

# Table 1: Changes to Toxic Criteria

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Below are changes being considered to Table 1 of the Texas Surface Water Quality Standards (TSWQS). These criteria are updated every revision cycle based on current scientific information and the issuance of new or updated EPA 304(a) criteria documents. Changes for cadmium aquatic life criteria are currently under consideration. All other aquatic life criteria will remain unchanged.

## Cadmium

The TSWQS currently has freshwater and saltwater acute and chronic criteria for cadmium. The freshwater criteria are equation-based and are dependent on site-specific hardness. The EPA finalized its revised national criteria in 2016, which recommended revisions to the equations for freshwater (acute and chronic) and updated the saltwater acute and chronic criteria.

The federal recommendations are based on peer reviewed toxicity data conducted up to this point in time. Staff investigated recalculating the federal criteria by removing non-native species from the dataset but found that doing so would not be in accordance with EPA's 2013 *Revised Deletion Process for the Site-Specific Recalculation Procedure for Aquatic Life Criteria* (EPA-823-R-13-001).

The following criteria changes to the current entry to cadmium are currently under consideration:

- Freshwater acute criterion:  $w e^{(0.9789(\ln(\text{hardness}))-3.866)}$  µg/L (changed from the current criterion equation of  $w e^{(1.0166(\ln(\text{hardness}))-2.4743)}$ );
- Freshwater chronic criterion:  $w e^{(0.7977(\ln(\text{hardness}))-3.909)}$  µg/L (changed from the current criterion equation of  $w e^{(0.7409(\ln(\text{hardness}))-4.719)}$ );
- Saltwater acute criterion: 33w µg/L (changed from the current criterion of 40w µg/L); and
- Saltwater chronic criterion: 7.9w µg/L (changed from the current criterion of 8.75w µg/L).

The conversion factor equations at the beginning of the criteria calculations for freshwater acute and chronic criteria and inclusion of the “w” multiplier for water-effect ratio results for all cadmium criteria remain unchanged.