Division of Drinking Water - Addressing Drinking Water Challenges in Urban, Small, and Disadvantaged Communities

Southern California Water Dialogue
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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

<table>
<thead>
<tr>
<th>Type of System</th>
<th>Approximate #</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMUNITY</td>
<td>3,000</td>
</tr>
<tr>
<td>Large (&gt;3,300 people)</td>
<td>700</td>
</tr>
<tr>
<td>Small (&gt;15 connections, &lt;3,300 people)</td>
<td>2,300</td>
</tr>
<tr>
<td>NON-COMMUNITY</td>
<td>4,500</td>
</tr>
<tr>
<td>Non-transient</td>
<td>1,500</td>
</tr>
<tr>
<td>Transient</td>
<td>3,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td>7,500</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of System</th>
<th>Population</th>
<th>% of CA population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Water System</td>
<td>37 million</td>
<td>98%</td>
</tr>
<tr>
<td>&gt;1000 connections</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small Water System</td>
<td>400,000</td>
<td>1%</td>
</tr>
<tr>
<td>&lt;1000 connections</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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

• 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

<table>
<thead>
<tr>
<th>REGULATING_AGENCY</th>
<th>WATER_SYSTEM_NAME</th>
<th>POPULATION</th>
<th>SERVICE_CONNECTIONS</th>
<th>COUNTY</th>
<th>VIOLATION_TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPA49 - LA COUNTY</td>
<td>LANCASTER PARK MOBILE HOME PARK</td>
<td>61</td>
<td>21</td>
<td>LOS ANGELES</td>
<td>Arsenic MCL</td>
</tr>
<tr>
<td>LPA49 - LA COUNTY</td>
<td>METTLER VALLEY MUTUAL</td>
<td>135</td>
<td>98</td>
<td>LOS ANGELES</td>
<td>Arsenic MCL</td>
</tr>
<tr>
<td>LPA49 - LA COUNTY</td>
<td>THE VILLAGE MOBILE HOME PARK</td>
<td>50</td>
<td>34</td>
<td>LOS ANGELES</td>
<td>Arsenic MCL</td>
</tr>
<tr>
<td>LPA49 - LA COUNTY</td>
<td>MITCHELL'S AVENUE E MOBILE HOME PARK</td>
<td>24</td>
<td>24</td>
<td>LOS ANGELES</td>
<td>Arsenic MCL</td>
</tr>
<tr>
<td>LPA49 - LA COUNTY</td>
<td>WINTERHAVEN MOBILE ESTATES</td>
<td>56</td>
<td>20</td>
<td>LOS ANGELES</td>
<td>Arsenic MCL</td>
</tr>
<tr>
<td>DISTRICT 22 - ANGELES</td>
<td>EAST PASADENA WATER CO.</td>
<td>9841</td>
<td>2982</td>
<td>LOS ANGELES</td>
<td>1,2,3 TCP MCL</td>
</tr>
<tr>
<td>DISTRICT 07 - HOLLYWOOD</td>
<td>LAND PROJECTS MUTUAL WATER CO.</td>
<td>1500</td>
<td>542</td>
<td>LOS ANGELES</td>
<td>Arsenic MCL</td>
</tr>
</tbody>
</table>
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. *First time DDW uses this authority.*

• **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.

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

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 At-Risk

• 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, 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)

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AGPA
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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/drinkwater/waterpartnership.html

• Subscribe to email list
  https://www.waterboards.ca.gov/resources/email_subscriptions/swrcb_subscribe.html

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