

Addressing Drinking Water Addressing Drinking Water Challenges in Urban, Small, and Disadvantaged Communities

Southern California Water Dialogue January 22, 2020

Jeff O'Keefe, P.E., Chief
Southern California Section
Division of Drinking Water
State Water Resources Control Board

Division of Drinking Water

Northern California Field Operations Branch

- North Coastal Section
- Northern California Section

Southern California Field Operations Branch

- Central California Section
- Southern California Section
- South Coast Section

Program Management Branch

- Technical Operations Section
- Environmental Laboratory Accreditation Section

Safe and Affordable Fund for Equity and Resilience (SAFER)

Branch

- Safe and Affordable Section
- Quality Assurance Section



Division of Drinking Water Responsibilities

- Oversight and compliance assistance of public water systems
- Enforcement of Safe Drinking Water Act and to ensure compliance with water quality standards (health based and aesthetic standards)
- Public water systems sanitary surveys (inspections) to assess condition and operations
- Issue public water system permits to operate drinking water supply sources and treatment facilities
- Develop and implement regulations (state and federal)
- DDW assists the Division of Financial Assistance in the implementation of funding programs for water system improvements
- DDW delegates authority to some counties for small water system programs (<200 service connections)

Responsibilities of Public Water Systems

- Provide a reliable and adequate supply of potable water
- Obtain a Water Supply Permit and comply with all conditions
- Use only approved drinking water sources
- Comply with design standards
- Employ State certified water treatment and distribution system operators at the appropriate grade
- Water quality monitoring and reporting
- Comply with drinking water quality standards (Maximum Contaminant Levels - MCLs)
- Provide treatment as necessary to comply with requirements

DDW's Enforcement and Compliance Tools

- Permits ensure compliance with operating conditions
- Sanitary Surveys inspect facilities, document deficiencies and require follow up corrective actions
- Formal Enforcement by Citations and Orders establishes milestones and deadlines to comply, can include fines
- Mandatory Consolidation Authority SB 88 (effective 6/2015),
 requires joining (physically or operationally) with another system
- Administrator Authority SB 552 (effective 9/2016), State contracts with (funds) and appoints an administrator to provide full management and control. SB 200 (effective 7/2019) provides funding source for administrator services.

Human Right to Water

- 2012 Gov. Brown signed Assembly Bill (AB) 685, recognizing the human right to water
- Water Code Section 106.3 "every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes."
- Right extends to all Californians, including disadvantaged individuals and groups and communities in rural and urban areas

CA Public Water Systems

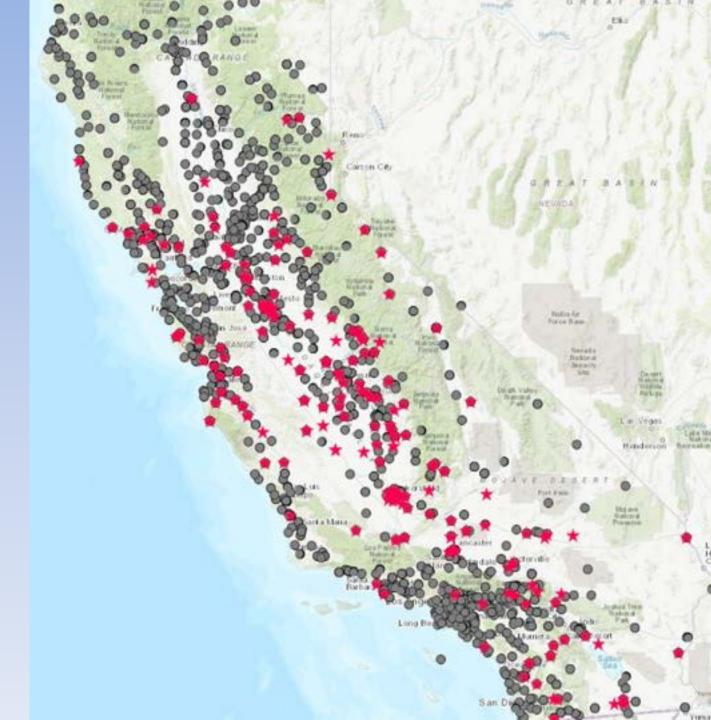
Type of System	Approximate #
COMMUNITY	3,000
Large (>3,300 people)	700
Small (>15 connections, <3,300 people)	2,300
NON-COMMUNITY	4,500
Non-transient	1,500
Transient	3,000
TOTAL	7,500

Type of System	Population	% of CA population
Large Water System >1000 connections	37 million	98%
Small Water System <1000 connections	400,000	1%

HR2Water Map

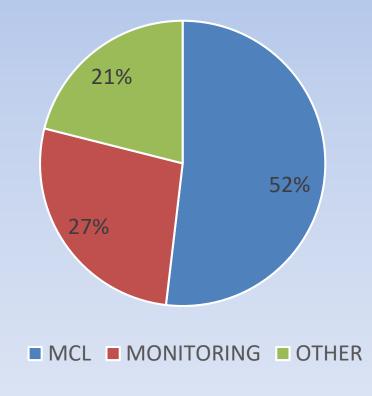
- Approximately 3,000 Community
 Water Systems and School Systems
- Red stars represent water systems with violations of drinking water standards
- 90% of violations occur in water systems serving less than
 500 connections

Map source: Human Right to Water Portal https://www.waterboards.ca.gov/water_issues/programs/hr2w/



Tracking Violations Statewide

STATEWIDE 16,452 VIOLATIONS, 2015-2019



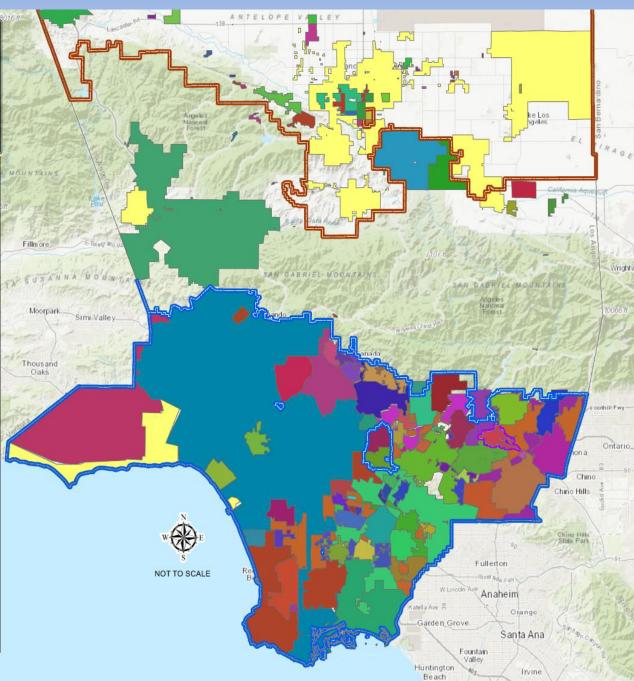
- MCL Violations Arsenic, Nitrate,
 Coliform Bacteria, 1,2,3 TCP, Disinfection
 Byproducts, Uranium, Fluoride, Chromium,
 E. Coli, Manganese, Perchlorate
- Other Violations violations of a permit condition, failure to distribute consumer confidence report, failure to complete annual report, failure to notify state, failure to notify public, inadequate treatment of surface water, inadequate disinfection, record keeping, inadequate operator certification, waterworks standards violation

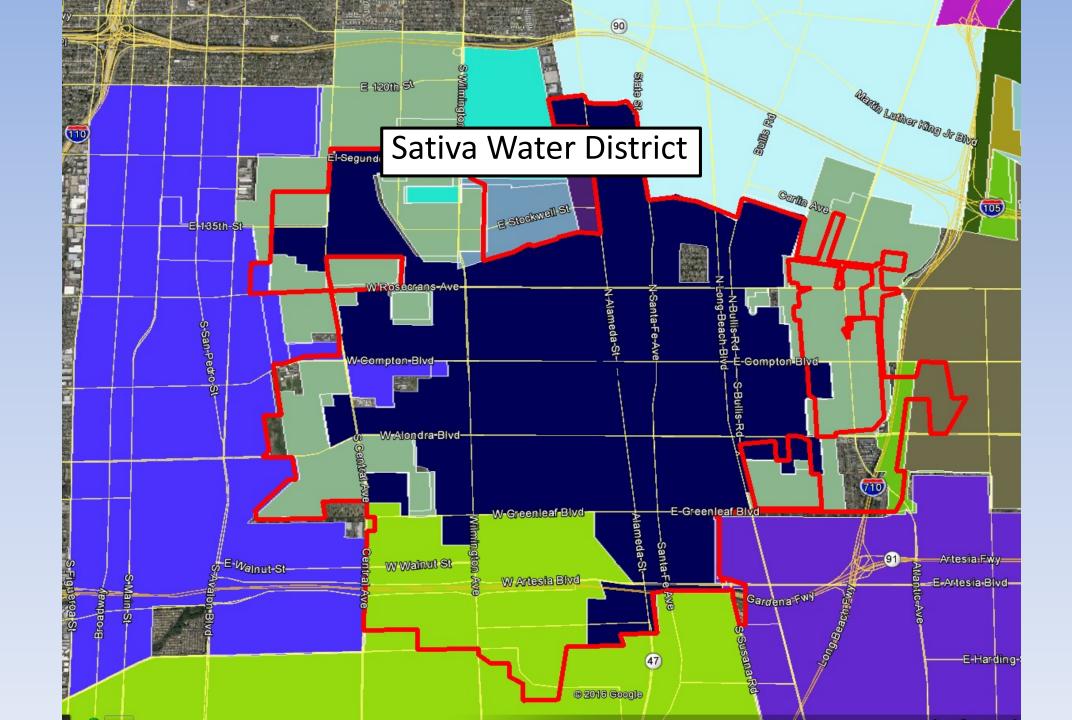
Human Right to Water Violation Data – LA County

REGULATING_AGENCY	WATER_SYSTEM_NAME	POPULA TION	SERVICE_ CONNECT IONS	COUNTY	VIOLATION_ TYPE
LPA49 - LA COUNTY	LANCASTER PARK MOBILE HOME PARK	61	21	LOS ANGELES	Arsenic MCL
LPA49 - LA COUNTY	METTLER VALLEY MUTUAL	135	98	LOS ANGELES	Arsenic MCL
LPA49 - LA COUNTY	THE VILLAGE MOBILE HOME PARK	50	34	LOS ANGELES	Arsenic MCL
LPA49 - LA COUNTY	MITCHELL'S AVENUE E MOBILE HOME PARK	24	24	LOS ANGELES	Arsenic MCL
LPA49 - LA COUNTY	WINTERHAVEN MOBILE ESTATES	56	20	LOS ANGELES	Arsenic MCL
DISTRICT 22 - ANGELES	EAST PASADENA WATER CO.	9841	2982	LOS ANGELES	1,2,3 TCP MCL
DISTRICT 07 - HOLLYWOOD	LAND PROJECTS MUTUAL WATER CO.	1500	542	LOS ANGELES	Arsenic MCL

WATER PURVEYORS OF







Waterboard Activities – Sativa Water District

- 2011 to 2017 Enforcement for multiple monitoring and reporting violations*
- 2017 Sanitary Survey Several infrastructure problems identified *
- February 2018 Sativa applies for and receives State
 Water Board \$200k planning grant
- April 2018 Widespread colored water incident occurs*
 DDW joint investigation with LA County Environmental

 Health

^{*} Indictors of Technical, Managerial and Financial Capacity Problems!

Waterboard Activities – Sativa Water District

- June 2018 Compliance order for inadequate source capacity, presence of particulate in distribution system, inadequate pressure, and inadequate flushing.*
- October 2018 after LAFCO initiates dissolution and AB 1577/SB862 passed, DDW issues Administrative Order requiring Sativa to accept full control by LA County Public Works. <u>First time DDW uses this authority</u>.
- 2019 and ongoing— DDW and DFA works with LA County Public Works on interconnection projects and distribution system repairs. DFA funds technical assistance and staff training and \$1.8 M in grant funding for construction of critical infrastructure. DDW/DFA will continue to work with LA County's successor once selected.

^{*} Indictors of Technical, Managerial and Financial Capacity Problems!

LA LAFCO Actions – Sativa Water District

• 2012:

- LAFCO Sativa Municipal Service Review: Recommends dissolving Sativa County Water District and designating the Central Basin Municipal Water District as the successor agency
- Commission adopts Zero Sphere of Influence for Sativa and requires continuing review
- 2014 to 2017:
 - Progress Reports considered by the Commission
- 2018:
 - LAFCO initiates dissolution (July)
- 2019:
 - Commission approves Sativa dissolution (February)
 - Dissolution Effective (March)

Small Water System and DACs Challenges

Technical, Managerial, and Financial Capacity Issues

- Inadequate staffing
- Poor governance
- Aging Infrastructure lack of asset management and capital improvement planning to address
- Difficulty accessing funding for improvements
- Difficulty setting rates that reflect true costs and remains affordable to customers

Small Water System and DACs Challenges

Water Quality and Quantity Issues

- Volatile Organic Chemicals difficulty installing and operating treatment systems
- Secondary Standards (Iron, Manganese, Color) same as above
- Chemicals of Emerging Concern (PFOS, PFOA, and 1,4
 Dioxane) Likely need for future treatment
- Lack of Storage
- Inadequate or unreliable sources

Contaminants Affecting Groundwater Quality in LA Co.

CHEMICAL	# Sources Above MCL
TRICHLOROETHYLENE (TCE)	129
1,4 DIOXANE *	122
MANGANESE	100
TETRACHLOROETHYLENE (PCE)	98
NITRATE (AS N)	86
PERFLUOROOCTANE SULFONIC ACID (PFOS) *	69
PERFLUOROOCTANOIC ACID (PFOA) *	67
PERCHLORATE	65
ARSENIC	48
CARBON TETRACHLORIDE (CTC)	45
IRON	41
1,2,3-TRICHLOROPROPANE (TCP)	40

Total number of drinking water sources in LA County = 2,189

^{* 1,4} DIOXANE, PFOS and PFOA do not have MCLs but development of regulatory standards is underway.

SB-200

- SB200 Safe and Affordable Drinking Water Fund (effective 7/2019)
 - Provides \$130 million a year for 10 years for water infrastructure projects including consolidation and funding for Administrator costs
 - State Board staffing to assess small water system needs, enhances ability to assess financial capacity, identify high risk water systems and areas, develop interim and sustainable long-term solutions
- Statewide Needs Assessment Identifying Public Water Systems in Violation or <u>At-Risk</u>
- Clearer authority for financial capacity data collection
- Administrator authority and funding
- Outreach to communities
- Goals include consolidations, regional solutions, local capacity building, and accelerated timelines

NEW Safe and Affordable Section (SAFER – Safe and Affordable Fund for Equity and Resiliency)

Michelle Frederick (Monterey)
Supervising Engineer

Water Engagement Unit, NorCal Brian Kidwell (Stockton) Senior Engineer

Water Engagement Unit, SoCal Karen Nishimoto (Glendale) Senior Engineer Needs Analysis Unit TBD (Sacramento) Senior Engineer

Water Engagement Units, North and South

Priorities:

- Water systems with public health violations
 - work with DDW District Offices and DFA
 - Initial focus on disadvantaged communities and small water systems
- Consolidations, mandatory or voluntary
- Administrators
- Review of any new proposed water system to prevent formation when consolidation is viable
- Staffing located across the State in District Offices

Water Engagement Unit, SoCal Karen Nishimoto (Glendale) Senior Engineer

Caitlin Juarez Engineer (Fresno)

Shen Huang Engineer (San Diego)

> TBD Engineer (Fresno)

Omid Rabbani Engineer (San Bernardino)

Anthony Trujillo Engineer (Glendale)

> TBD AGPA (Glendale)

Water Engagement Unit, NorCal Brian Kidwell (Stockton) Senior Engineer

Ariel Chavez Engineer (Sacramento)

TBD - offer pending (Stockton)

TBD Engineer (Redding or Santa Rosa) Beti Girma Engineer (Sacramento)

TBD Engineer (Monterey)

> TBD AGPA (Stockton)

Needs Analysis Section

Priorities:

- Identify water systems at-risk
- Support collection of state small water system information
- Support hazard mapping efforts for individual domestic wells
- Evaluate regions for potential consolidations/partnerships

Needs Analysis Section TBD (Sacramento) Senior Env. Scientist

Jeffrey Albright Engineer (Sacramento)

TBD*
Engineer
(Sacramento)

TBD Env. Scientist (Sacramento)

TBD AGPA (Sacramento) TBD*
Engineer
(Sacramento)

TBD*
Engineer
(Sacramento)

TBD Env. Scientist (Sacramento)

TBD AGPA (Sacramento)

Resources

- DDW Main Webpage
 https://www.waterboards.ca.gov/drinking_water/programs/index.html
- HR2Water Webpage
 https://www.waterboards.ca.gov/water_issues/programs/hr2w/
- Drinking Water Partnerships and Consolidation Webpage
 https://www.waterboards.ca.gov/drinking water/certlic/drinkingwater/waterpartnership.html
- Subscribe to email list https://www.waterboards.ca.gov/resources/email_subscriptions/swrcb_subscribe.html

Jeff O'Keefe <u>jeff.okeefe@waterboards.ca.gov</u> Karen Nishimoto <u>karen.nishimoto@waterboards.ca.gov</u>