

# Riding California's Chromium-6 Regulatory Roller-Coaster

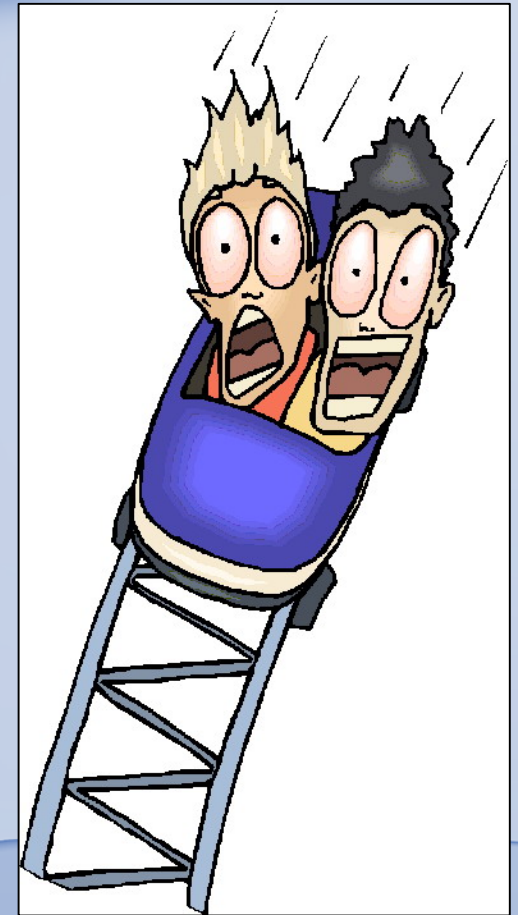


WESTCAS 2017 Fall Conference  
Tucson, Arizona  
October 26, 2017



# Cr6 Drinking Water MCL

- Adopted 10 ppb MCL effective 7/1/14
- Compliance monitoring required by 1/1/15
- Urgency bill needed to provide compliance option
- Water systems scramble to avoid violations



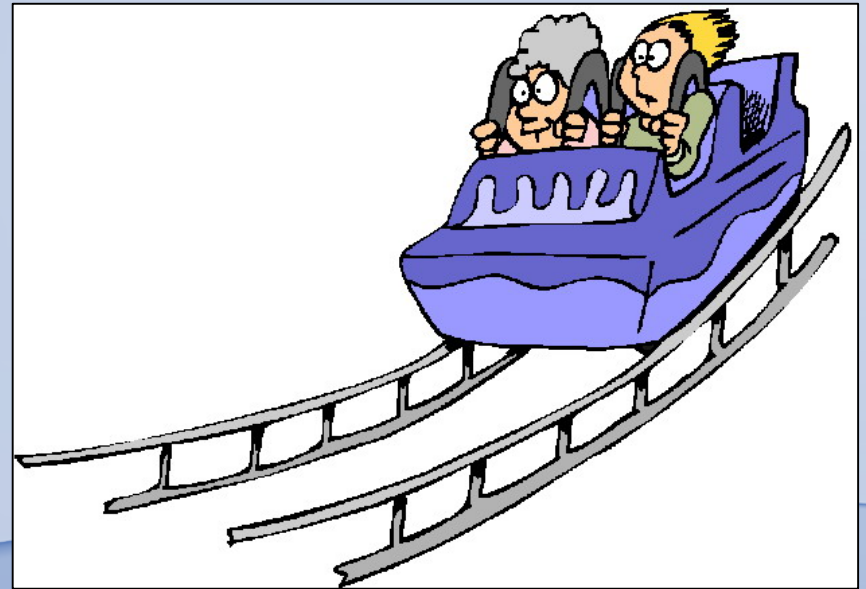
# Recent Cr6 MCL Activity

- June – Court orders State to withdraw MCL, determine economic feasibility & adopt new MCL
- July – State prepares and submits withdraw package
- Sept – MCL is withdrawn, compliance orders/plans no longer apply



# Future Cr6 MCL

- California – New MCL expected mid 2019
- EPA – Draft risk assessment still at starting line



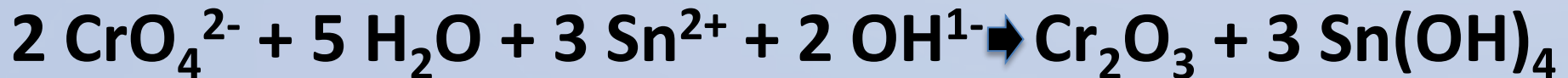
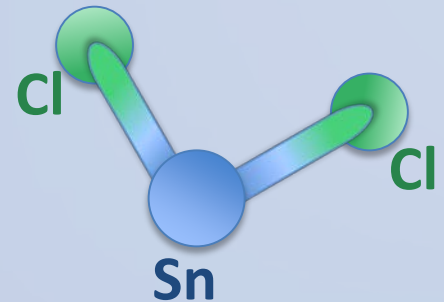
# Water System Activity

- Vast majority of impacted systems stopped compliance work
- Handful are operating plants
- Some finishing treatment studies
- Informed are all waiting for CVWD's demonstration test results

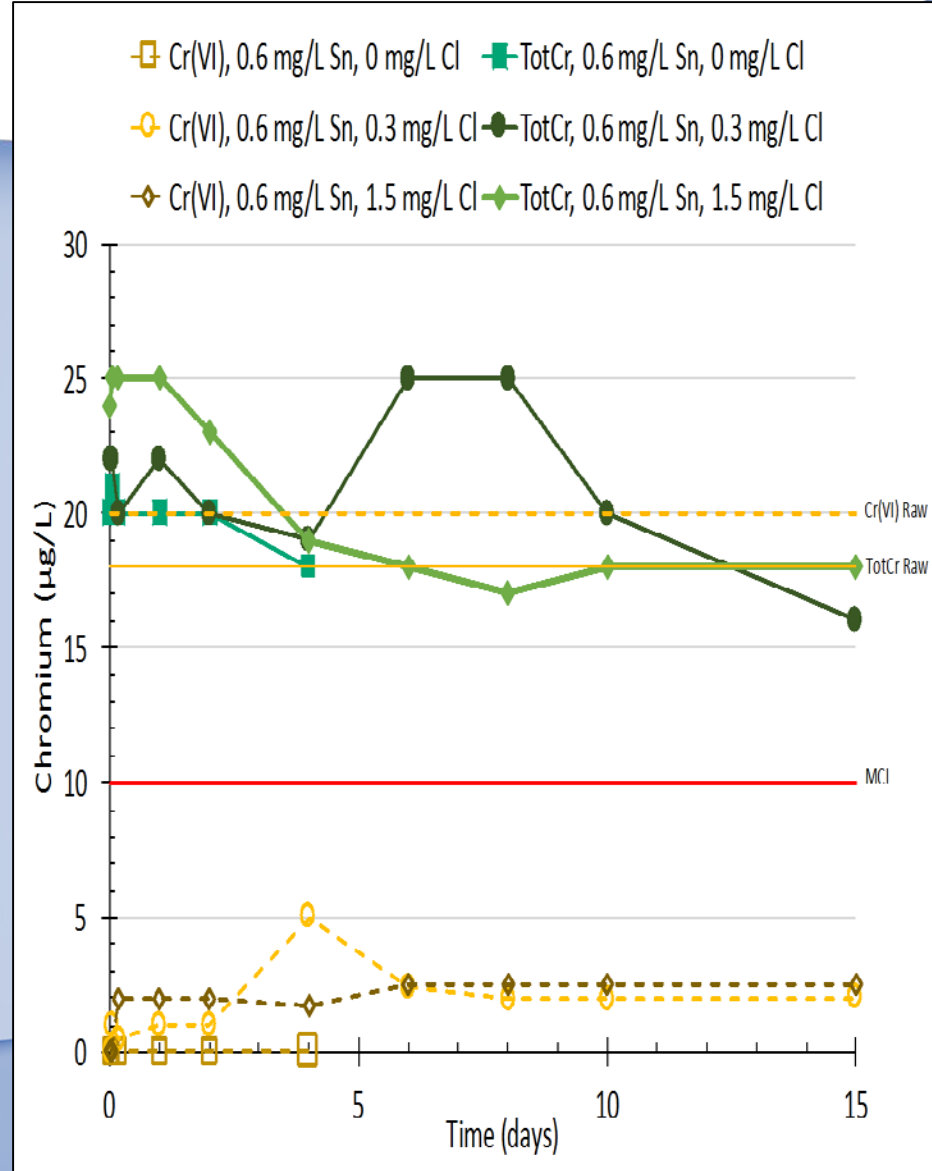
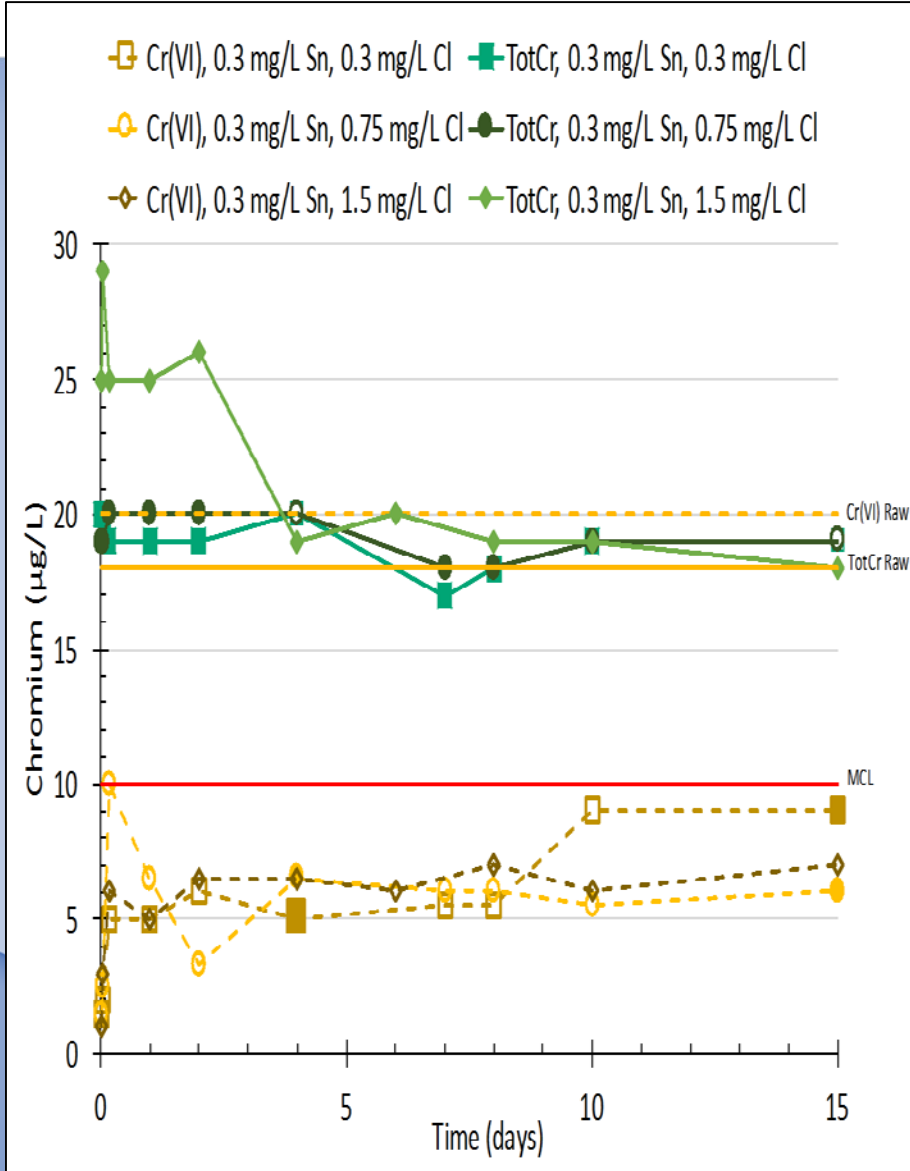


# Stannous Chloride (SnCl<sub>2</sub>) Alternative

- Salt made of tin & chloride (SnCl<sub>2</sub>)
- Approved drinking water additive
  - Solution used to protect pipes
- Stannous reduces Cr<sub>6</sub> to Cr<sub>3</sub>
  - Faster and better than other reductants (e.g., iron, vitamin C)



# Simulated Water System Test Results





# Sky Valley System Demonstration

- Sufficient Cr6 levels (16-20 ppb)
- Extended water System (15 miles)
- Only 3 active supply wells





# Test Plan

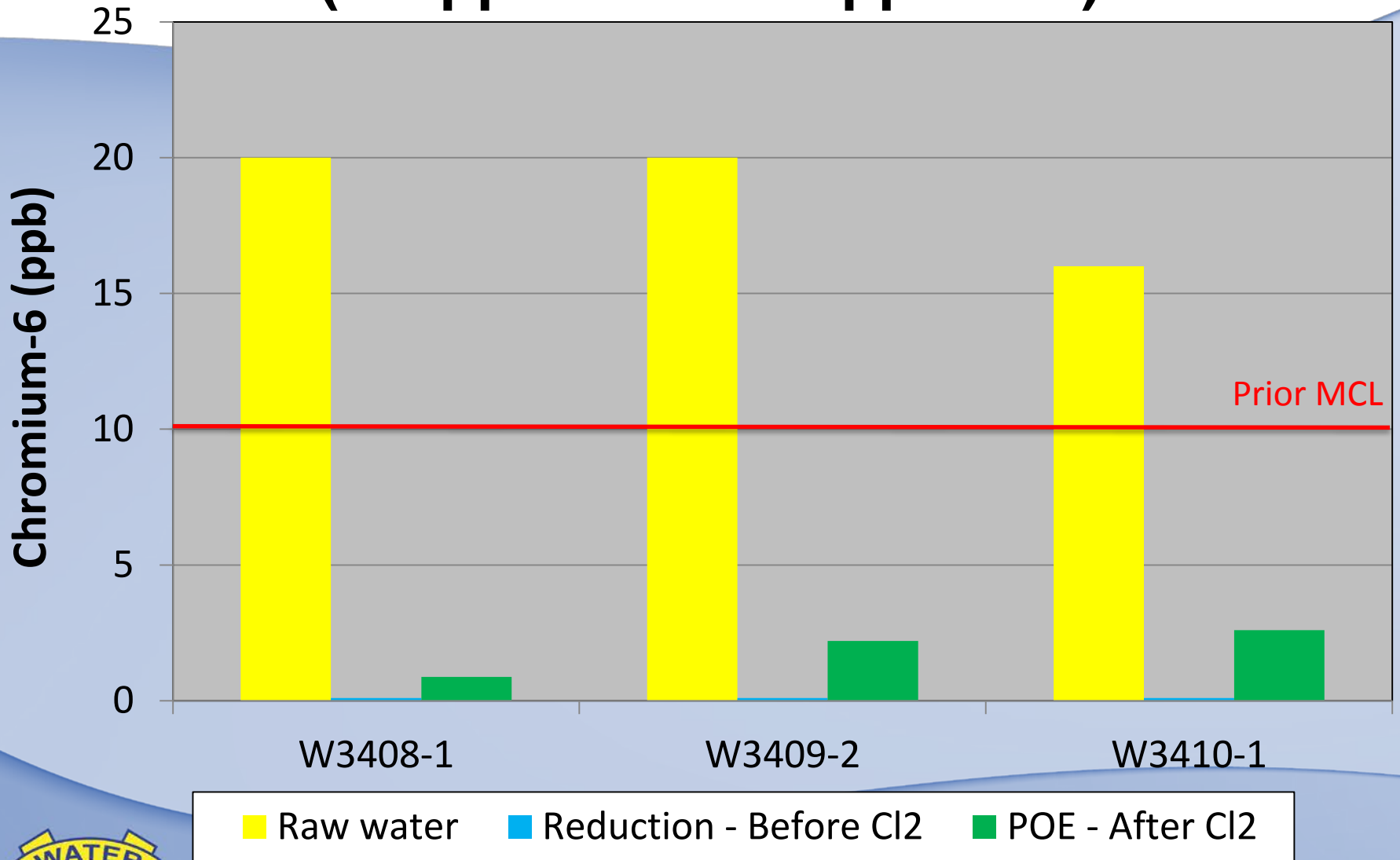
- Sample locations
  - Well site Point of Entry (POEs)
  - Mid water system
  - Maximum residence (reservoirs)
- Cr6, Total Cr, Sn, turbidity, residual chlorine, and pH – 3 times/weekly
- Flush water filtrate testing – start & end (optional)



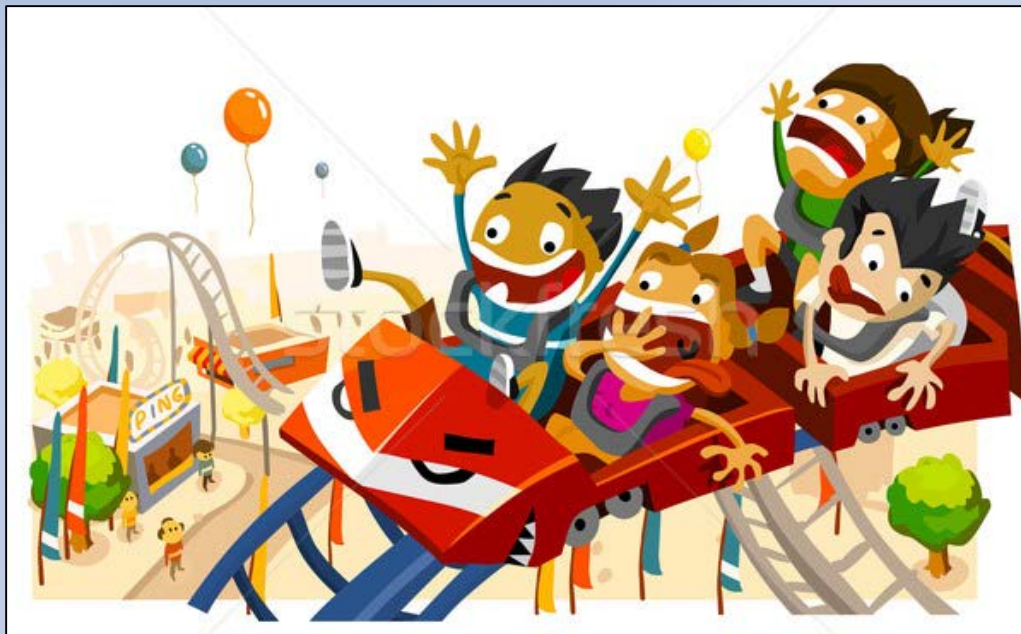
# CVWD Cr6 Reduction Demonstration Equipment



# Cr6 Reduction Calibration Test (0.5 ppm Sn & 0.5 ppm Cl2)







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