

# WATER QUALITY CHANGES DUE TO DROUGHT CONDITIONS (and HR2W concerns)

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February 4, 2019

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State Water Resources Control Board

# Topics

- Drinking Water Quality Impacts
  - Surface Water Supplies
  - Groundwater Supplies
  - Distribution Water Quality
- Human Right To Water
  - Portal Updates
  - Drought Related Issues



# Surface Water Quality Impacts

- Harmful Algal Blooms - Cyanotoxins
- USEPA Health Advisories
  - Microcystins
  - Cylindrospermopsin
- More Information:
  - [https://www.waterboards.ca.gov/drinking\\_water/programs/habs/](https://www.waterboards.ca.gov/drinking_water/programs/habs/)

| 10-DAY HEALTH ADVISORIES                                | LEVEL           |
|---|-----------------|
| <b>Microcystins</b>                                     |                 |
| Children pre-school age and younger (under 6 years old) | <b>0.3 µg/L</b> |
| School-age children (6 years and older)                 | <b>1.6 µg/L</b> |
| <b>Cylindrospermopsin</b>                               |                 |
| Children pre-school age and younger (under 6 years old) | <b>0.7 µg/L</b> |
| School-age children (6 years and older)                 | <b>3.0 µg/L</b> |

# Surface Water Quality Impacts

- Treatability Issues –
  - Nutrient loads
  - increased salinity
  - elevated TOC
  - pH changes
  - Fire impacts

# Ground Water Quality Impacts

- Declining groundwater levels in aquifers:
  - Changes direction of water flow, bringing different water quality to a well
  - Increased pumping in areas resulting from reduced surface supplies can also cause changes in water quality
  - Changing oxidation in the aquifer can release contaminants
- Hard rock wells:
  - Water mix from fractures changes, changing water quality

# Distribution System Water Quality Impacts

- Disinfection By-Product Formation
  - TTHMs and HAA5s
  - Increased organic loading in surface supplies
  - Increased age of water in distribution system due to water usage restrictions on customers

# Human Right to Water (HR2W)

On September 25, 2012, Governor Brown signed Assembly Bill (AB) [685](#), making California the first state in the nation to legislatively recognize the human right to water.

CA statute now recognizes that “every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.”

# HR2W Portal



- Managed by SWRCB DDW
- Provides metrics on:
  - Safe & Clean, Affordable, and Accessible
- Website:

[https://www.waterboards.ca.gov/water\\_issues/programs/hr2w/index.html](https://www.waterboards.ca.gov/water_issues/programs/hr2w/index.html)

# Drought Impacts to HR2W

- Water Quality Changes
- Affordability:
  - Cost of surface supplies can increase
  - Mandatory conservation may result in increased rates for less water
- Availability:
  - Suspension of Surface Water Rights
  - Well failures due to declining groundwater levels

# Contact Information

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Website:

[https://www.waterboards.ca.gov/drinking\\_water/programs/index.html](https://www.waterboards.ca.gov/drinking_water/programs/index.html)

HR2W Portal Contact

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