

## **Enclosure**

### **EPA Decision Concerning Nevada's 2014 Clean Water Act Section 303(d) List: Responsiveness Summary and Final List of Water Bodies Added to or Revised on Nevada's List**

#### **Introduction**

On April 6, 2016, EPA took action on Nevada's 2014 Section 303(d) List, approving the State's inclusion of all waters and pollutants that the State identified as requiring a total maximum daily load (TMDL) and disapproving the State's omission of a portion of the South Fork of the Humboldt River, and revising the location of a previously-added portion of the North Fork of the Little Humboldt River, which both exceeded federal criteria for mercury in fish tissue. These waters, which EPA added and revised on the State's 2014 list of water quality limited segments requiring a TMDL, were identified in Table 1 of the enclosure of EPA's April 6, 2016 letter.

On April 6, 2016, EPA began the public comment period on this action on the Nevada 2014 303(d) list. EPA solicited public comment and provided notice of availability by posting EPA's public notice document on the EPA Region IX website; additionally EPA's public notice document was sent to all recipients on Nevada Division of Environmental Protection's (NDEP's) email list used to provide notice for Bureau of Water Quality Planning actions. EPA's comment period was for 37 days and closed on May 12, 2016.

Written comments were received from NDEP and the Elko County Association of Realtors (ECAR). EPA's responses to NDEP and ECAR comments are presented below.

#### **NDEP Comment:**

*"I am writing to express strong opposition to the U.S. Environmental Protection Agency's (EPA) proposed addition of the North Fork of the Little Humboldt River and the South Fork of the Humboldt River to Nevada's 2014 303(d) List. EPA's action is based on comparison of the fish tissue data for these waterbodies to the EPA recommended criterion of 0.3 mg methyl mercury/kg. However, Nevada has not adopted the criterion and is not required to use it to determine waterbody impairment.*

*Nevada's 2014 Integrated Report, as submitted to EPA in December 2015, meets all federal 303(d) listing requirements contained in 40 CFR 130.7. NDEP's 2014 303(d) List waters were determined by evaluation of State adopted and EPA approved numeric water quality standards established under section 303 of the Clean Water Act. Additionally, NDEP used health advisories issued by the Nevada State Health Division (NSHD) and Superfund designations to evaluate the narrative "free from" standards contained in Nevada Administrative Code 445A.121 to determine if waterbody uses were being met.*

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*Nevada is under no legal obligation to use the EPA recommended criterion for listing purposes. The methyl mercury fish tissue criterion Fact Sheet (January 2001) states: 'EPA's recommended human health water quality criteria are not regulation themselves, and do not impose legally binding requirements.' Further, EPA indicates the water quality criteria recommendations are intended as guidance to States in developing water quality standards (Federal Register Notice January 8, 2001). As Nevada (or EPA acting for Nevada) has not officially adopted fish tissue criteria, EPA has no authority to impose the recommended criteria on Nevada.'*

### **EPA Response:**

As described below, EPA concludes that listing a portion of the South Fork of the Humboldt River and a portion of the North Fork of the Little Humboldt River for mercury in fish tissue to Nevada's list of waters for which a TMDL is required is appropriate and meets the Federal criteria for listing under 40 CFR 130.7. EPA has determined that, for these waterbodies, the 2014 Section 303(d) list submitted by Nevada does not implement the narrative water quality standard for toxicity established by Nevada Administrative Code (NAC) 445A.121. EPA does not agree that it improperly applied the water quality criterion for the protection of human health for methyl mercury.

#### **1. Use of the EPA 'recommended' criterion**

CWA section 303(c)(1) provides that states and authorized tribes review their water quality standards at least every three years. At such time, states and authorized tribes are to adopt numeric criteria for all toxic pollutants for which EPA has published criteria under CWA section 304(a), where the discharge or presence of these pollutants could reasonably interfere with designated uses, under the conditions set forth in CWA section 303(c)(2)(B).

Mercury and related compounds are identified as toxic pollutants in EPA regulations (40 CFR 401.15). EPA's water quality criterion for methyl mercury, published in January 2001 under CWA section 304(a), is expressed as a fish tissue concentration value set at 0.3 milligrams methyl mercury per kilogram of wet-weight fish tissue, or 0.3 mg/kg. As explained in Water Quality Criterion for the Protection of Human Health: Methylmercury. Final. EPA-823-R-01-001 (2001b), this criterion represents the concentration of methyl mercury in freshwater and estuarine fish and shellfish tissue that should not be exceeded based on a consumption rate of 0.0175 kg fish/day, and derived using inputs designed to protect consumers of fish and shellfish among the general population. See, e.g. EPA-823-R-01-001, at pp. xvi, 5-25, 5-49, and 7-1,

Under CWA section 303(c), states and authorized tribes must adopt water quality criteria that protect designated uses. Nevada's 2014 Water Quality Integrated Report states:

*"Fish consumption is not a beneficial use cited in NAC 445A.120, although, it is protected through the narrative standards, 445A.121:*

*(4) Waters must be free from high temperature, biocides, organisms pathogenic to human beings, toxic, corrosive or other deleterious substances attributable to domestic or*

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*industrial waste or other controllable sources at levels or combinations sufficient to be toxic to human, animal, plant or aquatic life or in amounts sufficient to interfere with any beneficial use of the water...*” (See Nevada’s 2014 Water Quality Integrated Report, pg. 24.)

EPA recommended that the 2001 methyl mercury criterion be used in establishing or updating water quality standards for waters of the United States as part of the triennial review of standards to fulfill the requirements of CWA section 303(c)(2)(B) and 40 CFR part 131, and in issuing fish and shellfish consumption advisories. States and authorized tribes remain free to not use or to adjust EPA’s recommended criterion, provided that their water quality criteria for methyl mercury protect the designated uses and are based on a scientifically defensible methodology, considering bioaccumulation and local or statewide fish consumption (EPA 2010).

EPA guidance on how states and authorized tribes may comply with CWA section 303(c)(2)(B) (EPA 1994) provides three options for compliance:

- Option 1: States and authorized tribes may adopt statewide or reservation-wide numeric chemical-specific criteria for all toxic pollutants for which EPA has issued CWA section 304(a) criteria guidance.
- Option 2: States and authorized tribes may adopt numeric chemical-specific criteria for those stream segments where the state or tribe determines that the priority toxic pollutants for which EPA has issued CWA section 304(a) criteria guidance are present and can reasonably be expected to interfere with designated uses (e.g., a designated use of “fishing” is interfered with by nonattainment of the mercury water quality criterion).
- Option 3: States or authorized tribes may adopt a chemical-specific translator procedure that can be used to develop numeric criteria as needed.

As part of the three year review of standards required by Clean Water Act section 303(c), EPA expects states and authorized tribes to include new or revised criteria for methyl mercury in their waters. (EPA 2010)

Nevada has not adopted EPA’s recommended criterion of 0.3 mg methyl mercury/kg in fish tissue; nor has it adopted a scientifically defensible alternative methodology, considering bioaccumulation and local or statewide fish consumption, that EPA has approved as a water quality standard under CWA section 303. Accordingly, EPA used the narrative water quality standard for toxicity in NAC 445A.121 to determine if water quality standards are being implemented in the South Fork of the Humboldt River and North Fork of the Little Humboldt River. After comparing (a) fish tissue concentration data for methyl mercury in fish taken from these waterbodies with (b) the criterion for methyl mercury published under CWA section 304(a), EPA concludes that the narrative standard is not being met. Table 1, below, identifies the species in each waterbody for which the average concentration of methyl mercury exceeds 0.3 mg/kg of fish tissue.

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## **2. NSHD fish consumption advisories based on the FDA fish tissue mercury action level**

Nevada's State Health Division (NSHD) issues consumption advisories based on the 1979 U.S. Food and Drug Administration (FDA) fish tissue mercury action level of 1.0 mg methyl mercury/kg wet weight fish tissue, developed for human consumption of commercial fish.

*"FDA based its action level on the lowest level at which adverse effects were found to occur in adults. ...FDA toxicologists are developing a more complete database for addressing low-level methyl mercury exposures from fish; however they consider the 1 ppm limit to provide an adequate margin of safety. This doesn't mean that it is safe to regularly and frequently eat fish that contain 1 ppm methyl mercury."* (FDA, 1995)

EPA and FDA have agreed that the use of FDA action levels for the purposes of making local advisory determinations is inappropriate.

*An FDA action level is "an administrative guideline or instruction to the agency field unit that defines the extent of contamination at which FDA may regard food as adulterated. An action level represents the limit at or above which FDA may take legal action to remove products from the marketplace.*

*The methodology used by FDA in establishing action levels or tolerances is to determine the health risks of chemical contaminants in fish and shellfish that are bought and sold in interstate commerce rather than in locally harvested fish and shellfish (Bolger et al., 1990). FDA action levels and tolerances are indicators of chemical residue levels in fish and shellfish that should not be exceeded for the general population who consume fish and shellfish typically purchased in supermarkets or fish markets that sell products that are harvested from a wide geographic area, including imported fish and shellfish products. However, the underlying assumptions used in the FDA methodology were never intended to be protective of recreational, tribal, ethnic, and subsistence fishers who typically consume larger quantities of fish than the general population and often harvest the fish and shellfish they consume from the same local waterbodies repeatedly over many years."* (EPA 2000).

The practice of using FDA action levels for the purposes of making local advisory determinations has been discouraged by EPA and FDA in favor of EPA's risk-based approach to derive local fish consumption advisories. (EPA 2000)

EPA does not agree that reliance on the FDA's 1979 fish tissue action level is sufficiently protective of consumers of fish from local water bodies.

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**ECAR Comment:**

*“These comments are on behalf of the 100+ members of the Elko County Association of Realtors. We live and work in the area where these proposed actions impact us and we hope you will seriously consider our comments.*

**First point:** *The EPA has no authority over waters that are not navigable or tributaries thereto. The Humboldt River System is not navigable and historical records document that it never has been. The river starts in Nevada and ends in Nevada. The Commerce Clause of the Constitution of the United States was added to insure that a state could not restrict commerce on a water course that crossed state borders. We find no other laws that would give the EPA authority over waters in our State that are not navigable.*

**Second point:** *Nevada has a Division of Environmental Protection that has the authority over state waters, the waters of the South Fork of the Humboldt River and the Little Humboldt River. If they have not determined that mercury is an issue, then that is our state's right and not the right of the federal government.*

*If you disagree with our comments in this regard, please provide the documentation that gives the EPA authority over waters of the Humboldt River system.”*

**EPA Response:**

EPA is taking action pursuant to 40 CFR 130.7(d) to identify waters required to be listed where existing controls are not stringent enough to implement applicable water quality standards. For the purposes of this listing decision, the “applicable water quality standards” are “those water quality standards established under section 303 of the Act, including numeric criteria, narrative criteria, waterbody uses, and antidegradation requirements.” 40 CFR 130.7(b)(3). The listing procedures do not require EPA (or the State) to look behind the propriety of those applicable standards for the water body at issue, but rather concern only whether those standards are being impaired. That is all that EPA is deciding in this action. Analysis of whether any given water body is a “navigable water” or “water of the United States” for purposes of CWA jurisdiction is often a complex, fact intensive inquiry that does not lend itself to be subsumed within a CWA section 303(d) listing decision.

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**Final List of waterbody-pollutant combinations added to and revised on Nevada's list of water quality-limited segments still requiring a TMDL**

Table 1, below, presents the final list of water body-pollutant combinations that EPA added to Nevada's list of water quality-limited segments still requiring a TMDL pursuant to Clean Water Act, section 303(d) and 40 CFR 130.7(d)(2).

**Table 1: Water bodies and associated pollutants added/revised by EPA to Nevada's 2014 Section 303(d) list due to mercury in fish tissue impairment**

<b>Water Body Name</b>	<b>Water Body ID</b>	<b>EPA Assessment Summary</b>
Humboldt River, South Fork: From South Fork Reservoir to the Humboldt River	NV04-SF-19-B_02	Average concentration exceeded 0.3 mg methyl mercury/kg fish tissue.
Little Humboldt River, North Fork: From its origin to the National Forest (revised from: Little Humboldt River, North Fork: From the National Forest Boundary to Chimney Reservoir)	NV04-LH-45-A_00 (revised from: NV04-LH-46-B_00)	Average concentration exceeded 0.3 mg methyl mercury/kg fish tissue.

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## References

### EPA's Partial Approval and Partial Disapproval

EPA 2014. EPA's Partial Approval and Partial Disapproval Letter and Enclosure for Nevada's 2014 Section 303(d) List to John Heggeness, NDEP from Tomás Torres, Director, Water Division EPA Region 9. April 6, 2016.

### Submittal

Nevada Division of Environmental Protection, 2015. Transmittal of the 2014 Water Quality Integrated Report. Letter to Dave Guiliano, USEPA and supporting materials, including the Integrated Report, and responsiveness summary, dated December 21, 2015.

Nevada Division of Environmental Protection, 2016. Supplemental data submitted on January 15, January 23, and February 23.

Nevada Division of Environmental Protection, 2014. Mercury in Fish Tissue data submitted.

Nevada Department of Wildlife, 2016. Sampling location data submitted.

### Other Documents

40 CFR Part 130 Water Quality Planning and Management.

EPA 1978. December 28, 1978 Federal Register Notice, Total Maximum Daily Loads Under Clean Water Act, finalizing EPA's identification of pollutants suitable for TMDL calculations, 43 Fed. Reg. 60662.

EPA 1985. January 11, 1985 Federal Register Notice, 40 CFR Parts 35 and 130, Water Quality Planning and Management: Final Rule, 50 Fed. Reg. 1774.

EPA 1991. Guidance for Water Quality Based Decisions: The TMDL Process.  
EPA 440/4-91-001

EPA 1994. *Water Quality Standards Handbook: Second Edition*, (EPA-823-B-12-002; March 2012). <http://water.epa.gov/scitech/swguidance/standards/handbook/index.cfm>

EPA 2000. *Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories Volume 2: Risk Assessment and Fish Consumption Limits Third Edition*. EPA 823-B-00-008; November 2000.  
[http://water.epa.gov/scitech/swguidance/fishshellfish/techguidance/risk/upload/2009\\_04\\_23\\_fish\\_advice\\_volume2\\_v2cover.pdf](http://water.epa.gov/scitech/swguidance/fishshellfish/techguidance/risk/upload/2009_04_23_fish_advice_volume2_v2cover.pdf)

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EPA, 2001a. 2002 Integrated Water Quality Monitoring and Assessment Report Guidance, Robert H. Wayland III, Director, Office of Wetlands, Oceans and Watersheds, November 19, 2001.

EPA. 2001b. Water Quality Criterion for the Protection of Human Health: Methylmercury. Final. EPA-823-R-01-001. January 2001.

[http://water.epa.gov/scitech/swguidance/standards/criteria/aqlife/methylmercury/upload/2009\\_01\\_15\\_criteria\\_methylmercury\\_mercury-criterion.pdf](http://water.epa.gov/scitech/swguidance/standards/criteria/aqlife/methylmercury/upload/2009_01_15_criteria_methylmercury_mercury-criterion.pdf)

EPA, 2001c. Human Health Criteria - Methylmercury Fish Tissue Criterion Fact Sheet; January 2001.

<http://water.epa.gov/scitech/swguidance/standards/criteria/aqlife/methylmercury/factsheet.cfm>

EPA, 2003. Guidance for 2004 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act; TMDL-01-03, Diane Regas, Director, Office of Wetlands, Oceans and Watersheds, July 21, 2003.

EPA, 2005. Guidance for 2006 Assessment, Listing, and Reporting Requirements Pursuant to Sections 303(d), 305(b), and 314 of the Clean Water Act. Diane Regas, Director, Office of Wetlands, Oceans and Watersheds, July 29, 2005.

EPA, 2006. Information Concerning 2008 Clean Water Act Sections 303(d), 305(b) and 314 Integrated Reporting and Listing Decisions. Diane Regas, Director, Office of Wetlands, Oceans and Watersheds, October 12, 2006.

EPA, 2009. Information Concerning 2010 Clean Water Act Sections 303(d), 305(b) and 314 Integrated Reporting and Listing Decisions. Suzanne Schwartz, Director, Office of Wetlands, Oceans and Watersheds, May 5, 2009.

EPA. 2010. Guidance for Implementing the January 2001 Methylmercury Water Quality Criterion. EPA 823-R-10-001. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

FDA. 1995. FDA Fact Sheet "Mercury in Fish: Cause For Concern?" Revised May 1995.

[http://www.fda.gov/OHRMS/DOCKETS/ac/02/briefing/3872\\_Advisory%207.pdf](http://www.fda.gov/OHRMS/DOCKETS/ac/02/briefing/3872_Advisory%207.pdf)

Nevada Department of Wildlife. Fishing in Nevada Webpage, accessed in March, 2016.

<http://www.ndow.org/Fish/>