Water Board Training Academy, Course WQ120

Water Quality Goals

Course Agenda

Video Part 1

1) Basis and form of water quality standards
   a) Porter-Cologne Act – legislative declarations
   b) Definitions of water quality standards, water quality control, pollution, and nuisance
   c) Water quality standards in California
      i) Beneficial uses
      ii) Water quality objectives – numeric and narrative
   d) State Water Board Resolution No. 88-63, "Sources of Drinking Water" Policy
   e) Federal promulgated standards
      i) National Toxics Rule
      ii) California Toxics Rule
      iii) State Implementation Plan

Video Part 2

   f) Implementation plans
      i) Clean Water Act requires numeric translator procedures for narrative standards
      ii) California examples of numeric translator procedures
2) Selecting assessment thresholds to implement water quality standards
   a) Use of numeric thresholds to implement narrative water quality objectives
   b) Sources of numerical thresholds
      i) Chemical constituents objective
      ii) Toxicity objective – human health and aquatic life
      iii) Tastes and odors objective
   c) Toxicology basics
      i) Dose-response relationships
      ii) Threshold versus non-threshold chemicals
      iii) USEPA weight of evidence classes for cancer risk
      iv) Calculating water quality numeric thresholds from health-based information
      v) Routes of Exposure
   d) Terminology review
3) Water Quality Goals
   a) *A Compilation of Water Quality Goals* staff report
   b) Water Quality Goals online
      i) Demonstration of intranet database and related information

Video Part 3

4) Assessment threshold selection algorithms
   a) Guiding principles
   b) Algorithm for groundwater
   c) Algorithm for inland surface waters
   d) Algorithm for enclosed bays and estuaries
   e) Algorithm for ocean waters
   f) Assessment threshold table

Video Part 4

5) Example of selecting assessment thresholds
6) Analytical quantitation limits
7) Additive toxicity criterion for multiple constituents
8) State Water Board Resolution No. 68-16, "Antidegradation" Policy
   a) Appropriate range of water quality to protect existing and future beneficial uses