September 30, 2009.**
- (3) A health advisory for fish consumption has been issued by the Nevada State Health Division.**
- (4) The waterbody is included on the National Priorities List (Superfund) due to mercury contamination from historic mining activities.**

**Nevada has not adopted the EPA recommended criterion of 0.3 mg methylmercury/kg in fish tissue. EPA does not have the authority to impose this standard on Nevada and it is not appropriate for EPA to evaluate Nevada's final 2008-10 IR based on the EPA recommended criterion. The fish tissue criterion for methylmercury to protect human health Fact Sheet (January 2001) states: "EPA's recommended human health water quality criteria are not regulations themselves, and do not impose legally binding requirements." The IR should be evaluated according to Nevada's State adopted and EPA approved standards and Nevada's other listing criteria.**

11. NDEP use of the "binomial" approach - EPA's 2006 guidance (EPA 2006a) clarifies that EPA does not recommend the application of a 10% exceedance threshold, particularly within the context of a binomial statistical test, unless the 10% rule is specifically consistent with the State water quality standards (e.g., for a standard expressed as a 90th percentile value). Additionally, the binomial approach should be used only with conventional pollutants, and not be applied to toxics. EPA will evaluate the final IR submittal based on these guidelines.

**NDEP Response:**

**Nevada's approved water quality standards do not include specific assessment methodology for determining when a waterbody is impaired. The binomial methodology provides a practical and statistically valid approach for determining impairment.**

**Waterbodies were included in Category 5 if the acute toxic standards were exceeded two or more times during any three year block.**

**NDEP does not consider a single grab sample to be representative of 96-hour chronic conditions and has determined that at least 2 samples are needed within a 4-day period for an appropriate assessment of chronic standards. A vast majority of the toxic samples in the assessment database do not meet this condition.**

**However, NDEP recognizes that grab samples which consistently exceed the standard may be indicative of chronic water quality impairment. Therefore, waters for which grab sample data exceed the chronic standard more than 25% of the time will remain or be placed in Category 5. A minimum of 3 samples and 2 exceedances are required to be considered impaired.**

**The magnitude of exceedance is also considered. Waters for which grab sample data exceed the standard less than 25% of the time, but for which a significant number of the samples substantially exceed the standard may remain or be placed in Category 5 based on best professional judgment.**

**Waters for which single grab samples exceed the 96-hour standard but have not exceeded the 25% criteria to list (and are not listed due to best professional judgment) have been placed in Category 1, fully supported.**