



***WATER REPLENISHMENT DISTRICT
OF SOUTHERN CALIFORNIA***

Groundwater Contamination Related Programs and
Regional Groundwater Monitoring Program
(Groundwater Workshop at LARWQCB)

Brian Partington, PG, CHg
October 11, 2018

SECURING OUR WATER FUTURE TODAY

Introduction to WRD



**SERVICE AREA =
420 SQUARE MILES**



43 CITIES



**POPULATION
> 4 MILLION**



**550,000 ACRE FEET
USED PER YEAR**



**50% GROUNDWATER
FROM LOCAL WATER
WELLS**



50% IMPORTED WATER



**WRD SUPPLEMENTS
NATURAL GROUNDWATER
RECHARGE**



Groundwater Contamination Related Programs at WRD

- WRD's authority under the California Water Code.
- We have Various Programs...
 - Safe Drinking Water.
 - Disadvantaged Community Outreach.
 - Groundwater Quality.
 - Well Profiling.
 - ➔ • Groundwater Contamination.
 - ➔ • Regional Groundwater Monitoring.
- Geographical Information System (GIS).

WRD's Authority under the California Water Code

- California Water Code (Section 60224)

“For the purpose of protecting and preserving the groundwater supplies within the district for beneficial use, the district may take any action which is necessary to accomplish any of the following:”.

- Prevent contaminants from entering the groundwater supplies;
- Remove contaminants from the groundwater supplies;
- Determine the existence, extent, and locations of contaminants;
- Determine persons responsible for those contaminants;
- Perform engineering or scientific studies for contaminants.

WRD's Authority under the California Water Code

- One thing is missing...No Regulatory Authority.
- WRD has a long standing relationship working collaboratively with our regulatory partners (DDW, EPA, DTSC, RWQCB, etc.).



Safe Drinking Water Program

District funded:

- 12 grant projects to remove VOCs.
- 4 loan projects to remove Secondary Constituents.
- 1 demonstration project researching various media for removing Arsenic.

Program restored the use of 17 production well facilities (~38,000 acre-feet per year).



Safe Drinking Water Program



Disadvantaged Communities Outreach Pilot Program



DAC OUTREACH PILOT PROGRAM

PROGRAM FOR DISADVANTAGED COMMUNITIES:

The Water Replenishment District of Southern California (WRD) recently launched a new component to the Safe Drinking Water Program, the Disadvantage Communities (DAC) Outreach Pilot Program. This program was developed as a benefit for disadvantaged communities to fill the gaps where resources may not be available. The objective of the program is to assist small water systems that supply drinking water to disadvantaged communities access the funding they need to address contaminated drinking water sources. By helping disadvantaged communities clean up their contaminated wells, WRD is helping them to reduce the region's dependence on costly imported water. Through this innovative pilot program, the "Safe Drinking Water Program for Disadvantaged Communities", WRD is showing its commitment to helping small systems provide the region's residents with safe and affordable drinking water.

BOARD OF DIRECTORS



DAC WELLS	WELL NO.	CITY	OWNER
	1	Huntington Park	City of Huntington Park
	2	Maywood	Maywood Mutual Water Company No. 2
	3	Bell Gardens	City of Bell Gardens
	4	Lynwood	City of Lynwood
	5	Compton	City of Compton
	6	Lynwood	City of Lynwood
	7	Compton & Willowbrook	Safiya LA County Water District
	8	Maywood	Maywood Mutual Water Company No. 3

www.wrd.org
 4040 Paramount Boulevard
 Lakewood, California 90712

Groundwater Quality Program

- Monitor and Evaluate Drinking Water Regulations / Legislation.
- Hold an Annual Groundwater Quality Workshop for District's Water Purveyors. Cover a wide range of topics including cutting edge technologies, well rehabilitations, and regulatory update from DDW.
- Conduct Central Basin Title 22 Groundwater Monitoring for Participating Pumpers (started in 2007).
- Monitoring / Sampling of Surface Spreading and Injection Activities.



Well Profiling Program

- Flow and chemistry data from different depths inside Water Well.
- Data can be used to develop options to improve overall water quality.
- Process typically includes the following:
 - Review Well Information
 - Verify access with Chain Survey
 - Video Camera Survey
 - Flow Profiling
 - (Dynamic / Ambient)
 - Depth-Discrete Sampling

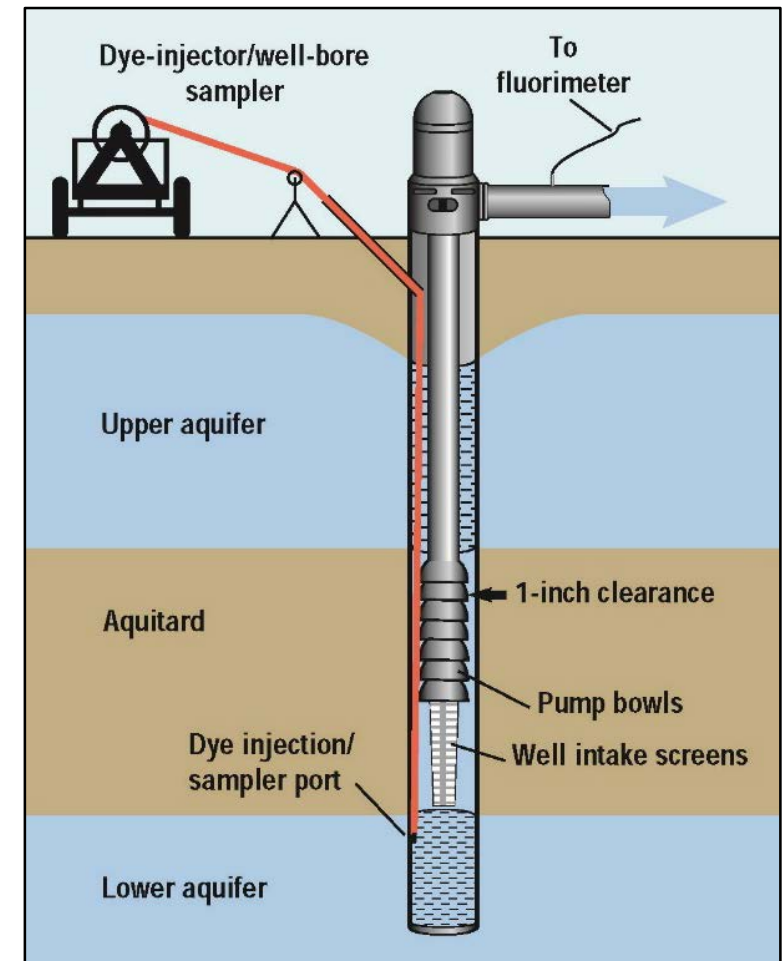


Water Well Profiling in the Central and West Coast Basins, Los Angeles County CA

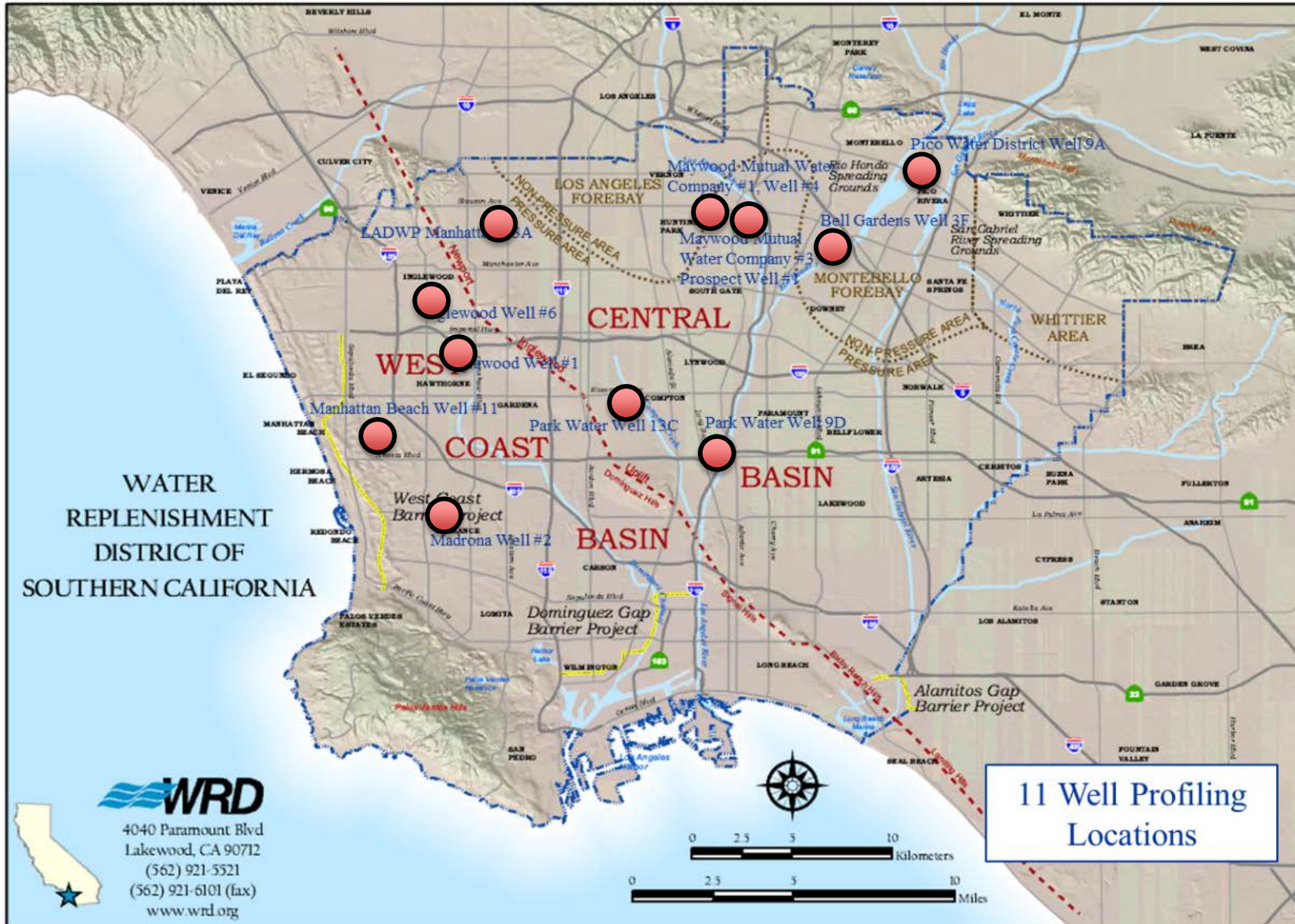
Tuesday, May 8, 2012: 1:30 p.m.
Theodore A. Johnson, PG, CHG, Water Replenishment District of Southern California;
Charlene King, Water Replenishment District of Southern California;
Everett Ferguson, Water Replenishment District of Southern California;
Don Lee, Tetra Tech GEO;



U.S. Geological Survey Combined Well-Bore Flow and Depth-Dependent Water Sampler



Well Profiling Program



Groundwater Contamination Program

- Groundwater Contamination Program Started in 2004.
- Program was developed with feedback from various stakeholders including pumpers and regulatory agencies (EPA, DTSC, and RWQCB).
- Three objectives of Groundwater Contamination Prevention Program.
 1. Conduct a systematic review / prioritization of selected groundwater contamination Sites.
 2. Develop a strategy for assisting regulatory agencies with overseeing characterization at these Sites.
 3. Monitor remediation progress and provide feedback on priority Sites.
- Tracking the progress of high priority sites that may or already have impacted the drinking water supply within the Central Basin and West Coast Basin (CBWCB).

Groundwater Contamination Program

- Sites are evaluated based on the following nine criteria:
 1. Site Location / Local Hydrogeology
 2. Distance to Nearest Water Supply Well
 3. Depth to Contamination
 4. Contaminant Concentrations in Groundwater
 5. Fate and Transport of Contaminants
 6. Presence of Contamination in Water Supply Wells
 7. Status of Delineation of Contaminants
 8. Status of Remediation
 9. Stage of Regulatory Agency Involvement



Groundwater Contamination Program

CRITERIA ⁽¹⁾		POINTS				
		20	15	10	5	0
1	SITE LOCATION / HYDROGEOLOGY ⁽²⁾	LOCATED WITHIN THE LOS ANGELES OR MONTEBELLO FOREBAYS AND/OR WHERE BELLFLOWER AQUICLUDE IS ABSENT	N/A	LOCATED IN AREA WHERE BELLFLOWER AQUICLUDE IS COMPOSED OF SANDY & GRAVELLY CLAY	N/A	LOCATED ABOVE THE BELLFLOWER AQUICLUDE
2	DISTANCE TO NEAREST WATER SUPPLY WELL ⁽³⁾	AT LEAST ONE "ACTIVE" WATER SUPPLY WELL WITHIN 0.5 MILE	AT LEAST ONE "INACTIVE" OR "UNKNOWN STATUS" WATER SUPPLY WELL WITHIN 0.5 MILE	AT LEAST ONE "ACTIVE" WATER SUPPLY WELL BETWEEN 0.5 - 1.0 MILE	AT LEAST ONE "INACTIVE" OR "UNKNOWN STATUS" WATER SUPPLY WELL BETWEEN 0.5 - 1.0 MILE	IF "ACTIVE", "INACTIVE", OR "UNKNOWN STATUS" WATER SUPPLY WELL GREATER THAN 1.0 MILE
3	DEPTH OF CONTAMINATION ⁽⁴⁾	IF SITE CONTAMINANTS ARE DETECTED WITHIN OR DEEPER THAN THE GAGE AND/OR GARDENA AQUIFERS WITHIN 0.5 MILE	N/A	IF SITE CONTAMINANTS ARE DETECTED ABOVE THE GAGE AND/OR GARDENA AQUIFERS WITHIN 0.5 MILE	N/A	SOIL ONLY
4a	CONTAMINANT CONCENTRATIONS IN ON-SITE GROUNDWATER ⁽⁵⁾	EXCEEDANCE >10,000X (OR UNKNOWN)	EXCEEDANCE 1,000X to 10,000X	EXCEEDANCE 100X to 1,000X	EXCEEDANCE MCL to 100X	SOIL ONLY OR EXCEEDANCE <MCL
4b	CONTAMINANT CONCENTRATIONS IN OFF-SITE GROUNDWATER ⁽⁵⁾	EXCEEDANCE >1,000X (OR UNKNOWN)	EXCEEDANCE 100X to 1,000X	EXCEEDANCE 10X to 100X	EXCEEDANCE MCL to 10X	SOIL ONLY OR EXCEEDANCE <MCL
5	FATE AND TRANSPORT OF CONTAMINANTS ⁽⁶⁾	VERY HIGH MOBILITY	N/A	HIGH MOBILITY	MODERATE MOBILITY	LOW TO SLIGHT MOBILITY
6	PRESENCE OF CONTAMINATED WATER SUPPLY WELLS ⁽⁷⁾	AT LEAST ONE WATER SUPPLY WELL IMPACTED BY CONTAMINATION FROM SITE	N/A	AT LEAST ONE WATER SUPPLY WELL <u>POSSIBLY</u> CONTAMINATED DUE TO RELEASES AT SITE	N/A	NO WATER SUPPLY WELLS CONTAMINATED DUE TO RELEASES AT SITE
7a	STATUS OF LATERAL DELINEATION OF CONTAMINANTS ⁽⁵⁾	SITE CONTAMINANTS NOT DELINEATED LATERALLY - CONTAMINANT CONCENTRATIONS GREATER THAN 25X	N/A	SITE CONTAMINANTS DELINEATED LATERALLY BETWEEN 10X to 25X	N/A	SITE CONTAMINANTS DELINEATED LATERALLY TO LESS THAN 10X
7b	STATUS OF VERTICAL DELINEATION OF CONTAMINANTS ⁽⁵⁾	SITE CONTAMINANTS NOT DELINEATED VERTICALLY - CONTAMINANT CONCENTRATIONS GREATER THAN 25X	N/A	SITE CONTAMINANTS DELINEATED VERTICALLY BETWEEN 10X to 25X	N/A	SITE CONTAMINANTS DELINEATED VERTICALLY TO LESS THAN 10X
8a	SOIL REMEDIATION ⁽⁹⁾	NONE OR ONLY PARTIAL / INTERIM REMEDY	FULL REMEDY OPERATING	REMEDY APPROACHING ASYMPTOTIC CONDITIONS	IMPLEMENTING SYSTEM OPTIMIZATION PHASE	NO FURTHER ACTION LETTER FROM AGENCY
8b	ON-SITE GROUNDWATER REMEDIATION	NONE OR ONLY PARTIAL / INTERIM REMEDY	FULL REMEDY OPERATING	REMEDY APPROACHING ASYMPTOTIC CONDITIONS	IMPLEMENTING SYSTEM OPTIMIZATION PHASE	NO FURTHER ACTION LETTER FROM AGENCY
8c	OFF-SITE GROUNDWATER REMEDIATION	NONE OR ONLY PARTIAL / INTERIM REMEDY	FULL REMEDY OPERATING	REMEDY APPROACHING ASYMPTOTIC CONDITIONS	IMPLEMENTING SYSTEM OPTIMIZATION PHASE	NO FURTHER ACTION LETTER FROM AGENCY
9	STAGE OF REGULATORY AGENCY INVOLVEMENT	NO ACTION TAKEN	SITE CHARACTERIZATION	REMEDIAL ACTION PLANS	IMPLEMENTING REMEDY	LONG-TERM MONITORING OR NO FURTHER ACTION

Notes:

"N/A" criteria not established for this numeric value (Not Applicable).

(1) All criteria assume the evaluation area includes "the site and its associated contamination plume".

(2) Los Angeles and Montebello Forebay boundaries based on Plate 2; "Planned Utilization of the Ground Water Basins of the Coastal Plain of Los Angeles County; Bulletin No. 104" (Department of Water Resources [DWR], 1961).

Bellflower Aquiclude boundaries based on Plates 9a and 9b; "Planned Utilization of the Ground Water Basins of the Coastal Plain of Los Angeles County; Bulletin No. 104" (Department of Water Resources [DWR], 1961).

(3) An "active" well has extracted groundwater at any time during the prior three years as defined by WRD.

(4) Depth of Gage and/or Gardena Aquifers based upon Plates 12a and 12b; "Planned Utilization of the Ground Water Basins of the Coastal Plain of Los Angeles County; Bulletin No. 104" (Department of Water Resources [DWR], 1961).DWR (1961).

(5) "X" indicates at least one site contaminant has been detected at a concentration (and some multiple [X]) greater than a regulatory standard for California; i.e., Maximum Contaminant Level (MCL) or Notification Level (NL).

(6) Evaluation based on Chemical Properties of Chemicals of Concern (Table 4) and Fate and Transport of Chemicals of Concern (Table 5).

(7) Focus on down-gradient wells with sites / plumes located within probable capture zone and serving potable water as permitted by the DDW.

(8) A minimum of three groundwater monitoring wells constructed to the maximum depth of contamination before vertical delineation can be considered.

(9) Focus on active remediation such as soil vapor extraction (SVE). Some mass may be "left-in-place" and will be evaluated further using groundwater results in Criteria 8b/8c.

Groundwater Contamination Program

- Numeric values are applied to each criteria (0 to 20).
- Sites are then sorted numerically and separated into to Categories.
 - Category 1 – Higher Priority / Progress reviewed Annually
 - Category 2 – Lower Priority / Data reviewed roughly every 2 years
 - Green Triangles – Sites no longer considered High Priority
- Sites reviewed monthly with our Groundwater Quality Committee.
- Status updates from regulatory agency for the most heavily impacted sites two times per year at our Groundwater Contamination Forum.

Groundwater Contamination Program

Groundwater Quality Committee

**SPECIAL MEETING OF THE GROUNDWATER QUALITY COMMITTEE
OF THE BOARD OF DIRECTORS
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA
4040 PARAMOUNT BOULEVARD, LAKEWOOD, CA 90712
2:00 P.M., WEDNESDAY, MAY 18, 2016**

AGENDA

EACH ITEM ON THE AGENDA, NO MATTER HOW DESCRIBED, SHALL BE DEEMED TO INCLUDE ANY APPROPRIATE MOTION, WHETHER TO ADOPT A MINUTE MOTION, RESOLUTION, PAYMENT OF ANY BILL, APPROVAL OF ANY MATTER OR ACTION, OR ANY OTHER ACTION. ITEMS LISTED AS "FOR INFORMATION" MAY ALSO BE THE SUBJECT OF ANY "ACTION" TAKEN BY THE BOARD OR A COMMITTEE AT THE SAME MEETING.

1. **DETERMINATION OF A QUORUM**
2. **PUBLIC COMMENT**
Pursuant to Government Code Section 54954.3.
3. **CONTRACT AMENDMENT WITH KENNEDY COMMUNICATIONS FOR THE SAFE DRINKING WATER DISADVANTAGED COMMUNITIES OUTREACH PILOT PROGRAM**
Staff Recommendation: For discussion and possible action.
4. **NO COST TIME EXTENSION WITH TETRA TECH INC FOR WELL PROFILING SERVICES**
Staff Recommendation: For discussion and possible action.
5. **SAFE DRINKING WATER PROGRAM - DISADVANTAGED COMMUNITIES OUTREACH PILOT PROGRAM UPDATE**
Staff Recommendation: For discussion.
6. **ENVIRONMENTAL SITES REVIEW**
Staff Recommendation: For information.
7. **DIRECTORS REPORTS, INQUIRIES, AND FOLLOW UP OF DIRECTIONS TO STAFF**
8. **ADJOURNMENT**
The Committee will adjourn to the next regular meeting currently scheduled Tuesday, June 21, 2016 at 10:30 a.m.

Agenda posted by Scott M. Ota, Chief Financial on May 17, 2016.

In compliance with the Americans with Disabilities Act (ADA), if special assistance is needed to participate in the meeting, please contact Chief Financial Officer Scott Ota at (562) 921-5521 for assistance to enable the District to make reasonable accommodations.
All public records relating to an agenda item on this agenda are available for public inspection at the time the record is distributed to all, or a majority of all, members of the Board. Such records shall be available at the District office located at 4040 Paramount Boulevard, Lakewood, California 90712.

Agendas and minutes are available at the District's website: www.wrdsd.org

EXHAUSTION OF ADMINISTRATIVE REMEDIES - If you challenge a District action in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the Chief Financial Officer at, or prior to, the public hearing. Any written correspondence delivered to the Chief Financial Officer before the District's final action on a matter will become a part of the administrative record.

Groundwater Contamination Forums

Watts Discovery Project



Jessy Fierro, Project Manager
Department of Toxic Substances Control
December 10, 2014



Montrose and Del Amo Superfund Sites Update

WRD Groundwater Forum

March 16, 2016



Status Update
Los Angeles Forebay Groundwater Task Force
March 16, 2016



Groundwater Investigation and Remediation Status Update

Former TRW Hawthorne Site

Steve Rowe, P.G.
Engineering Geologist
Site Cleanup Program, Unit III

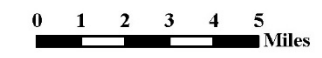
Los Angeles Regional Water Quality Control Board
Presentation for Central & West Coast Basin Contamination Forum
September 27, 2017

Groundwater Contamination Program

DRAFT High-Priority Contaminated Sites in the Central Basin and West Coast Basin



- WRD Boundary
- Central Basin Sub-Area Boundary
- Seawater Intrusion Barrier
- Newport - Inglewood Uplift
- Groundwater Contaminated Sites**
- Category 1
- Category 2
- Sites Removed from High Priority



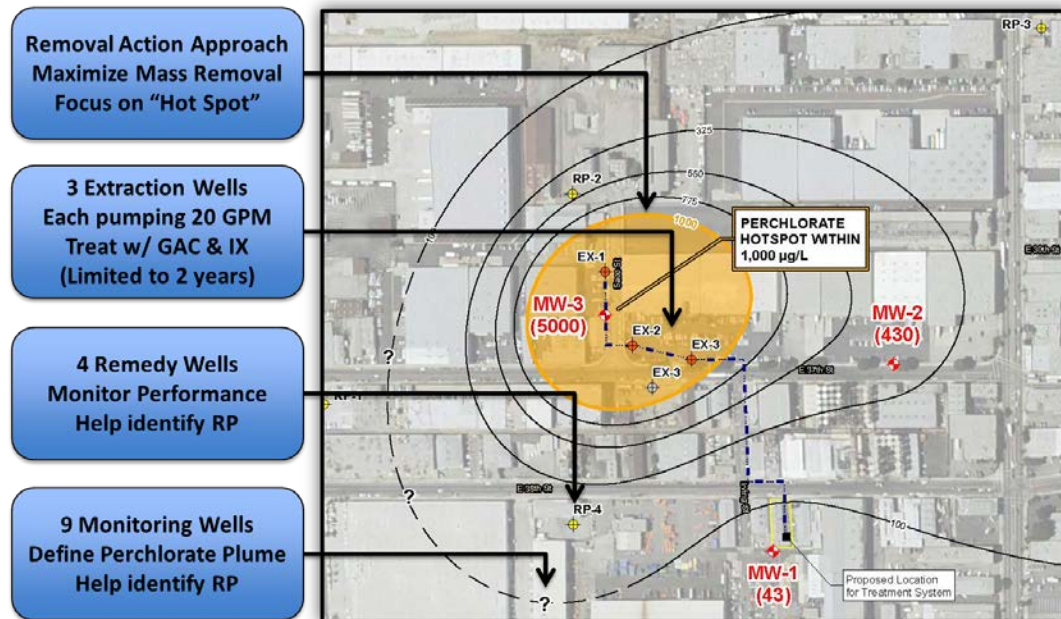
4040 Paramount Boulevard
Lakewood, CA 90712
(562) 921-5521
(562) 921-6101 (fax)
www.wrd.org

**ATTORNEY
CLIENT
PRIVILEGE**

Disclaimer: The information contained herein is intended for use only as a planning tool by Water Replenishment District of Southern California (WRD) personnel. This information is not intended to supplement, replace, or supersede any prior notices or methods used by the United States Environmental Protection Agency (EPA), the California Department of Toxic Substances Control (DTSC), the Los Angeles Regional Water Quality Control Board (RWQCB), the State Water Resources Control Board (SWRCB), Division of Drinking Water (DDW), or any other regulatory agency for any site appearing or not appearing on this list. This information shall not constitute a final regulatory determination of the environmental condition of any property appearing or not appearing on this list. The information contained herein was obtained primarily through case file review, and the WRD does not and cannot guarantee the accuracy of this information.

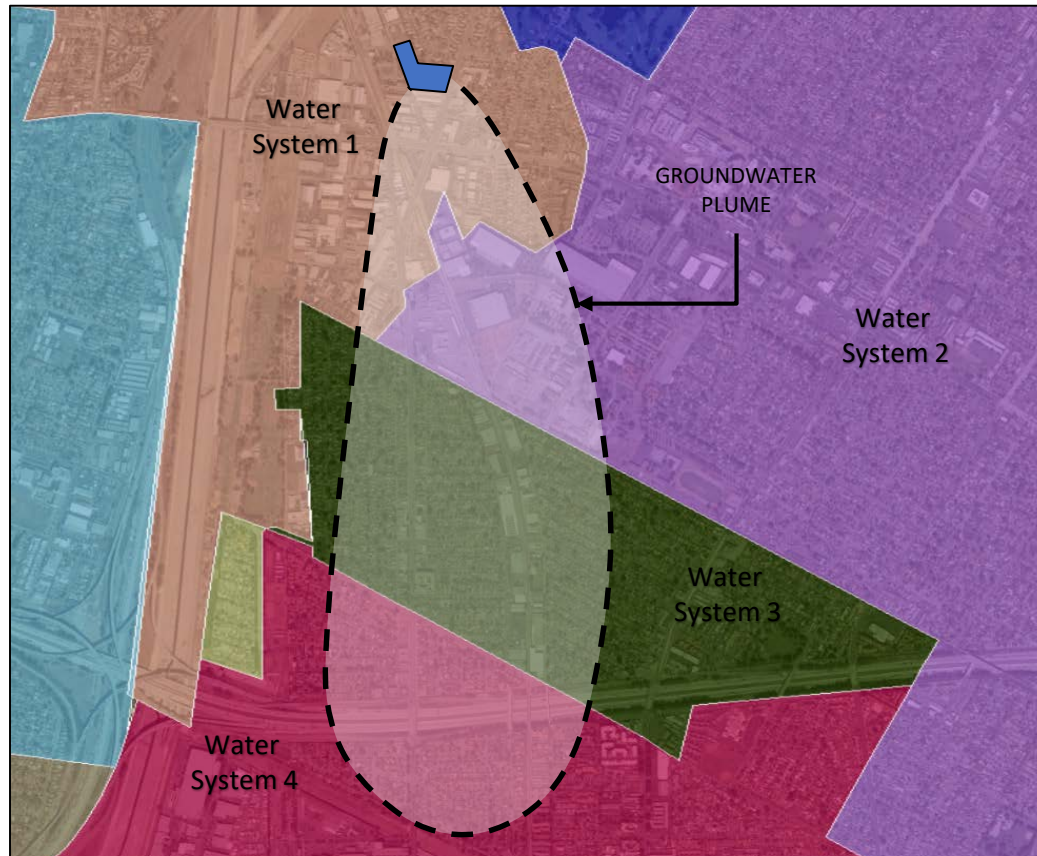
Groundwater Contamination Program

- Los Angeles Forebay Groundwater Contamination Task Force.
- Identified perchlorate “hot spot” in the City of Vernon (5,000 $\mu\text{g}/\text{L}$).
- Grant funding to address “Hot Spot” through Proposition 1.
- Nearly finished negotiating Grant Agreement (\$9,093,899).
- Work anticipated Oct. 2018 to Feb. 2023.



Groundwater Contamination Program

- Looking for other opportunities...
 - MOU with LARWQCB.
 - 2nd round concept proposals submitted for Prop 1.
 - SB445 funding through SCAP.



Well Destruction Program



TCE Contamination Cleanup and Prevention at Two Water Supply Wells in the Central Basin

MEMORANDUM OF UNDERSTANDING REGARDING GROUNDWATER INVESTIGATION AND CLEANUP IN THE CENTRAL AND WEST COAST GROUNDWATER BASINS

This MEMORANDUM OF UNDERSTANDING (MOU) is made and entered into by and among the Los Angeles Regional Water Quality Control Board (LARWQCB) and the Water Replenishment District of Southern California (WRD), each a "Party," and collectively referred to as the "Parties."

RECITALS:

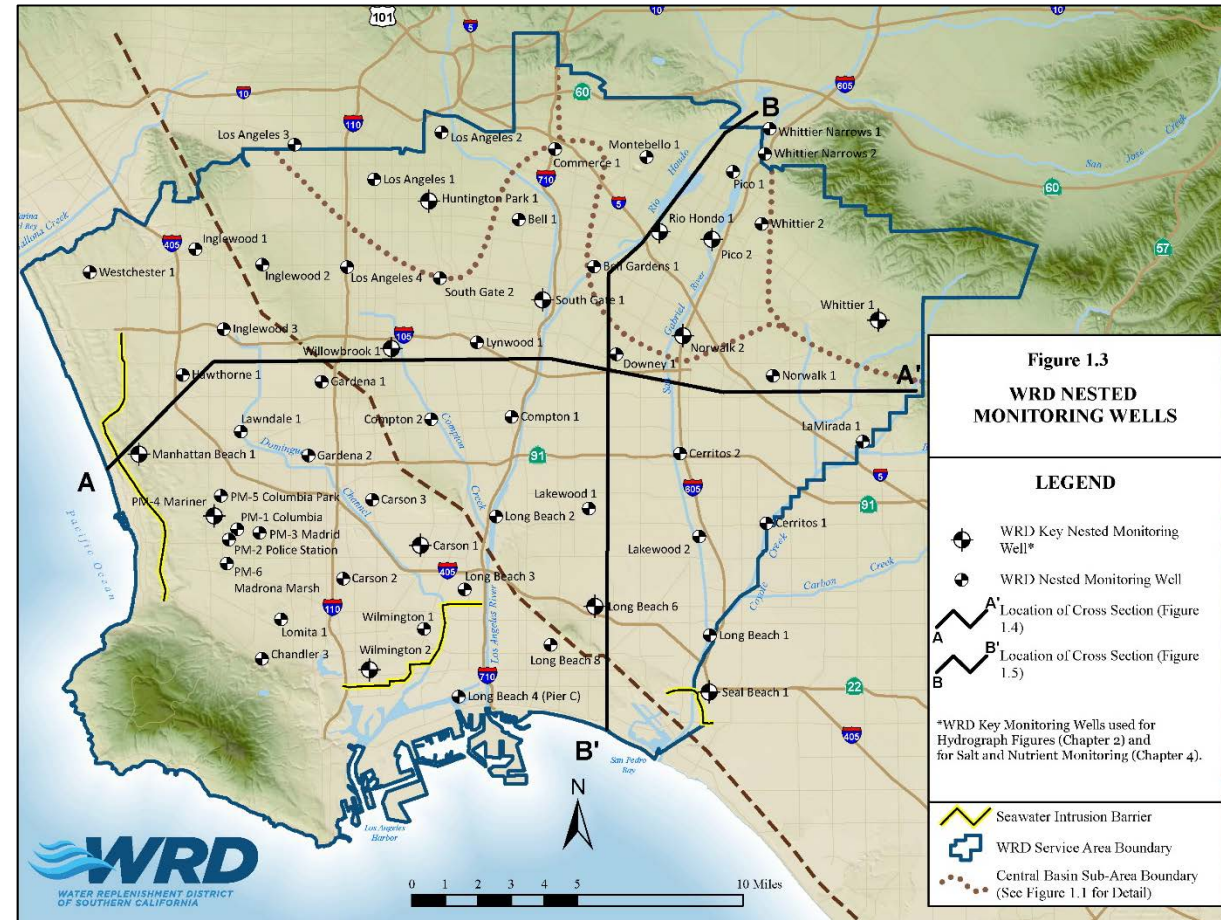
- LARWQCB is organized and operating pursuant to California Water Code §13000 et seq. LARWQCB is charged with the responsibility to protect surface and groundwater quality within the geographic area of its jurisdiction, which includes the Coastal watersheds of Los Angeles and Ventura Counties. LARWQCB enters into this MOU under the authority set forth in California Water Code § 13225 subdivisions (a) and (i).
- WRD is a regional groundwater management and replenishment agency for the Central and West Coast Groundwater Basins ("Basins"). WRD enters into this MOU and is authorized by statute to protect and preserve the quantity and quality of the groundwater supplies in the Basins, take any action to prevent contaminants from entering the Basins, remove contaminants from the Basins, and determine persons responsible for groundwater contamination in the Basins (California Water Code § 60000 et seq.).
- The Basins provide a reliable supply of local drinking water that is at risk from seawater intrusion and contamination from past industrial and agricultural activities in and around southern Los Angeles County. Such contamination may pose a threat to the deeper drinking water aquifers, and may adversely impact future withdrawals and/or spreading and storing of water in the drinking water aquifers in those parts of the Basins.
- The Parties seek to work cooperatively together to the extent possible through communication and coordination of activities to address contamination in the Basins in compliance with all applicable laws, regulations, plans and policies.¹ The Parties agree that it is in their mutual interest to undertake this work.

Now, THEREFORE, it is mutually agreed by and between the Parties as follows:

¹ As referred to herein, all applicable laws, regulations, plans and policies include, but are not limited to, the Porter-Cologne Water Quality Control Act (Cal. Wat. Code, § 13000 et seq.); the State Drinking Water Act, portions of the Health and Safety Code, State Water Board Policies, including but not limited to Resolution No. 82, 84, Policies and Procedures for Investigation and Cleanup and Assessment of Discharges under Water Code § 13304, Resolution No. 65-16 (Statement of Policy with Respect to Maintaining High Quality Waters in California (the "Anti-Degradation Policy"); the LARWQCB's Water Quality Control Plan (Basin Plan);

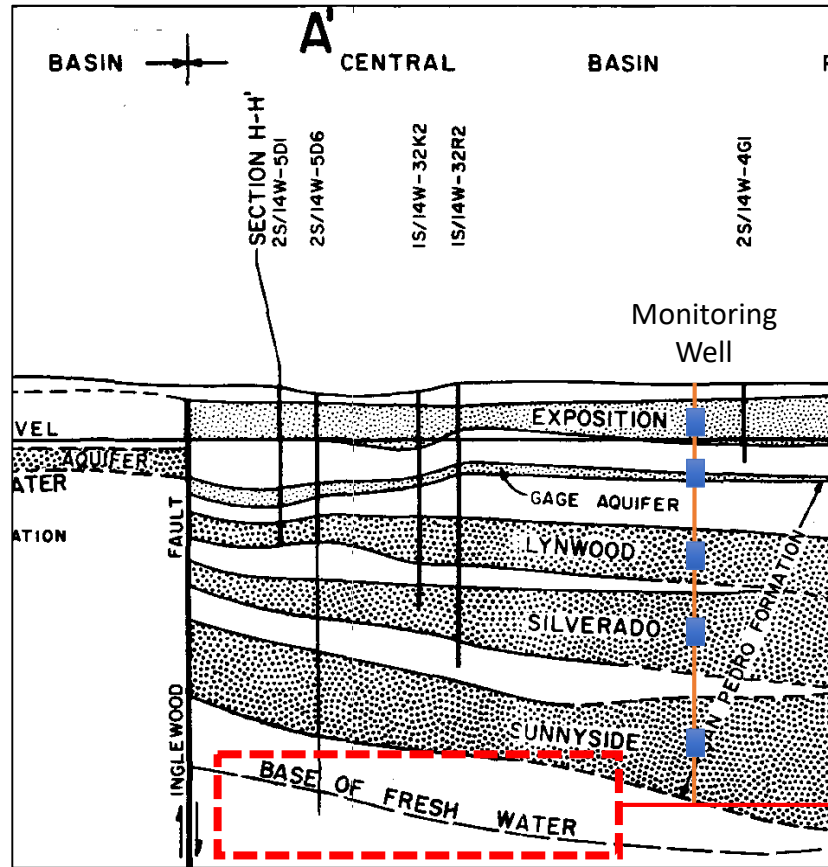
Regional Groundwater Monitoring Program

- 324 deep nested wells to 2,900’.
- Drilled by USGS.
- WRD samples wells Fall & Spring.
- Over 100 constituents analyzed with roughly 60,000 data points reported annually in our Regional Groundwater Monitoring Report.
- Data publically available via our Interactive Well Search Website. (<http://gis.wrd.org/>)



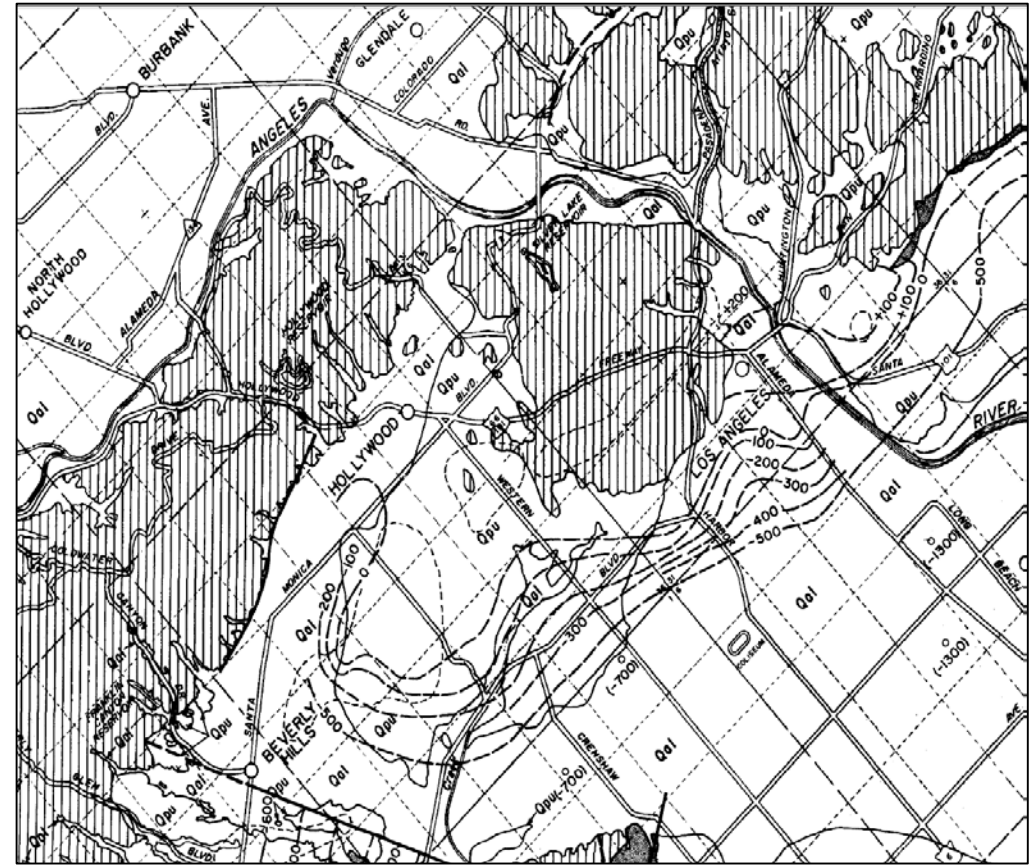
Regional Groundwater Monitoring Program

Geologic Cross-Section A-A''



Source: DWR, 1961 (Partial cross-section A-A'-A'', Plate 6A).

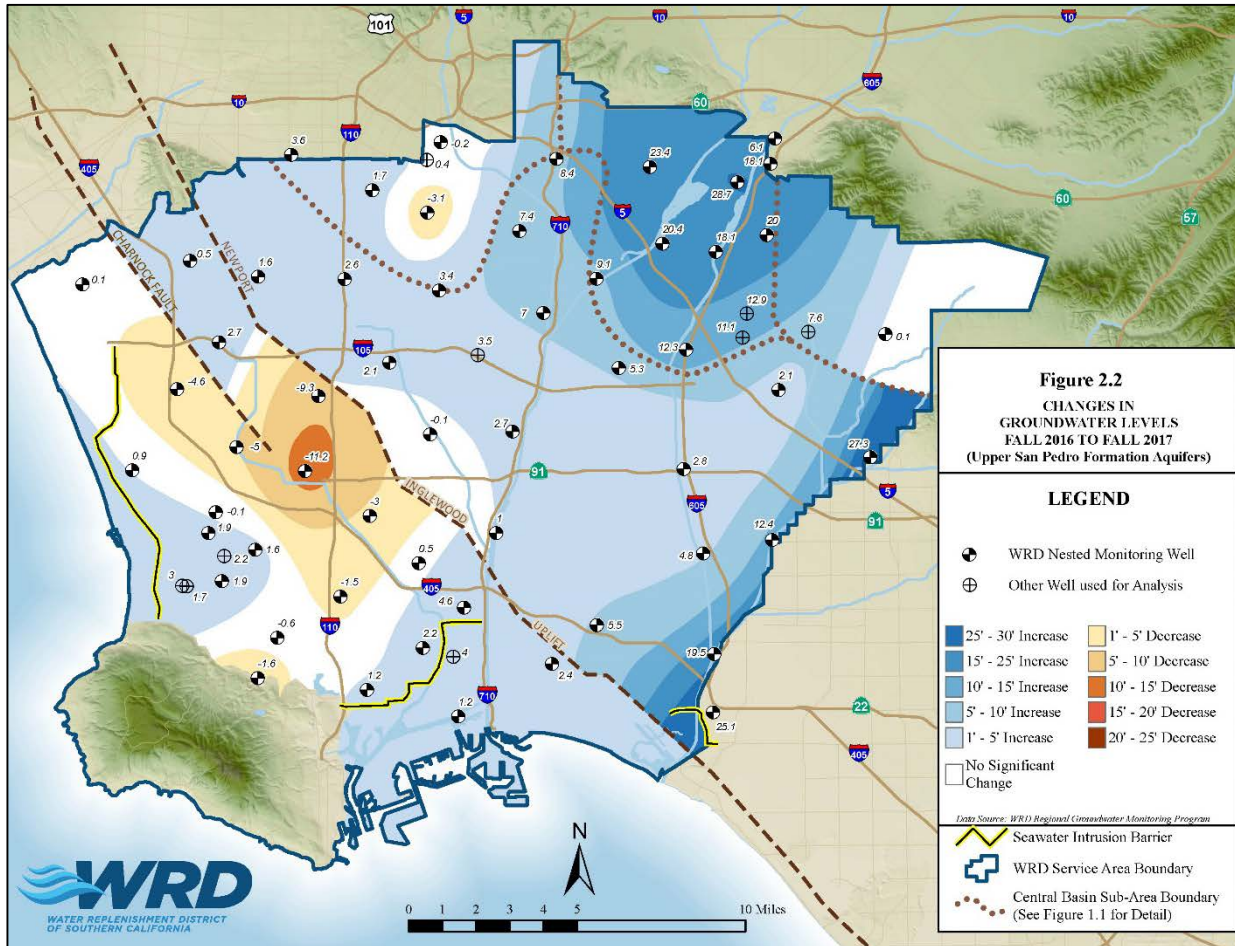
Base of Fresh Water



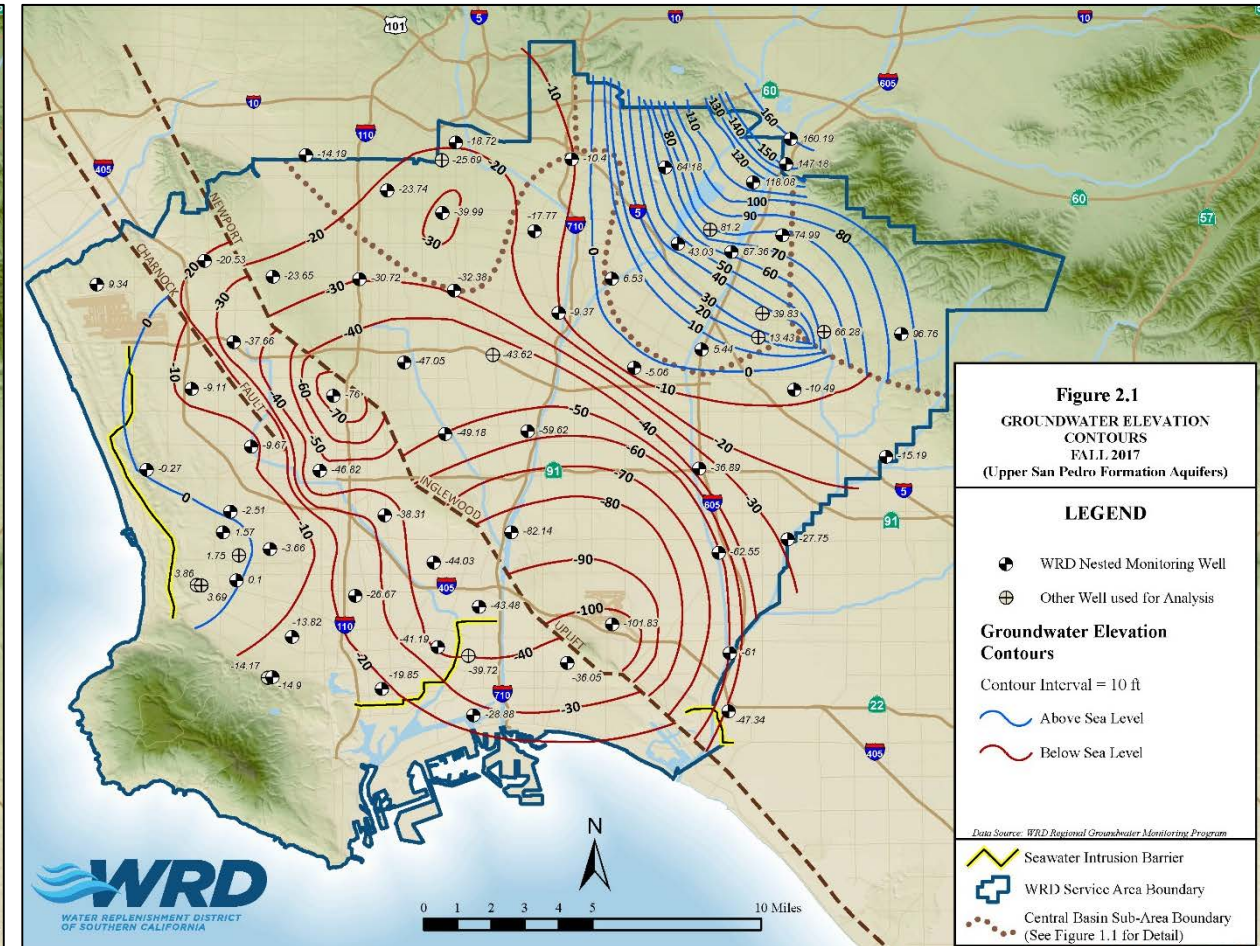
Source: DWR, 1961 (Partial isopleth of fresh water, Plate 24A).

Regional Groundwater Monitoring Program

Change in Groundwater Levels



Groundwater Elevation Contours



Regional Groundwater Monitoring Program

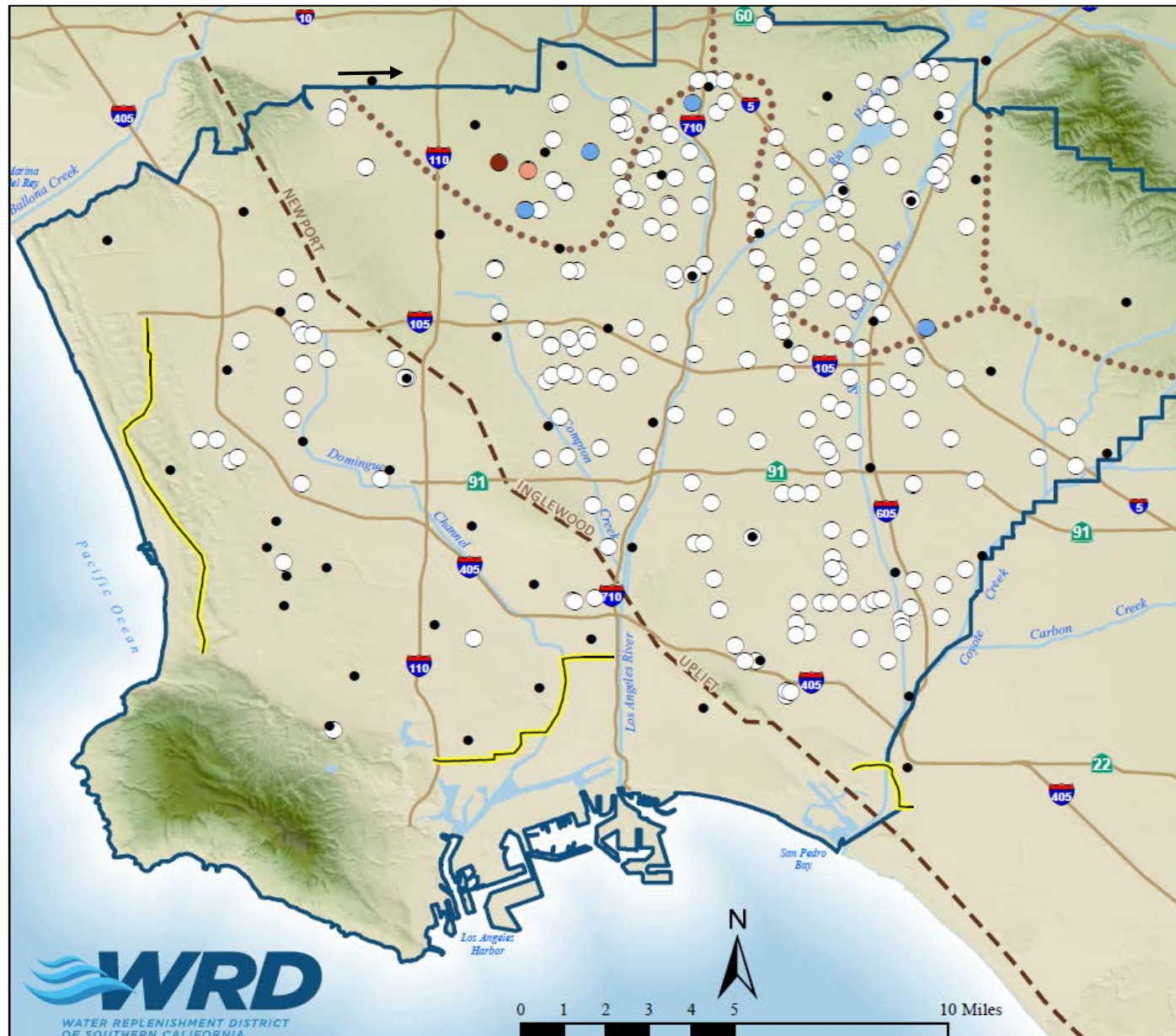


Figure 3.18
PERCHLORATE CONCENTRATIONS
IN GROUNDWATER FROM
PRODUCTION WELLS

LEGEND

Perchlorate: MCL = 6 $\mu\text{g/L}$

○ None Detected

○ $\leq 3 \mu\text{g/L}$

● 3 - 6 $\mu\text{g/L}$

● 6 - 12 $\mu\text{g/L}$


● 12 - 24 $\mu\text{g/L}$


● > 24 $\mu\text{g/L}$


● WRD Monitoring Wells

Symbol represents the maximum
concentration reported from
October 2014 - September 2017

Data Source: State Water Resources Control Board,
Division of Drinking Water

 Seawater Intrusion Barrier

 WRD Service Area Boundary

 Central Basin Sub-Area Boundary
(See Figure 1.1 for Detail)

Regional Groundwater Monitoring Program

Water Replenishment District
of Southern California



Engineering Survey
and Report

2018

March 7, 2018

Updated:
April 3, 2018



Water Replenishment District
of Southern California



REGIONAL GROUNDWATER MONITORING REPORT
WATER YEAR 2016-2017

Central and West Coast Basins
Los Angeles County, California

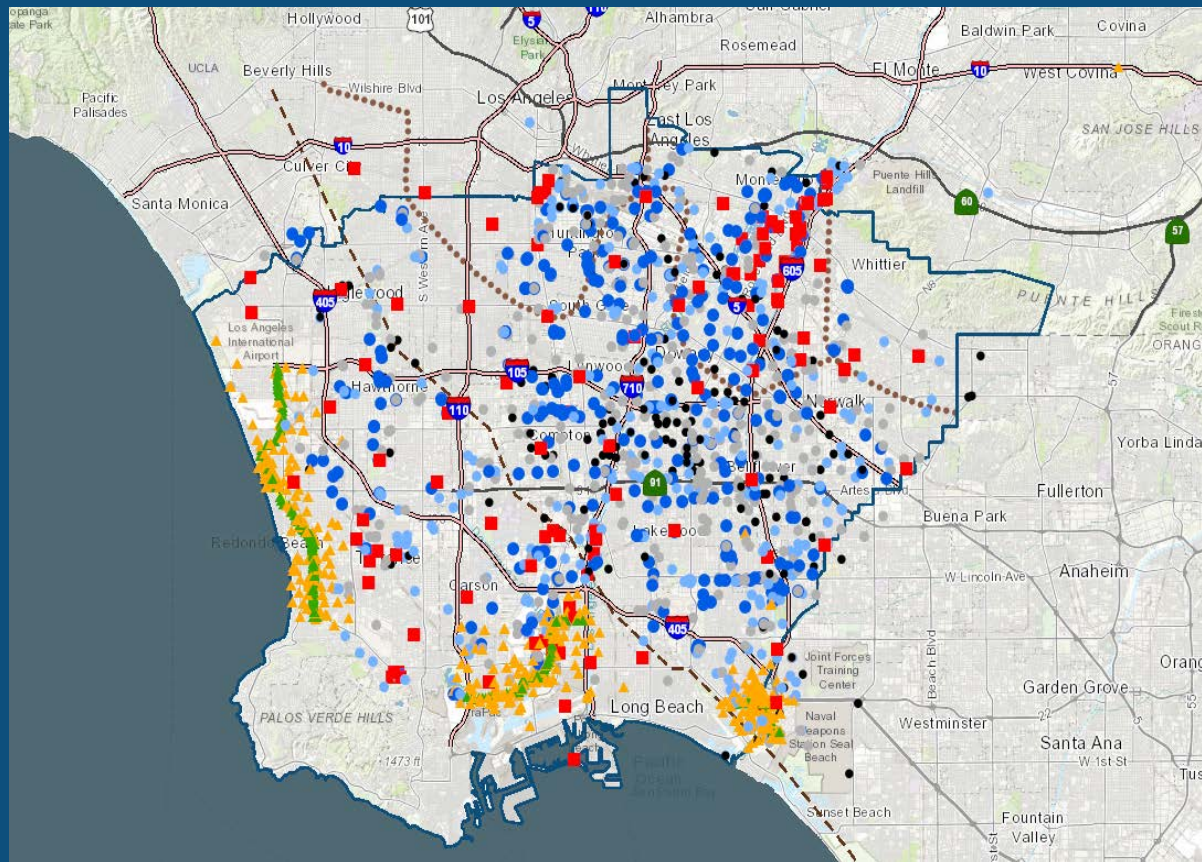
March 2018



WRD Interactive Well Search – Updated in August 2018

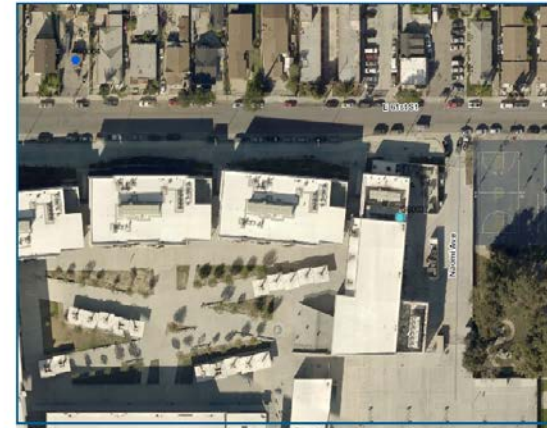
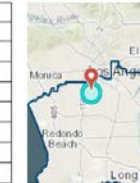
WRD GIS Hub

Welcome to the NEW WRD GIS Hub. We will use this page to provide links to interactive apps, such as the NEW WRD Well Search Tool, data you can download, frequently requested maps, and more! Check back frequently to see how we grow!



Well Construction Report
WRD ID: 202590
State ID: 2S13W-21E03S

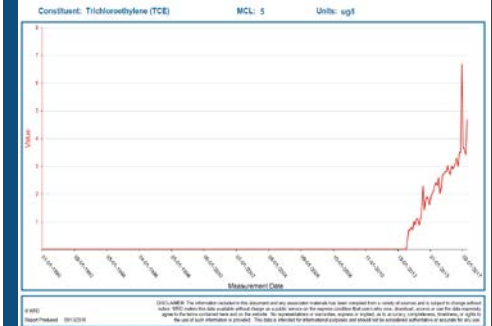
Well Owner	Golden State Water Company		
Owner's Name for Well	G0003		
Year Drilled	1943	Depth to Highest Perforation (ft)	292
Year Destroyed	2008	Depth to Lowest Perforation (ft)	326
Well Type	PW	Number of Perforated Intervals	1
Well Status	D	Well Log Available?	Y
Well Depth (ft)	300	Casing Type	
Well Diameter (in)	14	Drilling Method	
		Data Source	DWR



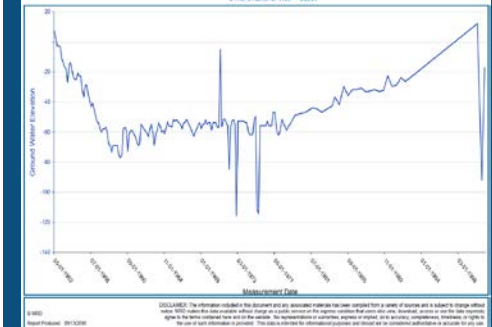
DISCLAIMER: The information included in this document and any associated materials has been compiled from a variety of sources and is subject to change without notice. WRD makes the data available without charge as a public service on the express condition that users who view, download, access or use the data expressly agree to the terms contained here and on the website. No representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information is provided. This data is intended for informational purposes and should not be considered authoritative or accurate for any use.



Water Quality Report for WRD ID: 200212
State ID: 3S13W-08J01S
Date: 1/16/1990 - 5/6/2017



Water Level Report for WRD ID: 200164
State ID: 2S13W-21E01S
Date: 5/1/1952 - 3/26/2001
Well Owner: Golden State Water Company
Owner's Name for Well: G0004



[Http://gis.wrd.org](http://gis.wrd.org)

Things to consider...

- We do a pretty good job delineating sites laterally, but often fall short on delineating sites vertically.
- Dynamic work plans to speed up site characterization using Triad Approach. Increased use of high resolution site characterization (HRSC). Encourage the use of visualization software to better “see it”.
- Continue to embrace innovative remediation methods such as using recirculation cells to increase amendment contact with groundwater via Enhanced Reductive Dechlorination (ERD).
- Work together to address contamination in the Central Basin and West Coast Basin (CBWCB).
- Continue to support and expand document availability in GeoTracker, EnviroStor, etc. Provide current site history, path forward, milestones, etc.



THANK YOU

Brian Partington
bpartington@wrd.org
562.275.4249



@WRDsocal



4040 Paramount Blvd.
Lakewood, CA 90712



www.WRD.org