

Hexavalent Chromium Regulation

SWRCB – DDW

The Statutory Mandates for the Maximum Contaminant Level (MCL)

- Section 116365(a) of the Health & Safety Code requires each primary drinking water standard to be set *"at a level that is as close as feasible to the corresponding public health goal placing primary emphasis on the protection of public health...to the extent technologically and economically feasible..."*

The Public Health Goal (PHG)

- The Office of Environmental Health Hazard Assessment (OEHHA) establishes the Public Health Goals (PHGs) through risk assessment.
- The PHG is established at negligible risk levels, considering cancer and non-cancer health effects.
- For hexavalent chromium, the final PHG of 0.02 ppb was based on *no more* than 1 person in a population of 1,000,000 developing cancer.

The MCL Regulation and Cr(IV)

- Section 116365 of California's Safe Drinking Water Act requires an MCL to set as close to its PHG as technically and economically feasible.
- As a result, this led to an extensive cost-benefit analysis at various "candidate" MCLs, which took into consideration a number of factors, including but not limited to:
 - Occurrence data (Cr(IV) occurs naturally and is also man-made)
 - Treatment feasibility and costs
 - Costs of monitoring, analyses, and contaminant removal
 - Potential population exposed/affected

The MCL Regulation and Cr(VI)

(cont.)

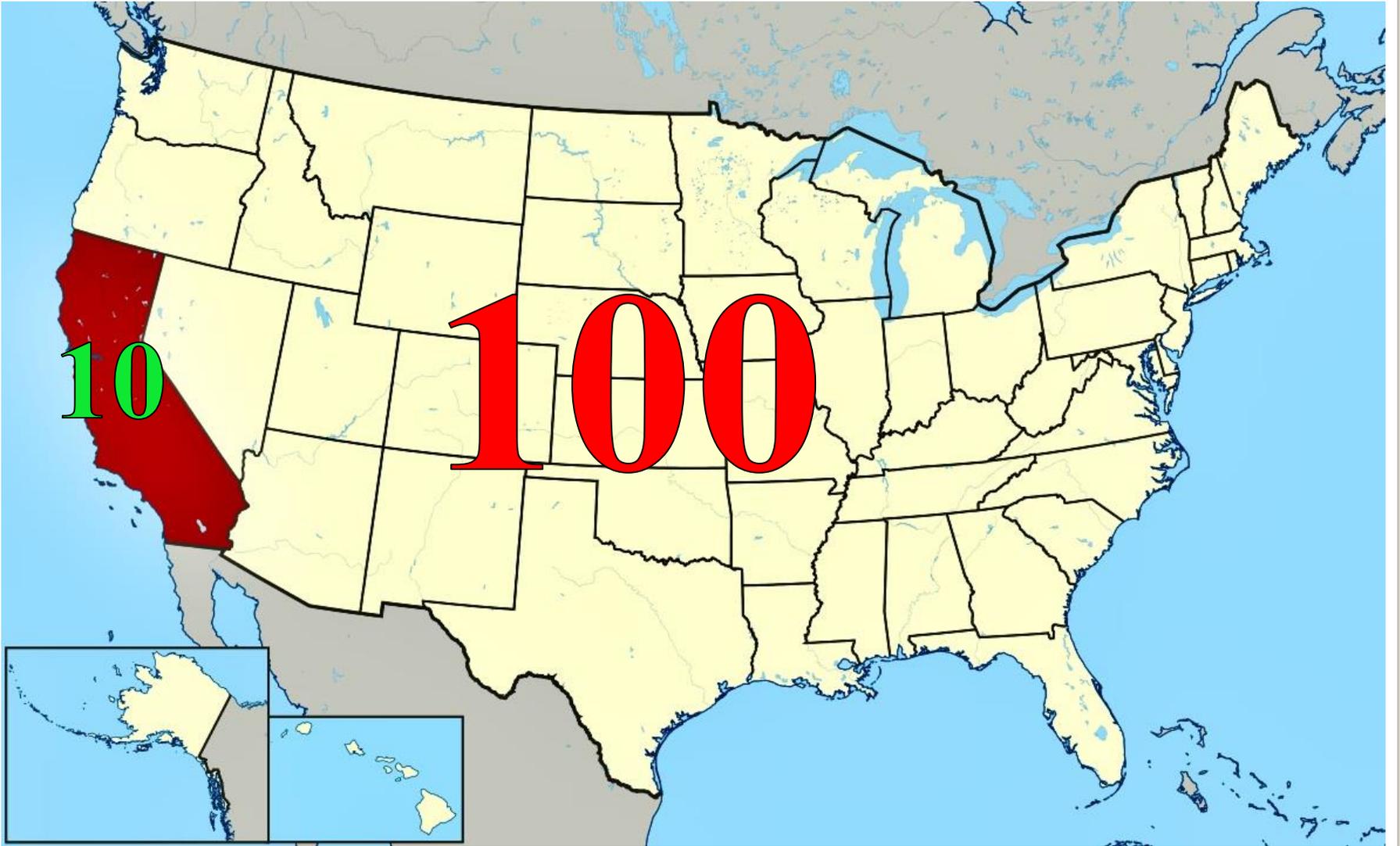
- Health and Safety Code § 116365(g) requires the Water Board to review its MCLs at least once every five years.
- The Water Board is to amend any standard if any of the following occur:
 - (1) Changes in technology or treatment techniques that permit a materially greater protection of public health or attainment of the PHG, or
 - (2) New scientific evidence indicates that the substance may present a materially different risk to public health than was previously determined.

2 numbers, 1 Regulation

- The MCL is the legal threshold limit on the amount of a substance that is allowed in public water systems under the Safe Drinking Water Act. **The MCL is enforceable based on regulation.**
- The PHG is a non-enforceable guideline.

2 numbers, 1 Regulation (cont.)

- OEHHA's guide to PHGs states: "..., a PHG is **not** a boundary line between a 'safe' and 'dangerous' level of a contaminant, and drinking water can still be considered acceptable for public consumption even if it contains contaminants at levels exceeding the PHG."



Summary

- On July 1st, 2014 - An MCL of 10 ppb for hexavalent chromium became effective.
- The MCL was the first and only in the country specific to hexavalent chromium.
- In California, the new MCL has lowered the potential exposure to hexavalent chromium from drinking water by 80% and by 90% of the current federal limit.

Summary (cont.)

- SB385 - Authorizes the State Water Resources Control Board (SWRCB) to grant a limited period of time for affected water systems to work toward achieving compliance without being deemed in violation as long as strict safeguards are met.