WELCOME
"1st Quarterly"
SC Small Water Systems Forum

- New Hex. Chrom. VI Standards / General Water Quality Questions
- Sustainable Groundwater Management Act
- Drought; Water Conservation Requirements
- Metering/Submittal of Water Use Data
- Loans: RDUS, SRF, USDA
- Setting Rates
- Open Discussion

County of Santa Cruz
ENVIRONMENTAL HEALTH SERVICES
701 OCEAN STREET, ROOM 312, SANTA CRUZ, CA 95060-4073
(831) 454-2022 FAX: (831) 454-3128 TDD: (831) 454-2123

A New Hexavalent Chromium MCL,

Effective July 1st, 2014

Troy Boone – Drinking Water Program

Beginnings…

- Erin Brockovich (2000 – Julia Roberts)
  - Hexavalent chromium (Cr^{+6}) contamination in Hinkley, CA
  - PG&E financial settlement ($333 million) for town's residents
  - Much agitation in California State Legislature

What is it?

- Chromium is a naturally occurring element in rocks, animals, plants, soil; occurs predominantly as
  - Trivalent chromium (Cr^{+3}), essential to normal glucose, protein, and fat metabolism and thus an essential dietary element for humans
  - Hexavalent chromium (Cr^{+6}), used in making stainless steel, textile dyes, wood preservation, and for anti-corrosion, treatment of cooling tower water
- Human body reduces Cr^{+6} to Cr^{+3}
- USEPA has classified Cr^{+6} as a human carcinogen when inhaled because of results from animal studies

A Little History

- 1977 - MCL established by USEPA and adopted by California at 50 parts per billion for Total Chromium (includes both Cr^{+6} and Cr^{+3}); 1 ppb = about 1 drop of water in 250 chemical drums (3 seconds out of 100 yrs.)
- 1991 - USEPA raised federal MCL to 100 ppb
- 2000 – Julia Roberts wins Oscar for ‘Erin Brockovich’; Prompts California legislature to force MCL development
- 2000 – City of Glendale begins treatment studies for Cr^{+6}
- 2001 – California water utilities begin monitoring for Cr^{+6} under California UCMR

A Little More History

- March 2001 – CDHP requests that OEHHA prepare a Public Health Goal for Cr^{+6}
- May 2001 – National Toxicology Program (NTP) announces intent to conduct a long-term animal study to evaluate carcinogenicity of ingested Cr^{+6}
- October 2001 – SB 351 is signed by the Governor, requiring CDHP to adopt a Cr^{+6} MCL by 1/1/2004
- November 2001 – OEHHA announces intent to develop a Cr^{+6} PHG
- 2004 – Water Research Foundation publishes three Cr^{+6} reports

Still More History

- 2007 – NTP reports there to be sufficient evidence of carcinogenicity in rodents
- August 2009 – OEHHA releases draft PHG at 60 ng/L (parts per trillion; 1 ppt = 1 drop in 20 Olympic-sized pools)
- 2010 – USEPA announces in second Six-year Review of existing standards, no revision to Total Chromium MCL
- September 2010 – External review draft of USEPA's IRIS *Toxicological Review of Hexavalent Chromium*
- December 2010 – OEHHA releases revised draft PHG for Cr^{+6} at 20 ng/L (20 ppt)

Even More History

- December 2010 – Environmental Working Group releases report: *Chromium-6 is Widespread in US Tap Water*
  - Tested tap water in 35 cities
  - Range of positive tests: 30 ppt to 13 ppb
  - Cites WaterRF 2004 occurrence study
- April 3, 2011 – EWG press release: “Utilities Knew of Chrome-6 Contamination For Years”

Environmental Groups File Suit

- July 18, 2013 – NRDC, EWG file suit in Superior Court to force CDPH to propose and finalize a MCL for Cr^{+6}
- Court rules in plaintiffs' favor and requires CDPH to propose an MCL by August 31, 2013

History in the Making

- 8/23/2013: CDPH Proposes Cr^{+6} MCL at 10 ppb
- Water Industry Comments Due 10/13/2013
- AWWA CA-NV Section/CWA/ACWA
  - Coordinate comments
  - Hire two expert engineering firms to analyze the CDPH supporting evidence and produce technical documents
- Bottom Line: CDPH Vastly Underestimates Incidence, Compliance Costs of Cr^{+6}

History in the Making

- 20,000 comments received by CDPH
  - About 250 were “significantly distinct”
  - Remaining were form emails or post cards
- California Administrative Procedure Act allows up to one year to finalize a regulation (i.e., 8/23/2014)
- December 17, 2013
  - Court finds in favor of NRDC/EWG and orders CDPH to finalize MCL by April 15, 2014
  - If there are substantial changes to the rule, must finalize by June 15, 2014 and allow an additional 15-day comment period

History Made

- CDPH refutes, dismisses most comments
- Reiterates MCL of 10 ppb
- New MCL went into effect on July 1, 2014
- Where is USEPA on all this?
  - Not enough evidence in second six-year review (2010) to warrant a federal Cr^{+6} MCL, nor change the total chromium MCL
  - USEPA will await occurrence data on total chromium and Cr+6 under UCMR 3 (thru 2015)
  - Continued IRIS review of Cr^{+6}
  - No decision on Cr^{+6} anytime soon

Impact of New MCL

- For customers in affected service areas
  - Statewide capital costs - $4.1 billion
  - Annual O&M - $231 million
- Cal Water most affected of California IOUs
  - 25 wells affected at 10 ppb
  - Capital costs up to $66 million, O&M up to $11 million/yr
- All affected water utilities, agencies, municipalities, districts struggling with compressed compliance time frame

Regulatory Response

- Memorandum Account Effective on July 1, 2014
  - CA MCL of 0.010 mg/L (10 ppb) for Hexavalent Chromium becomes effective: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Lawbook.shtml
  - CWS & NTNC must comply with MCL
  - Monitoring: w/in 6 mo.s initiate monitoring, (on or before Jan. 1. 2015 monitor sources).
  - GW Sources: may use previous Chrom VI result, if w/in 2 years prior to effective date.

- Total Chromium Results: NOT for initial monitoring. But, for subsequent routine monitoring in lieu of Chrom VI = OK if… less than TTL Chrom detection limit for reporting (DLR) of 10 ug/L (ppb).

- If Chrom VI > MCL 10 ppb:
  - Quarterly Monitoring
  - Compliance based on running annual average
  - If a result >MCL, but <= 100 ug/L, contact EHS
  - >100 ug/L, contact EHS w/in 24 hrs

Revisions?

- Identifying best available treatment technologies
- SB 385 (Hueso):
  - Does- 5 yr variance, work toward compliance, Compliance Plan, & must inform customers and provide them w/ info re other sources of DW.
  - Does Not- Delay compliance efforts, exempt from compliance w/ MCL, or modify MCL of 10 ppb.

Thank You!

Loans

- State Water Resources Control Board: Workshops –
  - Proposition 1 Water Recycling Funding Program (WRFP) Workshop
  - RUS Loans: emailed out info on March 11, 2015 – 3 different loan rate levels – based on community $$$ and type of project:
    - Poverty Line - 2.25%
    - Intermediate - 3.00% &,
    - Market – 3.75%
    - Administered thru Rural Development Utilities Sercies (RDUS) – for specifics – www.rurdev.usda.gov/recd_map.html
  - SRF: CA State Revolving Fund - http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/
  - Drinking Water Loan & Grant Program - http://www.waterboards.ca.gov/water_issues/programs/grants_loans/
    - Riverside: March 24, 2015 -
    - Sacramento: March 30, 2015 – 9:30 to 3:00 - CalEPA HQ Bldg – 1001 I St. Sac.
      - Via web: http://www.calepa.ca.gov/broadcast

Water Rates

- Private Water Company vs. Mutual
- TMF Assessment Form:
  - http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/TMF.shtml

Special Event: CalTAP Fair

- Join us at the CalTAP Fair!
- March 26, 2015 – 8:30 a.m. to 4 p.m. (Sacramento area)
- Sacramento Marriott Rancho Cordova
- 11211 Point East Drive Rancho Cordova, CA 95742
- Come and learn about the California Technical Assistance Providers (CalTAP) programs that are supported by the California State Water Resources Control Board. These programs provide onsite technical assistance and free workshops for water professionals throughout the state, as well as other resources. The CalTAP Fair qualifies for six contact hours. (Lunch is one hour and on your own)