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July 15, 2014

Via e-mail to: [ow-docket@epa.gov](mailto:ow-docket@epa.gov)

Water Docket  
Environmental Protection Agency  
Mail Code 2282-IT  
1200 Pennsylvania Ave. NW  
Washington, DC 20460  
Attn: Docket ID No. EPA-HQ-OW-2004-0019

**Re: Docket ID No. EPA-HQ-OW-2004-0019: Comments on Draft Aquatic Life Ambient Water Quality Criterion for Selenium – Freshwater 2014**

Dear Sir or Madam:

The following comments are submitted on behalf of the Western Coalition of Arid States (WESTCAS). We appreciate the opportunity to provide comments on the draft selenium criteria as any changes to the federal water quality standards will impact the operation, and management of wastewater treatment facilities.

WESTCAS is a coalition of approximately 125 water and wastewater districts, cities, towns, and professional organizations focused on water quality and water quantity issues in the States of Arizona, California, Colorado, Nevada, New Mexico, Texas and regional water quality and quantity agencies. Our mission is to encourage the wise use and development of water resources in our member states where there is little rain in many months and frequently less than 12 inches for the entire year. Considering this reality, our particular focus is working to ensure that Federal water policy and regulations are appropriate and reflect the reality of water resources in the Arid West.

***The Voice of Water Quality in the Arid West***

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# The Western Coalition of Arid States

## W E S T C A S

Selenium is a bioaccumulative contaminant with a dietary exposure route for chronic toxicity. Given that water column selenium is not an accurate measurement of chronic selenium toxicity, and because bioaccumulation factors (BAFs) vary by site, WESTCAS is pleased that EPA is recommending that the tissue-based chronic criterion should take primacy over water column data.

It is imperative that guidance is written, peer reviewed, and published to standardize the time of year when data collection is performed and type of samples collected and that the fish species sampled are appropriate, analyzed properly, and are consistent between studies. This guidance should be published as a stand-alone document prior to implementation of the criterion, or incorporated into the criteria document, to ensure states will apply a national tissue criterion as intended by the U.S. EPA. We also recommend that EPA publish a companion document that discusses, in more general terms, the flexibilities available to states in implementing the revised selenium criteria, similar to the document published by EPA regarding the recently revised ammonia criteria (*Flexibilities for States applying EPA's Ammonia Criteria Recommendations*, EPA-820-F-13-001, April 2013).

In the West, where water is extremely limited, we have a large number of ephemeral or intermittent streams. In many of these streams fish populations are not necessarily limited by water quality but by water quantity and habitat. Water column concentrations in much of the arid West are highly impacted by significant deposits of selenium-rich materials that naturally elevate selenium concentrations in aquatic ecosystems. Consequently, although anthropogenic activities (e.g., irrigation) may facilitate mobilization of selenium from these materials, native fish species undoubtedly have a different exposure and evolutionary history with regard to selenium. As such, BAFs likely vary considerably in this region as BAFs are known to decrease when high concentrations of naturally occurring selenium are present. EPA should provide guidance on how to incorporate naturally elevated background concentrations of selenium into site or region specific criteria.

Nationwide water column standards are not appropriate in areas such as the arid West with naturally elevated selenium concentrations. The majority of the data used in the probability distribution of protective water column concentrations are derived from studies in the arid West; however, the criteria developed are based on the 20th percentile, which includes primarily the data from studies conducted in North Carolina. The majority of the arid West data, which were primarily above the 20th percentile, were ignored when EPA chose to base the national criterion on the small east coast data subset. EPA should encourage states (e.g. flexibilities to states document) that want to use water column standards for permitting to use site specific determinations to develop water

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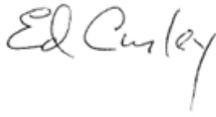
column standards due to the number of compounding factors related to stream-to-stream, and potentially site-to-site differences in BAFs, resident fish populations, and geology affecting surface water concentrations. Basing a nationwide water column criterion on a percentile of the calculated protective site specific concentrations as determined in the Draft Criterion Document for Selenium creates a situation where the water column criterion is overprotective for much of the arid West.

Site-specific criteria should be an integral component for the implementation of a tissue based chronic selenium criterion and should be clearly defined in the Draft Criterion Document, especially for use in the arid West where naturally high background concentrations and limited water quantity is common.

WESTCAS supports the comments provided by the Colorado Wastewater Utility Council, as provided in their attached document, *Review of EPA 2014 draft Se criteria document, EPA 822-P-14-001*, prepared by GEI Consultants, Inc.

Your consideration of these comments is appreciated

Respectfully submitted,



Ed Curley, President  
WESTCAS

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