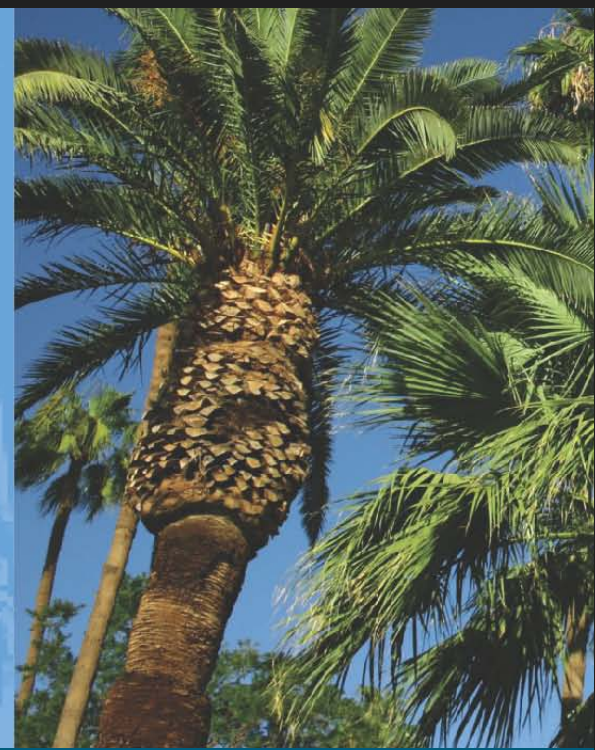


Los Angeles Gateway Region
Integrated Water Management Joint Powers Authority



Development of the Integrated Regional Water Management Plan

April 2012

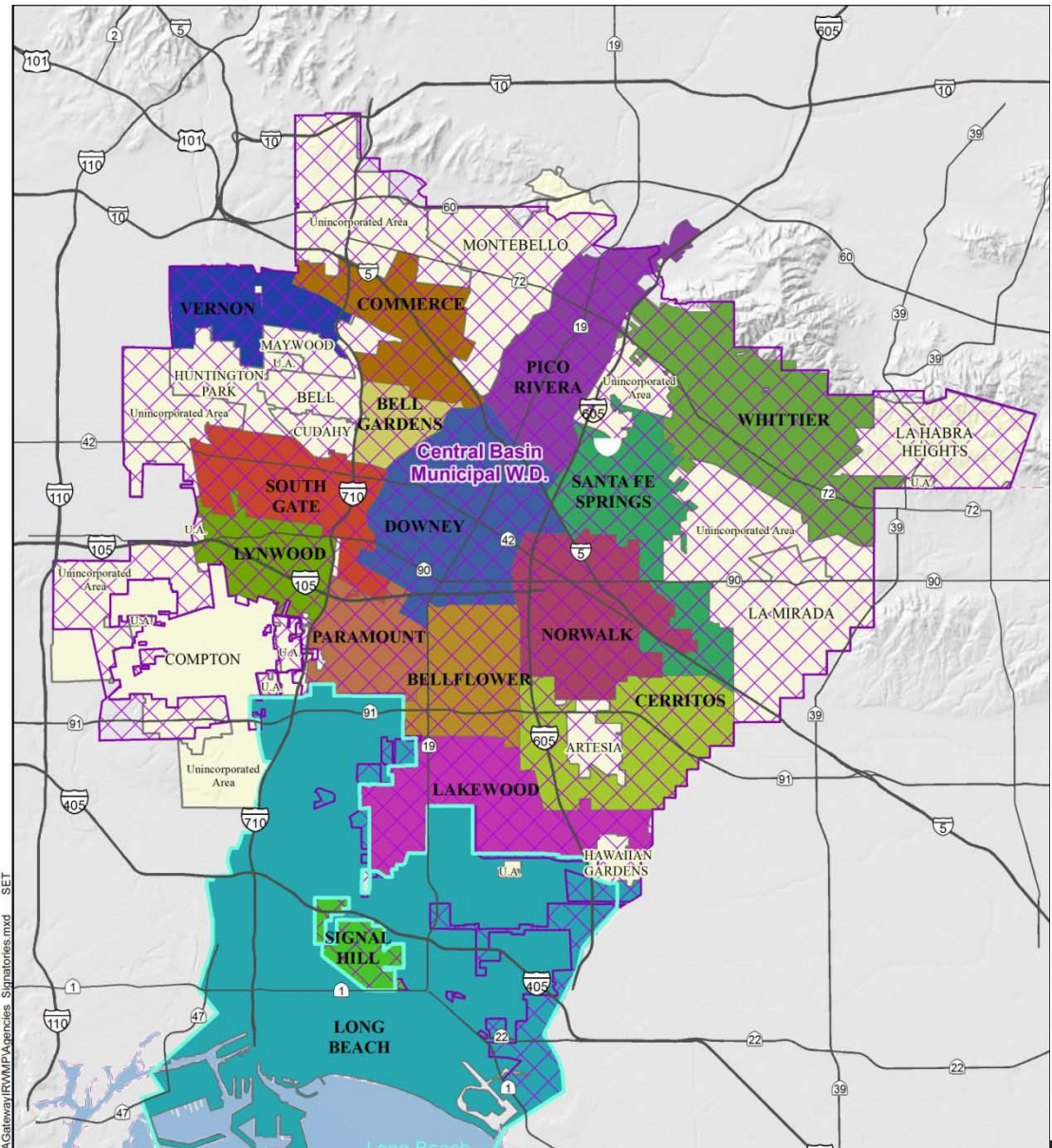




Stakeholder Meeting Agenda

1. Introductions
2. IRWMP Goals and Objectives & Water Resource Strategies **
3. Status of Regional Water Balance
4. Status of Water Quality and Groundwater Review
5. Status of Storm Water Issues
6. In-kind Accounting Reminder
7. Next Steps
8. Questions

The Gateway IRWMP Region





Water Management Strategies:

- Ecosystem restoration
- Environmental and habitat protection and improvement
- Groundwater management
- Storm water capture and management
- Water quality protection and improvement
- Conjunctive use
- Land use planning
- Watershed planning
- Economic Incentives (Grants, Loans, Pricing)
- Conveyance
- Water supply reliability
- Flood management
- Recreation and public access
- Water conservation
- Water recycling
- Imported water
- Storage
- Water and wastewater treatment
- Treatment methodologies
- Water transfers
- Desalination
- Recharge area protection
- System re-operation



Gateway Region IRWM Plan Goals and Objectives:

- Identify and address the water dependent natural resources needs of the Gateway Region Watersheds.
- Protect and enhance water quality.
 - *Objective:* Attain required TMDL levels in accordance with their individual schedules.
 - *Objective:* Effectively reduce major sources of pollutants and environmental stressors in the region.



Gateway Region IRWM Plan Goals and Objectives:

- Optimize and ensure water supply reliability.
 - *Objective:* Continue and enhance water use efficiency measures to meet 20X2020 per capita water use targets.
 - *Objective:* Expand regional water recycling facilities and recycled water distribution to help provide reliable water sources.
 - *Objective:* Systematically upgrade aging water infrastructure in the Region.
- Coordinate and integrate water resource management.



Gateway Region IRWM Plan Goals and Objectives:

- Provide stewardship of the Region's water dependent natural resources through enhancement of amenities and infrastructure.
 - *Objective:* Create habitat, open space, and water-based recreational opportunities in the Region.
- Manage flood and storm waters to reduce flood risk and water quality impacts.
 - *Objective:* Install or optimize water monitoring to effectively manage storm water in the Region. Obtain, manage, and assess water resources data and information.

Water Balance





Sources: 2010 Urban Water Management Plans (UWMP)

- Bellflower-Somerset Mutual Water Company
- California Water Service Company – East Los Angeles District
- Central Basin Municipal Water District
- City of Cerritos
- City of Compton
- City of Downey
- City of Huntington Park
- City of Lakewood
- City of Lynwood
- City of Monterey Park
- City of Paramount
- City of Santa Fe Springs
- City of South Gate
- City of Vernon
- City of Whittier
- Golden State Water Company – Artesia
- Golden State Water Company – Bell/Bell Gardens
- Golden State Water Company – Florence-Graham
- Golden State Water Company – Norwalk
- Golden State Water Company – Southwest
- Long Beach Water Department
- Montebello Land and Water Company
- Orchard Dale Water District
- Park Water Company
- Pico Rivera Water Authority
- Pico Water District
- Suburban Water District



Sources: Other

- Central Basin Municipal Water District 2011 UWMP
- City of Bellflower Municipal Water System 2011 Annual Report
- Monterey Park Market Place Supplemental EIR
- Southern California Association of Governments (SCAG)
- Water Replenishment District of Southern California Monthly Production Summary (Acre-feet) for 2004-2010



Methodology

- Data was extracted from the 2010 UWMPs for every water purveyor within in the Gateway Region:
 - Service area population from 2015 through 2030 in 5-year increments
 - Deliveries and supplies from 2015 through 2030 in 5-year increments
 - SBx7-7 baselines and targets
 - Supply and demand comparisons for single-dry years and multiple-dry years from 2015 through 2030 in 5-year increments

Methodology

	A	E	F	H	I
88	2030	Single Dry Year		Multiple Dry Year 1	
89	Water Supplier	Supply Totals2	Demand Totals2	Supply Totals3	Demand Totals3
90	Bellflower-Somerset Mutual Water Company	5766.2	7290	5735.78	7290
91	California Water Service Company - East Los Angeles District	20035	20035	19269	19269
92	City of Cerritos	15160	13400	14950	13880
93	City of Compton	9099	10497	8819	10612
94	City of Downey	20027	20027	20027	20027
95	City of Huntington Park	6449	6552	6449	6552
96	City of Lakewood	10847	10595	10757	10595
97	City of Lynwood	8443	7818	7786	7668
98	City of Monterey Park				
99	City of Paramount	9866	8267	9866	8267
100	City of Santa Fe Springs	6287.4	8237	6287.4	8237
101	City of South Gate	12576	12576	12576	12576
102	City of Vernon	21839	13800	21839	13800
103	City of Whittier	8511	8511	8428	8428
104	Golden State Water Company - Artesia	7049	7049	7014	7014
105	Golden State Water Company - Bell/Bell Gardens	6372	6372	6357	6357
106	Golden State Water Company - Florence-Graham	6509	6509	6434	6434
107	Golden State Water Company - Norwalk	6823	6823	6788	6788
108	Golden State Water Company - Southwest	40300	40300	40025	40025
109	Long Beach Water Department	70677	70677	70677	70677
110	Montebello Land and Water Company	3622	3399	3319	3109
111	Orchard Dale Water District	2594	2326	2594	2326
112	Park Water Company	16269	16269	17067	17067
113	Pico Rivera Water Authority	5779	5727	5779	5727
114	Pico Water District	5779	5727	5779	5727
115	Suburban Water Systems	22994	20927	22994	20927
116					



Methodology

- Gaps were filled in using other sources:
 - SCAG city population forecasts
 - Water demand information... and combined with the SBx7-7 baseline and target information for surrounding areas

Methodology

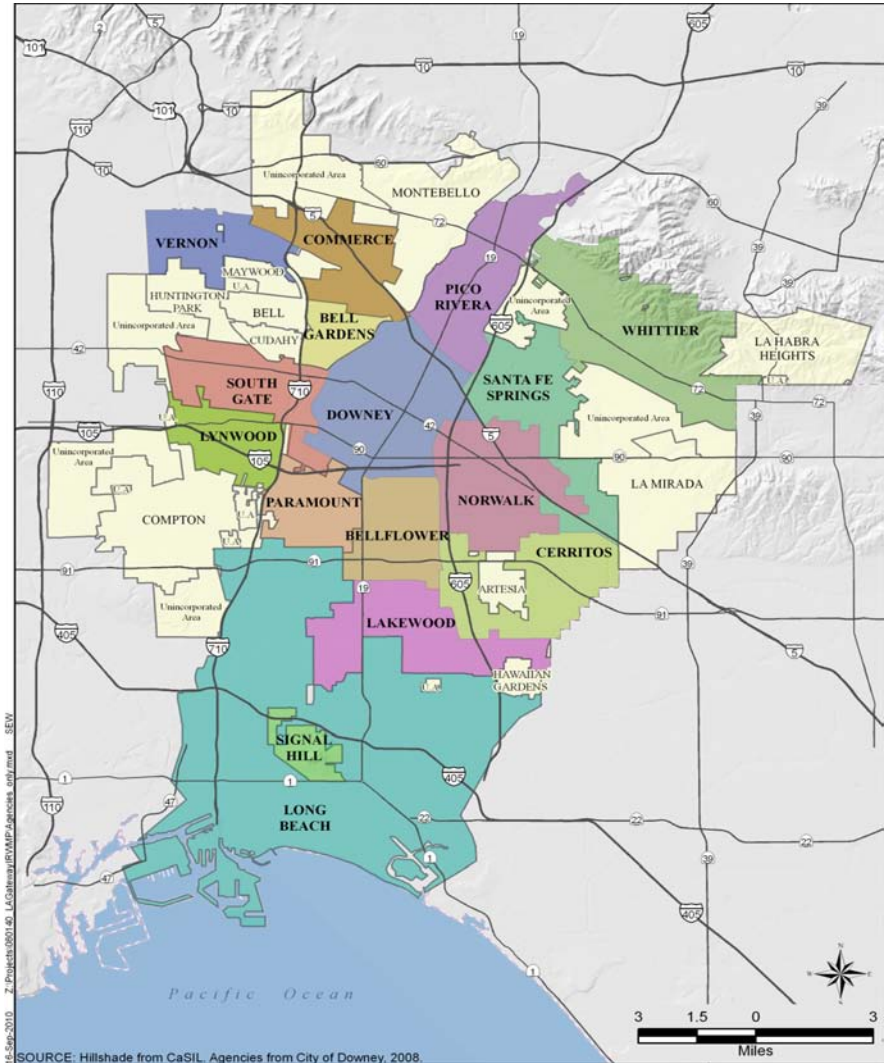
33		Bellflower-Somerset Targets			
34		Baseline (gpcd)	Interim (gpcd)	Target (gpcd)	
35		117	108.5	100	
36					
37		2015	2020	2025	2030
38	Bellflower-Somerset Population	46230	46460	46690	46920
39	Bellflower SCAG Population	118538.4615	118538.4615	118538.4615	118538.462
40					
41	Bellflower MWS + Home Gardens	2015	2020	2025	2030
42	Population	16595.38462	16595.38462	16595.38462	16595.3846
43	Baseline Demand (AFY)	2174.935682	2174.935682	2174.935682	2174.93568
44	Demand with Conservation (AFY)	2016.927534	1858.919386	1858.919386	1858.91939
45					



Cities Accounted For

- Artesia
- Bell
- Bell Gardens
- Bellflower
- Cerritos
- Commerce
- Compton
- Cudahy
- Downey
- Hawaiian Gardens
- Huntington Park
- La Habra Heights
- La Mirada
- Lakewood
- Lynwood
- Maywood
- Montebello
- Monterey Park
- Norwalk
- Orchard Dale
- Paramount
- Pico Rivera
- Santa Fe Springs
- Signal Hill
- South Gate
- Vernon
- Whittier
- Some Los Angeles County Unincorporated

Cities Accounted For





Water Balance: Average Year Water Supply/Demand

	2010	2020	2030
Supply			
Surface Water	0	0	0
Groundwater	203,600	208,211	205,500
Imported Water	68,800	105,600	105,200
Recycled Water	12,500	29,200	36,700
Total Supply	284,900	343,000	347,300
Demand			
Urban	286,400	325,900	332,200
Agricultural	400	800	800
Recycled	10,900	19,200	21,500
Total Demand	297,700	345,900	354,600
Difference	-12,800	-2,900	-7,200

Note: Values are rounded to the nearest 100 ac-ft/yr. Totals may not add due to rounding.



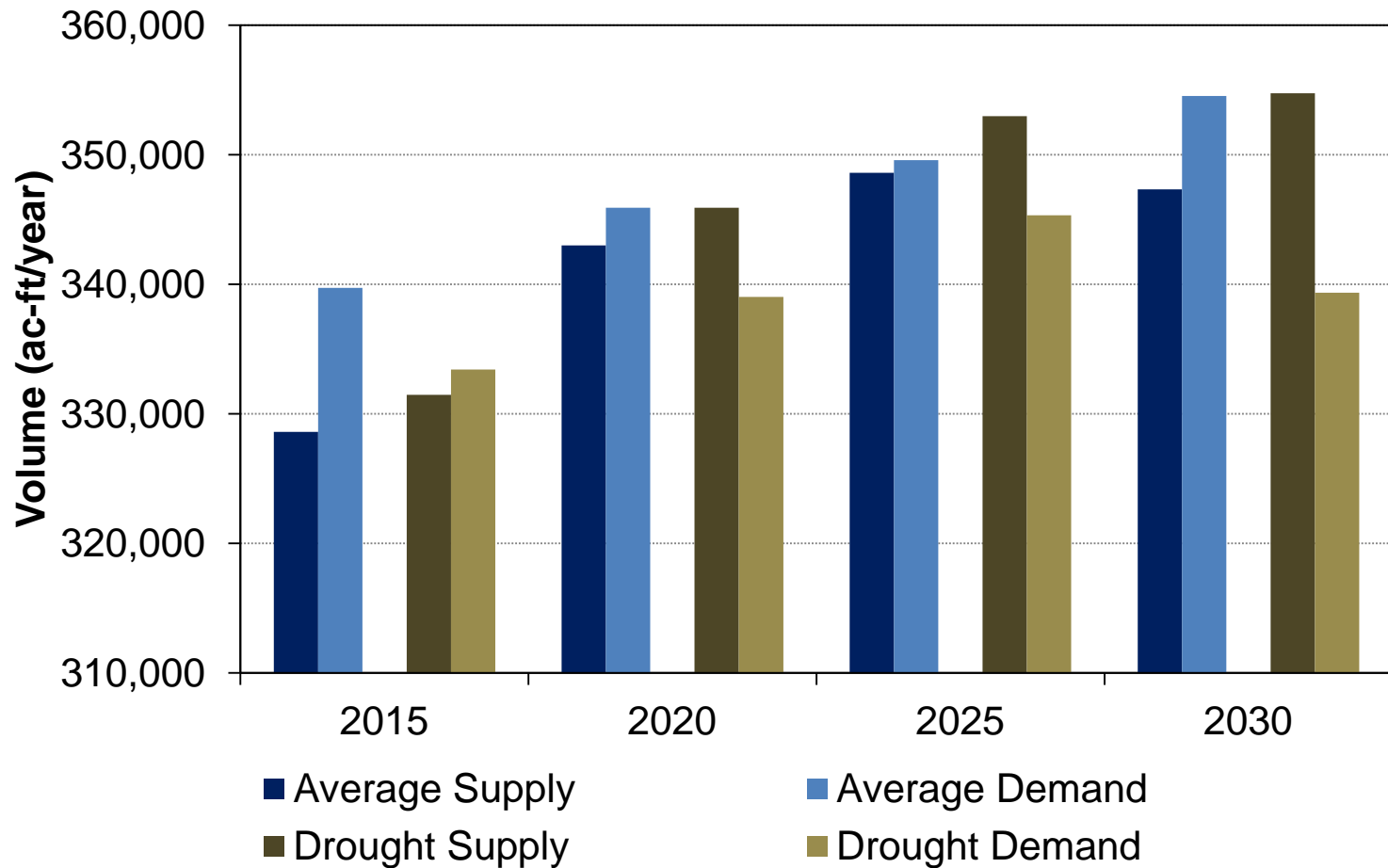
Water Balance: Supply/Demand - Drought Conditions(ac-ft/year)*

	2015	2020	2025	2030
Drought Supply†				
Groundwater	208,500	210,000	209,700	209,800
Imported	101,300	113,400	118,200	119,000
Recycled	21,700	22,500	25,400	25,800
Drought Supply Total	331,500	345,900	353,000	354,700
Drought Demand	333,400	339,000	345,300	339,400
Difference	-2,000	6,900	7,600	15,400

*Values are rounded to the nearest 100 ac-ft/yr. Totals may not add due to rounding.

† Drought supplies assume build out of potential future projects.

Water Balance: Supply/Demand – Average/Drought*



*Drought supplies assume build out of potential future projects.



Water Quality and Groundwater Review

Gateway Region Faces Significant Water Quality Challenges

- Provide Overall Assessment of Regional Water Quality
- Create Baseline from Which Strategies and Projects that *“Protect and Improve Water Quality”* Can Ultimately be Developed



Water Quality Compilation – Scope

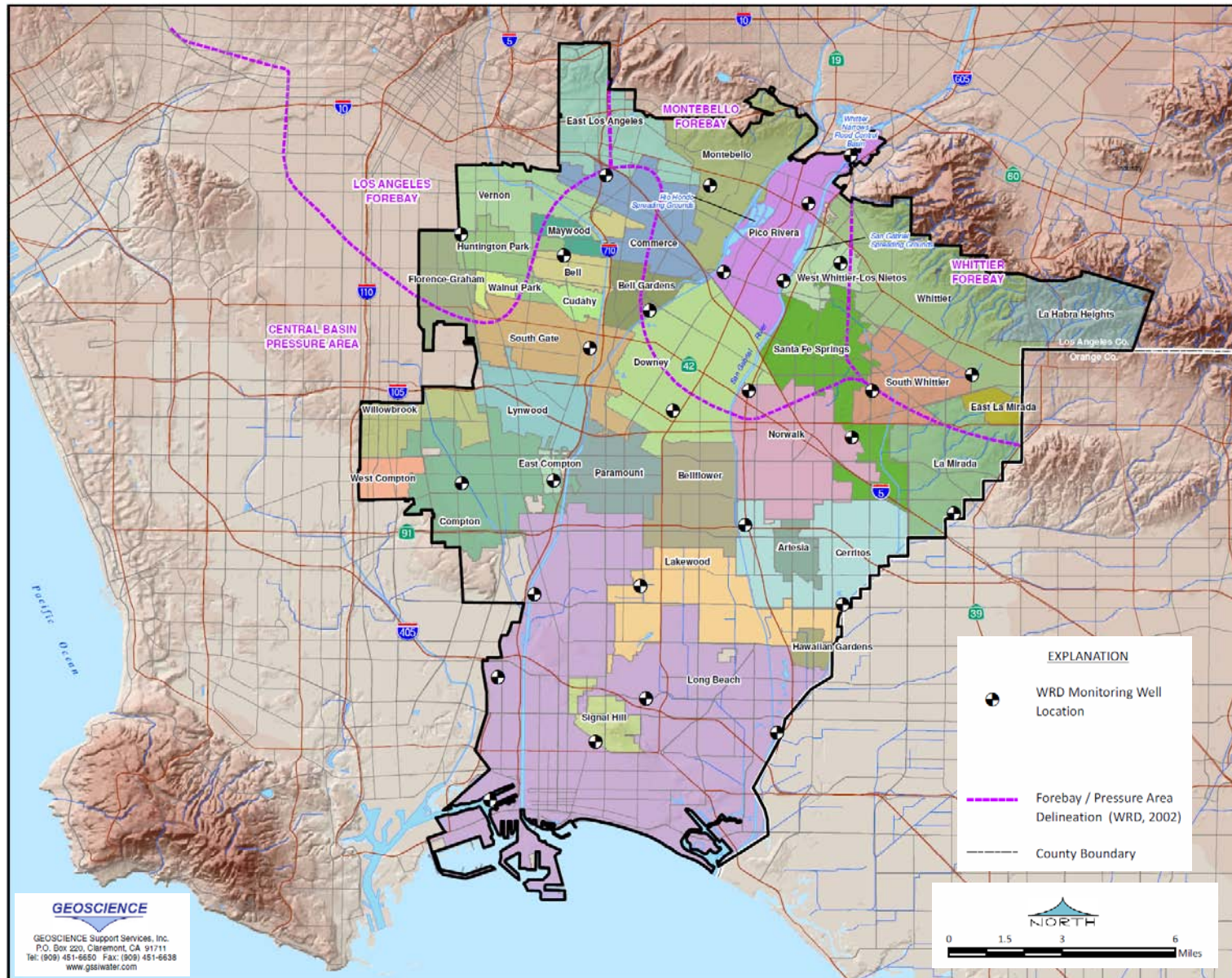
- Query Readily Available Databases
 - Compile Data into Relational Format
 - Review Water Quality Data
 - Evaluate Monitoring Network
- 
- The background of the slide is a blurred image of laboratory glassware, including a graduated cylinder with volume markings (100, 150, 200, 250, 300 ml) and other beakers, suggesting a scientific or analytical context.



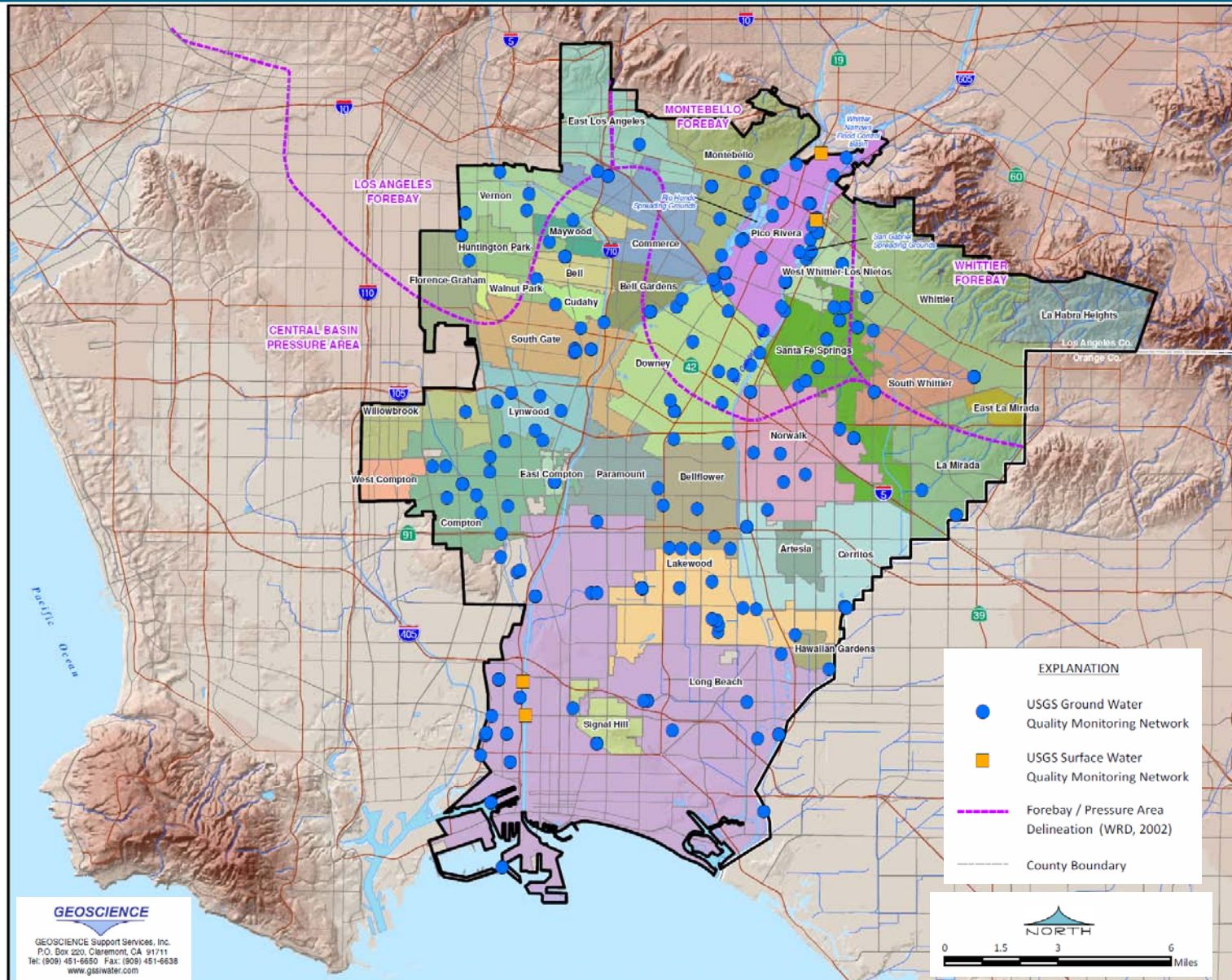
Water Quality – Sources of Data

1. California Department of Public Health
2. Water Replenishment District of Southern California
3. USGS / National Water Information System
4. State Water Resources Control Board – GeoTracker
5. U.S. Environmental Protection Agency

WRD Monitoring Well Locations



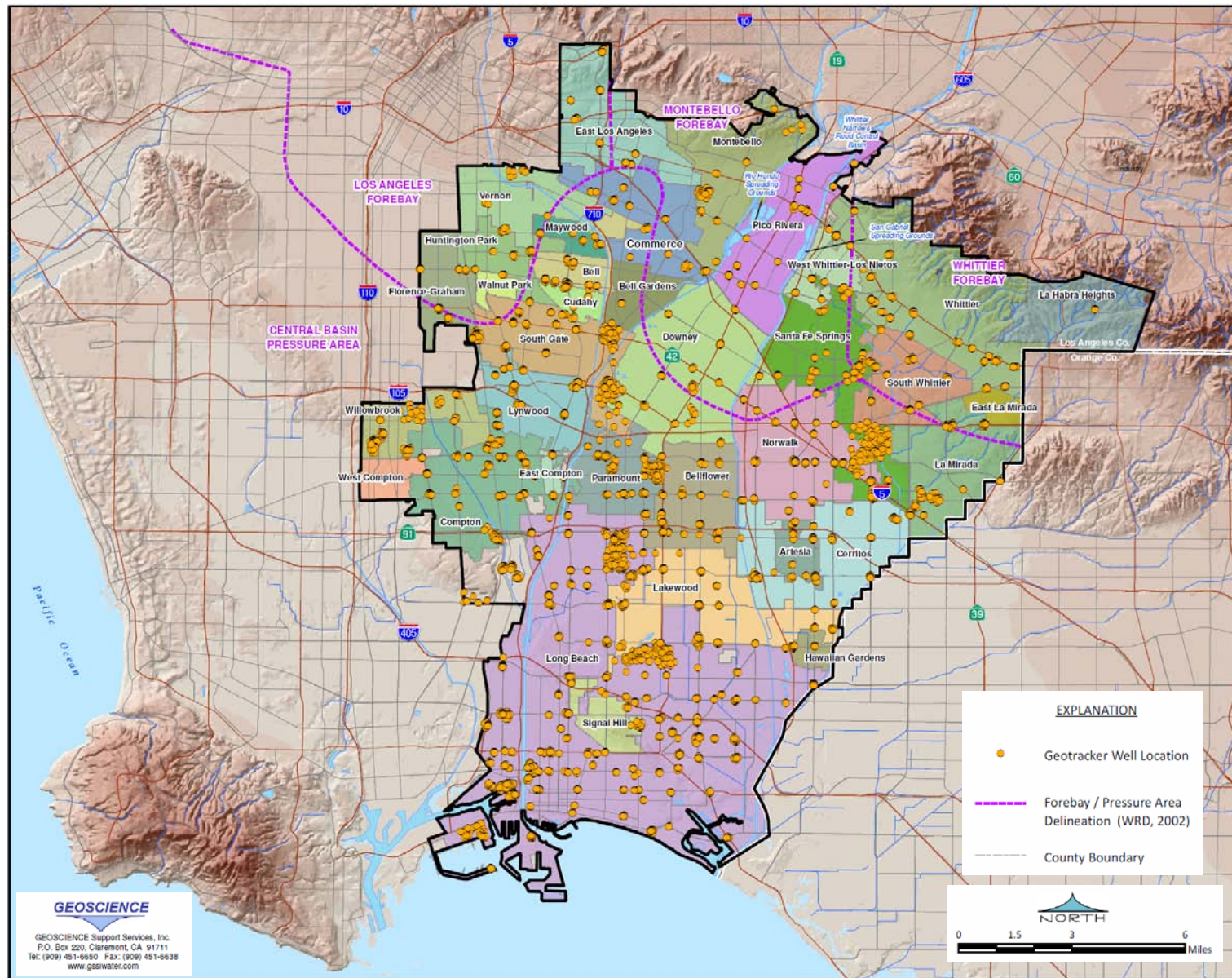
USGS Monitoring Network (Well Locations and Surface Water Sites)



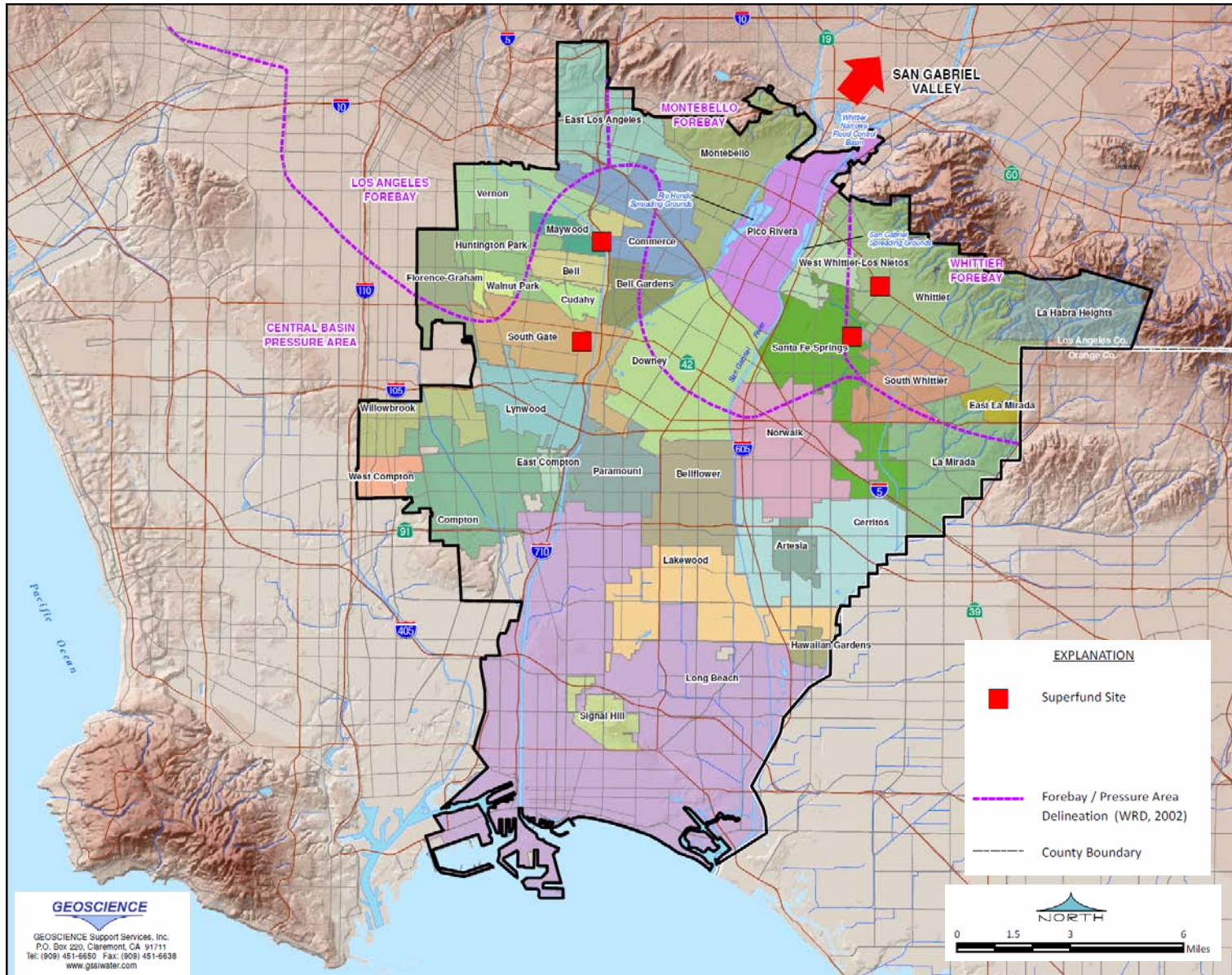
GEOSCIENCE

GEOSCIENCE Support Services, Inc.
P.O. Box 220, Claremont, CA 91711
Tel: (909) 451-6650 Fax: (909) 451-6638
www.gsswater.com

GeoTracker Monitoring Well Locations



EPA Final Superfund Sites



EXPLANATION

- Superfund Site
- Forebay / Pressure Area Delineation (WRD, 2002)
- County Boundary



GEO SCIENCE

GEO SCIENCE Support Services, Inc.
 P.O. Box 220, Claremont, CA 91711
 Tel: (909) 451-6650 Fax: (909) 451-6638
 www.gsiwater.com



Water Quality Compilation – Scope of Data

- CDPH (80 systems; 1,457 sites)
 - 1974 to 2012
- WRD (157 well completions)
 - 1992 to 2012
- USGS (308 wells)
 - 1978 to 2011
- USGS Surface Waters (4 locations)
 - 1966 to 1999
- GeoTracker (800 sites and 19,309 monitoring wells)
 - 1965 to 2012



Water Quality Database - Status

- Available Water Quality Databases Queried
- In Process of Obtaining Data Releases for Production Well Locations and Screen Intervals (Confidential)
 - 22 Releases To Date:
 - Artesia
 - Bellflower
 - Bell Gardens
 - Cerritos
 - Commerce
 - Downey
 - Lakewood
 - Long Beach
 - Lynwood
 - Norwalk
 - Paramount
 - Pico Rivera
 - Santa Fe Springs
 - Signal Hill
 - South Gate
 - Vernon
 - Whittier
 - Tract 180 Water Company
 - Maywood Mutual Water Company #3
 - Suburban Water Systems - La Mirada
 - Central Basin MWD
 - Golden State Water Company



Storm Water Issues



Storm Water Issues

Two major tasks:

1. Identify water quality issues and problem areas
2. Identify flooding issues and problem areas

Summary of approach for identifying problem areas:

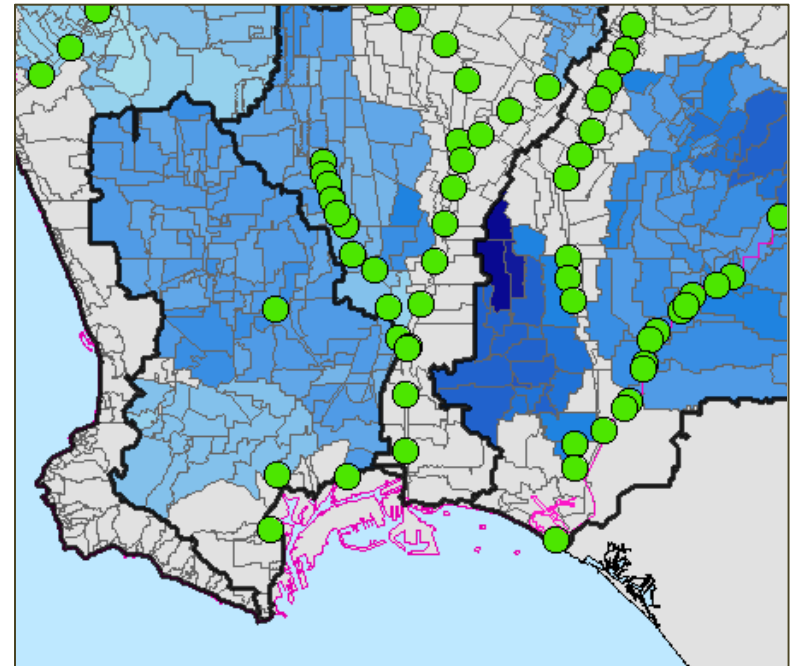
- **Water quality:** use existing watershed models to quantify potential for pollutant loading.
- **Flooding:** survey stakeholders regarding local issues.

Storm Water Issues: Water Quality Analysis

Use of existing watershed models:

- Provides a quantitative method to evaluate “Hot Spot” areas in terms of discharges of flow, sediment, nutrients, metals, and bacteria. (at subwatershed scale, see figure below)
- The available LSPC model was developed and calibrated/validated for Los Angeles County DPW.

*Already-modeled
subwatersheds in
IRWMP area*

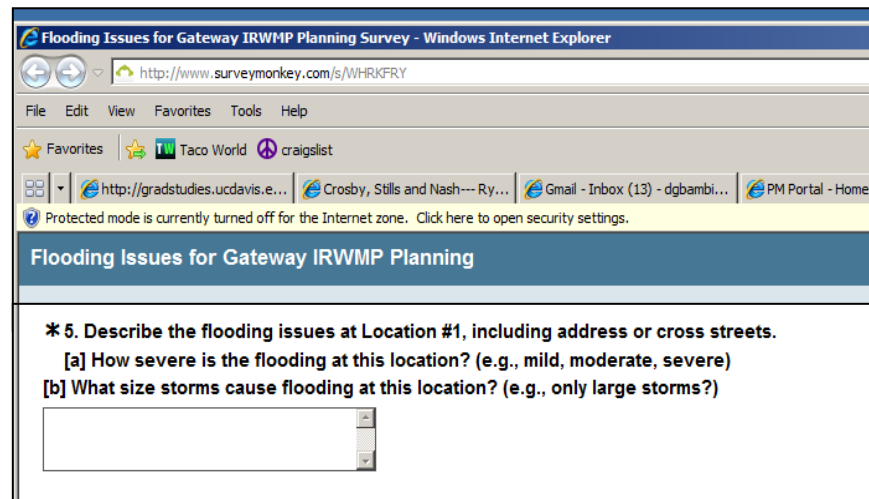


Storm Water Issues: Flooding Analysis

Use of survey for stakeholders:

- Flooding issues are generally localized and not amenable to “desktop” analyses
- Survey created for stakeholders to summarize their knowledge of problem areas and issues
- Email already sent to stakeholders

<http://www.surveymonkey.com/s/WHRKFRY>



The screenshot shows a web browser window titled "Flooding Issues for Gateway IRWMP Planning Survey - Windows Internet Explorer". The address bar displays the URL "http://www.surveymonkey.com/s/WHRKFRY". The browser's menu bar includes "File", "Edit", "View", "Favorites", "Tools", and "Help". Below the menu bar, there are "Favorites" and "History" sections. The "Favorites" section shows "Taco World" and "craigslist". The "History" section shows "http://gradstudies.ucdavis.e...", "Crosby, Stills and Nash--- Ry...", "Gmail - Inbox (13) - dgbambi...", and "PM Portal - Home". A yellow warning bar at the bottom of the browser indicates "Protected mode is currently turned off for the Internet zone. Click here to open security settings." The main content area of the browser displays the survey title "Flooding Issues for Gateway IRWMP Planning" and a question: "* 5. Describe the flooding issues at Location #1, including address or cross streets." Below the question, there are two sub-questions: "[a] How severe is the flooding at this location? (e.g., mild, moderate, severe)" and "[b] What size storms cause flooding at this location? (e.g., only large storms?)". A text input field is visible below the sub-questions.



Storm Water Issues: Next Steps

- Next Steps:
 - Water quality “hot spots” will be reported with maps that provide a relative comparison of the various subwatersheds
 - One map for each pollutant.
 - Flooding issues reported during survey will be summarized and locations will be mapped
 - Severity and frequency will be summarized as possible.
 - A memo will be generated with these summaries and graphics
 - Memo will be sent to stakeholders for comment prior to the next meeting
 - Memo to be incorporated into draft IRWM Plan.

In-kind Work Accounting

GWMA In-Kind Expense Rate Certification

Date: _____

Name: _____

Title: _____

Organization: _____

Address: _____

Phone: _____

Email: _____

I hereby certify that I am a paid employee of _____ actively represent that organization in the Gateway IRWMP project and my participation for that organization would constitute In-Kind expense development.

My hourly charge rate for that organization, including related overhead is _____

My electronic signature is _____

Signature: _____ Date: _____

Gateway IRWMP In-Kind Timesheet

Name: _____

Organization: _____

Period: _____

Date mm/dd/yy	Hours*	Task	Description of Work**
TOTAL IN-KIND HOURS	0		

*nearest 1/2 hour
**if meeting, give purpose

I certify this accounting as true and correct,

Signature

Note: Electronic signature must be on file



In-Kind Accounting

- Fill out the “GWMA In-Kind Expense Rate Certification” form.
- Provide a copy of your pay stub or other evidence that authenticates your hourly pay rate that you provided in the rate certification form above. This too only needs to be done once. Please block out and obscure any social security numbers, etc. not needed to verify your pay rate.
- Fill out the “Gateway IRWMP In-kind Timesheet” Task numbers and corresponding descriptions of those tasks are provided with the timesheet. Timesheets can be submitted monthly but not less than once every quarter
- Send all three items above to Bill:
 - Scanning and e-mailing them to GatewayIRWMP@geiconsultants.com
 - Mailing them to GEI Consultants, Inc., 2868 Prospect Park Drive, Suite 400, Rancho Cordova, CA 95670
 - Or bringing them to any Stakeholder Meeting.

Next Steps

- Continue with data collection:
 - Water Balance
 - Water Quality/Groundwater
 - Storm water issues – (please respond to survey)
- Refine data base tool <http://arcgis02.geiconsultants.com/gateway/>
- Refined Water Management Strategies
- Project Information Form



Shortcut to Gateway IRWMP Project Information Form_distributed.pdf.lnk

- **Next Stakeholders Meeting May 10**