



THE CITY OF SAN DIEGO

# **Watershed Sign Program Final Report**

August 28, 2008



## CTCDC FINAL REPORT

<b>Date</b>	August 28, 2008
<b>Experiment</b>	Watershed Sign Program
<b>Sponsor</b>	John Fisher
<b>Supporting Agency &amp; Contact</b>	City of San Diego, Jeff Pasek WMWD, Tedi Jackson
<b>Next Appearance Before the CTCDC</b>	September 18, 2008
<b>Milestones</b>	Milestone matrix in appendix

### **Problem**

In the Manual on Uniform Traffic Control Devices, there is no design or specification for a watershed sign that identifies water sources, particularly drinking water resources. Water is an increasingly valuable and scarce resource in California, and there have been many educational efforts to protect water quality. As a hybrid of several types of advisory and guide signs, the watershed sign is designed to create opportunities for the public to learn about the importance of San Diego's watersheds and encourage environmental stewardship of the watersheds by members of our community. The sign's purpose is twofold: to serve as a reminder to motorists that they are traveling through a watershed, and to serve as a tool to increase overall awareness that the responsibility of preserving the cleanliness of our watersheds rests on the entire community. By taking care of our watersheds, we are also protecting the water quality of our drinking source water reservoirs and groundwater basins.

### **Preliminary Investigations**

Before establishing a pilot program, extensive research was done to review existing signs and efforts. Our research compiled information from Texas, Oregon, Washington, Georgia, and California as well as from the east coast including Chesapeake Bay through Maryland, Virginia and Pennsylvania.

### **Proposed Solution**

The City of San Diego began the process to create design standards for this type of sign and how to install them at the proposed locations. The City of San Diego first began coordinating with the local Caltrans offices, but discovered there was no current design standard for this sign type. The City of San Diego was referred to the Caltrans Headquarters located in Sacramento for information on developing sign design templates and specifications.

Through coordination with Caltrans Headquarters, the City of San Diego was referred to the Signs and Work Zone branch of the State office. This is where we learned about the California Department of Forestry watershed sign project. However, their proposed fish graphic was not appropriate for Southern California because Southern California does not have year-long running rivers, streams and creeks that have fisheries and our message was not to protect fisheries. The next step was to meet with the California Traffic Control

Devices Committee [CTCDC] to get approval for sign experimentation in hopes of getting a universal sign design accepted as a uniform traffic control device.

### **Status**

The City of San Diego has identified and addressed challenges, collected and evaluated results, and is making a recommendation to the CTCDC to adopt the watershed sign as part of the Manual on Uniform Traffic Control Devices.

Due to the staffing and funding constraints of the City of San Diego, Western Municipal Water District and the Inland Empire Waterkeeper are willing to manage and follow-through the approval process of the Watershed Sign Program. Tedi Jackson, former Supervising Public Information Officer for the City of San Diego Water Department, but now the Public Affairs Manager at Western Municipal Water District, is the original project manager for the program and is helping to maintain program consistency throughout this process as well as secure additional interest in the Santa Ana River Watershed area.

### **Challenges**

Since the inception of this pilot project design and implementation, there have been several challenges that have affected the momentum of the program. One challenge was having the incorrect sign design installed. This quality assurance mistake caused a delay in the schedule for advertising and possible sign dedication ceremony event. Another challenge was losing the key leaders of the program. The City of San Diego's Watershed Manager retired and the Supervising Public Information Officer relocated her career to Riverside. This major staff change led to a shortage of staff resources and also a hiatus of the program to educate new City management. A third challenge was funding. With the change of staff also came a change in budget and priorities. The Water Operations Division streamlined their budget, cutting funding to projects and programs that were beyond day-to-day operations and maintenance. Therefore, a sign dedication ceremony was never held and other program items, such as supplemental advertising and survey outreach, were curtailed. The watershed sign program was left to its supporters and individualized efforts to spread the word and educate various communities.

### **Evaluation**

Despite the challenges, the program proved to be successful in gaining support throughout California and gained over 4 million gross impressions from program efforts.

In the original proposal, the program measurements identified were the number of: support letters, advertising impressions, website hits, and surveys taken. Using these measurements, the total of gross impression were 3,116,771.

The breakdown for these initial efforts to date are as follows: 22 letters of support, 2,653 website visits, and 18 surveys taken. Through funding from the Metropolitan Water District and the San Diego County Water Authority, media ads were placed in various media outlets to promote public awareness of the watershed signs. Ads were strategically placed in the vicinity of the three pilot sign locations. Newspaper ads were placed in the

North County Times and East County Gazette and also in the San Diego Family Magazine and the Natural Guide. In addition, cinema ads were shown movies theaters closest to the sign locations and radio public service announcements were secured to reach out to the motorists. This advertising blitz yielded a gross impression of over 3,114,078 people.

In addition to these efforts, more public awareness was generated through the City of San Diego Annual Drinking Water Reports, program newsletters, and partnerships with the Reuben H. Fleet Center and the California Watershed Network. Through these materials and partnerships, a new wave of interest and support was established and the number of educational opportunities increased. These additional efforts yielded a gross impression of over 1,583,287 people.

Combining the initial and additional program measurements, there is a significant grand total of over 4,700,058\* gross impressions.

Please reference the Map of Interested Stakeholders in the appendix, which demonstrates the numerous agencies and organizations that have already expressed interest in using the sign. There is clearly a need to establish a unifying design that will maximize the exposure and education of the “keep it clean” message in the areas that are near drinking water resources. Each agency and organization that has expressed interest has already established their own educational campaign that will supplement the implementation of additional watershed signs throughout California.

### **Benefits**

The benefits identified at the start of this pilot program remain the same, as it satisfies related goals to control urban runoff and protect water quality at all levels: local, regional, state and federal.

#### Local Benefits:

- Advances the City’s storm water pollution prevention goals
- Implements the San Diego Water Department’s Watershed Sanitary Survey recommendations for public education on source water protection
- Fosters cross-jurisdictional coordination

#### Regional Benefits:

- Supports protection of water quality in drinking source water reservoirs. These reservoirs are part of the regional water supply infrastructure, supplying drinking water to 1.5 million people in the City of San Diego and neighboring cities and communities
- Supplements the San Diego Regional Water Quality Control Board’s efforts to better control urban runoff

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\* Please note that Western Municipal Water District and Inland Empire Waterkeeper’s own outreach and educational efforts have not been added to these numbers, which in turn would yield an even greater number of gross impressions. More information about their collaborative program efforts can be found in the appendix.

### State Benefits:

- Creates a recognizable and uniform sign design throughout the state
- Supplements Caltrans's "Don't Trash California" anti-litter campaign, because it helps decrease trash or pollutants on roadways



### Federal Benefits:

- Supplements the U.S. Environmental Protection Agency's efforts to increase awareness and education of the importance of preserving our natural resources; and the USEPA's drinking source water protection program

### **Conclusions**

The watershed sign program helps to create opportunities for the public to learn about the importance of San Diego's watersheds and encourage environmental stewardship of the watersheds by members of our community. Over 4 million gross impressions have been obtained in our program efforts and partnerships to date. There are more possibilities for increasing education opportunities by authorizing other agencies and organizations throughout California to use and install these types of signs. With a uniform sign design, the sign becomes a recognizable icon throughout California and maximizes visual awareness of all our efforts to keep watersheds clean.

### **Recommendation**



The City of San Diego, along with the Western Municipal Water District and Inland Empire Waterkeeper, recommend that the CTCDC adopt the watershed sign as part of the Manual on Uniform Traffic Control Devices. By doing so, the watershed sign will be available for use by other agencies and organizations throughout California.

### **Applicant's Name, Address, Phone, and Fax**

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**Watershed Sign Program  
Program Measurements**

Last updated: 8/28/08

<b>Original Program Measurements Identified</b>				
<b>Activity</b>	<b>Length</b>	<b>Frequency</b>	<b>Unit</b>	<b>Total Gross Impressions</b>
East County Gazette ad	8 weeks	Weekly	45,000 - 60,000 weekly	420,000
North County Times ad	3 weeks	Sat.	21,653 daily newspapers distributed	64,959
San Diego Family Magazine: June 2007 and July 2007 ad	Monthly	2 months	120,000 per month	240,000
San Diego Family Magazine: July 2007 bulletin feature	Monthly	1 month	120,000	120,000
Natural Guide ad	Bi-annual	1	100,000	100,000
Clear Channel Radio PSA	20 spots	4 weeks	n/a	138,200
Billboard 1: Magnolia Ave/Mission Gorge Rd	1 month	30	31,900 per day	957,000
Billboard 2: Winter Gardens Blvd/Woodside Ave	1 month	30	31,900 per day	957,000
Cinema Ad	Daily	6 weeks	n/a	116,919
City of San Diego Online Survey	Ongoing	Ongoing	n/a	18

**Watershed Sign Program  
Program Measurements**

Last updated: 8/28/08

Activity	Length	Frequency	Unit	Total Gross Impressions
City of San Diego Program Webpage Visits in 2007	Ongoing	Ongoing	n/a	1,638
City of San Diego Program Webpage Visits to Jan - July 2008	Ongoing	Ongoing	n/a	1,015
Letters of Support	Ongoing	Ongoing	n/a	22
			SUB TOTAL	3,116,771
<b>Additional Measurements Obtained</b>				
City of San Diego Annual Drinking Water Report - 2005	n/a	1	n/a	570,200
City of San Diego Annual Drinking Water Report - 2006	n/a	1	n/a	570,000
City of San Diego Watershed Sign Program Newsletter Issue 1	Quarterly	1	n/a	342
City of San Diego Watershed Sign Program Newsletter Issue 2	Quarterly	1	n/a	342
City of San Diego presentation: San Diego Regional Storm Water Copermittees	n/a	a	n/a	39
City of San Diego presentation: Watershed Stewardship Initiative Group	n/a	1	n/a	25

**Watershed Sign Program  
Program Measurements**

Last updated: 8/28/08

Activity	Length	Frequency	Unit	Total Gross Impressions
City of San Diego presentation: Project Clean Water - Outreach Workgroup and Ed TAC	n/a	1	n/a	30
City of San Diego: Cityscapes 3-minute video on Watershed Protection	3-minutes	n/a	n/a	Data pending.
Reuben H. Fleet Center: Program Kiosk	Since July 2007	Ongoing	n/a	402,691
Reuben H. Fleet Center: Webpage	Since July 2007	Ongoing	n/a	36,874
California Watershed Network Webpage	1 month	1	n/a	2400
California Watershed Network Fall Forum - attendance	1 day	1	n/a	200
California Watershed Network Fall Forum - petition	1 day	1	n/a	47
Tracking Log of Calls and Emails in 2007 and 2008	Ongoing	Ongoing	n/a	97
			SUB TOTAL	1,583,287
			<b>GRAND TOTAL</b>	<b>4,700,058</b>



THE CITY OF SAN DIEGO

# Website



## WATER DEPARTMENT

[WATER DEPARTMENT HOME](#) | [GENERAL INFORMATION](#) | [CITY LAKES AND RECREATION](#) | [WATER & SEWER BILL/RATES](#) | [WATER CONSERVATION](#) | [RECYCLED WATER](#) | [WATER QUALITY](#) | [INFRASTRUCTURE/CAPITAL IMPROVEMENTS](#)

# Water Operations Environment



## Watershed Sign Program

The City of San Diego Water Department recently launched a pilot Watershed Sign Program in San Diego County. This program has placed signs informing motorists that they are entering a watershed where a drinking water reservoir is located. The goals of the Watershed Sign Program are to increase public awareness of San Diego's watersheds and encourage environmental stewardship by our community members.



Watershed Sign

In 2006, the Caltrans Traffic Control Devices Committee unanimously approved this pilot program in the San Diego district. The Metropolitan Water District of Southern California and the San Diego County Water Authority awarded funding to assist with the production, installation, and a public awareness campaign for these signs.

- [Fact Sheet](#) (PDF: 237K)
- [Letter of Support](#) (PDF: 103K)
- [Program Survey](#)
- [Newsletter #1](#) (PDF: 368K)
- [Print Ad](#) (PDF: 925K)
- [Billboard Ad](#) (PDF: 1Mb)

The design of the sign is simple and adaptable. With enough support, we hope that this sign can be adopted by Caltrans as a standard sign and be used by other agencies and organizations throughout California to designate the watershed of any critical water body, such as water supply reservoirs, groundwater basins, or coastal lagoons.

Please join in our efforts by writing a [letter of support](#) (PDF: 103K) and [taking our survey](#). Thank you for your continued support. For information about how you can support the program and become involved, please call (619) 232-2112 ext. 104.

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# Survey



# **City of San Diego Water Department Watershed Sign Program**

## **Watershed Sign Program Survey**

We appreciate you taking the time to complete our quick 12-question survey. It should take you approximately 2 minutes or less to complete. Please remember this survey is anonymous. We sincerely value your responses, as they will help us to best evaluate the current effectiveness of our program. Thank you.

1. Please indicate your age group:

- a. 16 – 35
- b. 36 – 55
- c. 55 and above

2. Are you aware of litter problems on roadways and state highways?

- a. Yes
- b. No

3. Are you aware that litter on roadways and state highways can affect our water supply?

- a. Yes
- b. No

4. Are you familiar with what a watershed is?

- a. Yes
- b. No

5. What is a watershed?

- a. An area that has a lot of rain
- b. A land area that drains into a river system or body of water
- c. A water filtration system
- d. I'm not sure

6. Have you heard about the new Watershed Signs?

- a. Yes
- b. No

7. If yes, how? Please mark all that apply:

- TV
- Radio
- Billboard
- Print Publication
- Word of mouth
- Movie Advertisement
- Driving
- Other \_\_\_\_\_
- I have not heard about it

8. Have you seen a Watershed Sign?

- a. Yes
- b. No

9. If you have seen a Watershed Sign, where did you see the sign? Please mark all that apply:

- Interstate 8 Freeway
- Interstate 15 Freeway
- State Route 67
- I saw the sign, but can't remember the location
- I did not notice a sign

10. If you noticed the Watershed Sign, did the sign affect how you viewed the area?

- a. Yes, I understood I was in a watershed, but not quite sure what that meant
- b. Yes, I understood/was reminded that I was in an area that needs to be protected and kept free from litter.
- c. No, it did not change my view of the area
- d. I did not notice a sign

11. If you noticed the Watershed Sign, please mark all that apply:

- I understood my actions could affect the area I was in
- I felt a sense of responsibility for the area
- I did not understand what a watershed was
- I wanted to learn more about watersheds
- It did not make a difference in my thoughts or behavior
- I did not notice a sign
- Other {BOX TO WRITE IN COMMENT}

12. If you would like to express any additional comments, please provide them in the box below.

Thank you for completing our survey!

**Watershed Sign Program Survey Results for 2007**

Last Updated: January 4, 2008

Date	Time	1. Age Group			2. Are you aware of litter problems on roadways and highways		3. Are you aware that litter on roadways and state highways can affect our water supply?		4. Are you familiar with what a watershed is?		5. What is a watershed				
		16-35	36-55	55 and above	Yes	No	Yes	No	Yes	No	An area that has a lot of rain	A land that drains into a river system or body of water	A water filtration system	I'm not sure	
3/16/07	13:15	1				1			1				1		
5/2/07	11:55	1				1			1		1				
5/14/07	17:00			1		1			1				1		
7/18/07	16:43			1		1			1				1		
7/19/07	14:36	1				1			1				1		
7/20/07	10:53			1		1			1				1		
7/30/07	15:24			1		1			1				1		
7/31/07	10:51			1		1			1				1		
8/1/07	12:02	1				1			1				1		
8/2/07	11:28			1		1			1				1		
8/3/07	16:28	1				1			1				1		
11/13/07	18:26			1		1		1		1					1
12/27/07	9:51			1		1			1				1		
<b>Total</b>		<b>5</b>	<b>8</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>12</b>	<b>1</b>	<b>12</b>	<b>1</b>	<b>1</b>	<b>11</b>	<b>0</b>	<b>1</b>	
<b>Survey Total</b>		<b>13</b>													

**Watershed Sign Program Survey Results for 2007**

Last Updated: January 4, 2008

6. Have you heard about the new Watershed Signs?		7. If yes, how? Please mark all that apply									8. Have you seen a watershed sign	
Yes	No	TV	Radio	Billboard	Print Publication	Word of Mouth	Movie advertisement	Driving	Other	I have not heard about it	Yes	No
1									Copermittees meeting			1
1		1	1	1	1	1	1	1		1	1	
1						1						1
		1										1
1									Work in watershed education			1
1						1						1
1									Internet site			1
1									Emailed announcement			1
		1										1
1						1						1
1									Email			1
										1		1
1									Presentation to stormwater copermittees			1
<b>10</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>1</b>	<b>1</b>		<b>2</b>	<b>6</b>	<b>7</b>

**Watershed Sign Program Survey Results for 2007**

Last Updated: January 4, 2008

9. If you have seen a Watershed Sign, where did you see the sign?					10. If you noticed the Watershed Sign, did the sign affect how you viewed the area?				
Interstate 8	Interstate 15	State Route 67	I saw the sign, but can't remember the location	I did not notice a sign	Yes, I understood I was in watershed, but not quite sure what that meant	Yes, I understood/was reminded that I was in an area that needs to be protected and kept free from litter	No, it did not change my view of the area	I did not notice a sign	
1	1	1	1	1			1		
	1						1		
				1				1	
	1						1		
					1				1
					1				1
									1
					1				1
		1				1			
1	3	2	2	6		1	3	1	5

**Watershed Sign Program Survey Results for 2007**

Last Updated: January 4, 2008

11. If you noticed the Watershed Sign, please mark all that apply.						12. If you would like to express any additional comments, please provide them in the box below.
I understood my actions could affect the area I was in	I felt a sense of responsibility for the area	I did not understand what a watershed was	I wanted to learn more about watersheds	It did not make a difference in my thought or behavior	I did not notice a sign	Other
		1	1	1	1	
	1					1
				1		It sis change me since I already care deeply about watersheds and the sign didn't really affect me.
1	1					I hope these signs are the kickoff to a larger more informative public awareness campaign about watersheds. I don't think people will specifically change their behavior by seeing the sign, and if they don't get the magazines the ad is in, they still won't know what a watershed is.
						I have heard about this plan from its conception, and was very happy to finally see a sign on the freeway. Great work, and keep it up: the key to appreciation is education.
						1
						1
						I don't live in the San Diego area, but am a watershed coordinator in California. These signs are a GREAT idea, and I hope that they can be adapted for use throughout the State.
						1
						It is located in the Los Penasquitos Watershed.
						I think the sign could be better placed on an open stretch of the highway, where a driver can see the open basin of the watershed. The sign on Highway 67 is in a dip of the Los Penasquitos Watershed and is in a very confined area between hills, but the sign says entering the san Diego River Watershed. It loses meaning since you have to go back up the hill to get into the San Diego River Watershed. Thanks for the
1	2	1	1	2	5	











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# Press and Media



**City of San Diego Water Department, Operations Division**

**Watershed Sign Program: Media Contacts and Buy Information DETAILS**

Type of Media	Specifications	Estimated Cost	Actual Cost	Paid (MWD = \$11 K and CWA = \$7k)	Name and Contact	Ad size and cost description	Duration
Billboard	Due July 20. Email graphics to : terryleahy@clearchannel.com.	\$2,400.00	\$2,400.00	MWD	Clear Channel	Non-profit billboard placement/ 2 billboards at 2 location. \$1200 ea.	One month, beginning August 20
Print Advertisement	6.4" x 5.25". 1/8 page horizontal. To be used in June/July. Email to donna.brenner@sddt.com	\$1,173.85	TBD	MWD	San Diego Daily Transcript	Ad to cover all 3 watersheds. TBD by AC	TBD for August 2007
	7.61" wide x 4" high. Email pdf to: sally.holmes@uniontrib.com. To be used in June or July	\$1,588.00	TBD	TBD	Union Tribune	1/8 page ad, b/w, and online ad. Runs Thursday in Metro, North, and East.  Per last conversation = \$1013.00 for Friday ad	One day, three newspapers - ON HOLD.
	Due May 21st (10:00 am). Email to: giovanni@sandiegofamily.com PDF, TIFF, EPSB/w square: 4.833" X 4.736".	\$1,770.00	\$1,770.00	MWD	Family Magazine	1/3 page ad, b/w, at approx. . Additional 2 paragraphs of editorial in July. \$885ea.	Monthly for 2 months.
	Due May 25. Email: bhorvitz@nctimes.com. B/w 3" x 4" 1/8 th page ad. PDF, TIFF format	\$1,320.78	\$1,320.66	MWD	North County Times	1/8 page ad, weekdays and Sunday. Runs one week, off a week for a 6 week cycle. \$440.26 a week. Ad to cover watershed for Hodges Reservoir.	Daily for 3 weeks (6 weeks cycle).
	Due: July 31. 1/2 page b/w. email to: info@thesandiegonaturaguide.com. PDF, TIFF, EPS 300 dpi 4 3/8" x 3 9/16"	\$422.00	\$422.00	CWA	The Natural Guide	1/ 2 page ad, b/w display ad. Ad to cover all 3 watersheds.	One ad in bi-annual publication.
	Due June 1. Email: brianamariathomas@yahoo.com. 3 x 3 b/w, PDF format	\$351.00	\$468.00	CWA	East County Gazette	3" x 3" page ad, b/w @ \$6.50 per square inch, equals \$58.50 per week for 6 weeks. Ad to cover watersheds El Capitan and San Vicente reservoirs.	Weekly for 6 weeks.

Radio Public Service Announcement	Due May 23rd. Copy to Jamiejackson@clearchannel.com by May 23rd	\$4,000.00	\$4,000	MWD	Clear Channel: Star 94.1 and Channel 933 have strongest signals to reach Watershed sign locations	20 radio public service announcements once a for 20 days during Jeff and Jer. Ad to cover all 3 watersheds.	4 weeks: 5/28 - 6/24: 5:30 am - 10 am.
Cinemia Advertising	Creative assets due May 18th: to lisa.olsen@ncn.com	\$3,240.00	\$3,240.00	CWA	Mira Mesa	\$540 per week. Mira Mesa Edwards services the watershed of Hodges reservoir. Includes all 17 theatres, and lobby plasmas	Runs daily in cinemas. Six weeks total.
Cinemia Advertising	Creative assets due May 14th: to lisa.olsen@ncn.com	\$3,240.00	\$3,240.00	CWA	El Cajon	\$540 per week. Regal Cinema services both watersheds of El Capitan and San Vicente reservoirs. Includes all	Runs daily in cinemas. Six weeks total.
City Print Shop	Graphic costs						
<b>Media Services Total</b>		<b>\$19,505.63</b>	<b>\$16,860.66</b>	<b>\$18,000.00</b>			

City of San Diego Water Department, Operations Division							
Watershed Sign Program: Media In-Kind Donation Contacts							
Type of Media	Agency Name	Estimated Cost	Actual Cost	Paid	Contact Information	Description of services	Status
TV	KGTV				Don Wells 619-237-1010	Possible partnership with tv public service announcements	In review with agency
Internet	AAA of Southern California				<a href="mailto:frazier.patrice@aaa-calif.com">Patrice Frazer frazier.patrice@aaa-calif.com</a>	Possible partnership with banner display on website or article in Westways	in review with agency

City of San Diego Water Department, Operations Division							
Watershed Sign Program: Other Publicity Efforts							
Type of Publicity	Agency Name	Estimated Cost	Actual Cost	Paid	Contact Information	Description of services	Status
Online survey	City web team			City			<a href="http://www.sandiego.gov/water">www.sandiego.gov/water</a>
Program webpage	City web team			City			<a href="http://www.sandiego.gov/water">www.sandiego.gov/water</a>
TV bulletin slide	City TV - Rick Bollinger			City		TV bulletin slide	Running billboard slide
Elevator Posters	City Print Shop					Design elevator posters to be displayed at City Administration Building	Scheduled to be posted January 2008
Program Kiosk	Rueben H. Fleet Center - Paul Siboroski			City	619-685-5742	Program poster next to water cycle and think blue	Poster kiosk is up
E-newsletter	Stakeholder Outreach					A newsletter to keep stakeholders apprised on the progress of the Watershed Sign Program	Distributed Issue 2
Stakeholder Coordination	Stakeholder Outreach					Add program links to organization/agency webpage and obtain letters of support	Part of Phase 3
Website Feature	California Watershed Network - Mary Lee				marylee@surewest.net	Website feature on organization's webpage	Coordination in progress
Program Presentations	Program Presentations						As-needed
	San Diego Natural History Museum					Possible partnership opportunity	Part of Phase 3
Press Releases to the media and industry publications							TBD. Part of Phase 3
Promotional Items							TBD. Part of Phase 3
Unveiling of the Sign Event							TBD. Part of Phase 3
<b>Other Publicity Efforts Total</b>		<b>\$0.00</b>					



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# Watershed Billboards



Magnolia Avenue/Mission Gorge Road:  
Billboard Intersection Location



Magnolia Avenue/Mission Gorge Road:  
Billboard Close-up



Winter Gardens Boulevard/Woodside Avenue:  
Billboard Intersection Location



Winter Gardens Boulevard/Woodside Avenue:  
Billboard Close-up



**Look for  
these signs,  
and look out  
for our  
watersheds.**

**[www.sandiego.gov/water](http://www.sandiego.gov/water)**

# EAST COUNTY GAZETTE

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**SAN DIEGO  
RIVER  
WATERSHED**

**KEEP IT CLEAN**

Our  
drinking water.  
Our  
watersheds.  
Our  
responsibility.

It's a sign  
of the times -  
a sign for our  
watersheds.

Have you seen these signs along the highway? A watershed is the land that drains water into a stream, river, lake or reservoir that often supplies our drinking water. No matter where you are — at home, at work, or at play — you are in a watershed. Look for these signs, and look out for our watersheds.

[www.sandiego.gov/water](http://www.sandiego.gov/water)

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www.ncTIMES.com

THE ESCONDIDO

# NORTH COUNTY TIMES

NEWS FROM ESCONDIDO, VALLEY CENTER, SAN MARCOS, VISTA, POWAY, RANCHO BERNARDO, FALLEROOK AND ALL NORTH COUNTY



**Padres lose in extra innings**

San Diego scored four runs in the seventh inning to tie the game, but Paul Bournie hit a home run for Seattle in the top of the 11th for a 6-5 win in intermission play.

See Sports,  
Page C-1

**SATURDAY, JUNE 9, 2007**

VOL. 123, No. 160

AN EDITION OF THE NORTH COUNTY TIMES

35 CENTS (est. PER COPY)



It's a sign of the times—a sign for our watersheds. Have you seen these signs along the highway? A watershed is the land that drains water into a stream, river, lake or reservoir that often supplies our drinking water. No matter where you are — at home, at work, or at play — you are in a watershed. Look for these signs, and look out for our watersheds. [www.sandiego.gov/water](http://www.sandiego.gov/water)

Our drinking water. Our watersheds.  
Our responsibility.

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SAN DIEGO

Annual Party Guide

# FAMILY

FREE  
July 2007

Hidden  
**Summer  
Health  
Hazards**

Take the

San Dieg



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of the times—  
a sign for our  
watersheds.

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SAN DIEGO

Annual  
Party Guide

## FAMILY

FREE  
July 2007Hidden  
Summer  
Health  
HazardsTake the  
U.S. History

## Our Watersheds Are Our Responsibility

**T**he term *watershed* has yet to become a part of everyday vocabulary, but it soon will be. To help protect our watersheds, the City of San Diego Water Department recently launched a pilot Watershed Sign Program. A watershed is the specific land area where water drains into a river system or other body of water, and includes all river tributaries and reservoirs. These bodies of water are the source of our drinking water, as well as the areas where we enjoy recreational activities, such as swimming and boating.

The goal of this program is for the public to learn about the importance of San Diego's watersheds and encourage environmental stewardship of the watersheds by members of our community. New watershed signs have been placed along local freeways to inform motorists that they are entering a watershed where a drinking water reservoir is located. The signs' specific locations are: Interstate 8 near El Capitan Reservoir, state Route 67 near San Vicente Reservoir, and Interstate 15 near Hodges Reservoir.

By taking care of our watersheds, we are protecting the water quality of our drinking source water reservoirs.

In cooperation with state and regional agencies, the long-term goal is to expand this pilot program statewide for use by other interested water agencies and environmental organizations.

The message is simple: all life depends on water, and clean water depends on you. As an integral part of our water supply system and daily lives, the cleanliness of our watersheds is every citizen's responsibility. For more information, log on to [www.sandiego.gov/water](http://www.sandiego.gov/water).



San Diego

SAN DIEGO

# FAMILY

**Build a Better Tomorrow**

Discover San Diego's Interactive EcoCenter

**Give Your House a Face Lift**

**Backyard Camping 101**

**FREE**

June 2007



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WATERSHED  
KEEP IT CLEAN

It's a sign of the times—a sign for our watersheds.

Have you seen these signs along the highway? A watershed is the land that drains water into a stream, river, lake or reservoir that often supplies our drinking water. No matter where you are — at home, at work, or at play — you are in a watershed. Look for these signs, and look out for our watersheds. [www.sandiego.gov/water](http://www.sandiego.gov/water)

Our drinking water.  
Our watersheds.  
Our responsibility.

Funded by Metropolitan Water District and San Diego County Water Authority

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San Diego!



Our  
drinking water.  
Our  
watersheds.  
Our  
responsibility.

It's a sign  
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Look for these signs, and  
look out for our watersheds.

[www.sandiego.gov/water](http://www.sandiego.gov/water)



THE CITY OF SAN DIEGO

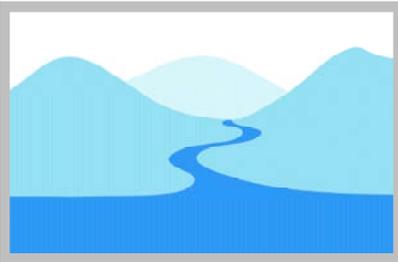




THE CITY OF SAN DIEGO

# E-Newsletters and Reports





# Our Drinking Water Our Watersheds Our Responsibility

ISSUE 1



El Capitan Reservoir



San Vicente Reservoir



Hodges Reservoir



Watershed Sign

## Watershed Sign Program (WSP)

Welcome to the first issue of the Watershed Sign Program e-Newsletter. This newsletter is sent to keep you up to date on our efforts to help the community learn about the importance of watersheds and encourage stewardship to protect our source waters.

### Where We've Been - Phase 1 Recap

From July 2005 to February 2006, we met with the State of California Department of Transportation's (Caltrans) subcommittee, California Traffic Control Device Committee 3 times to:

- Introduce the WSP
- Present sign design templates
- Gain approval for the pilot program

### Where We Are - Phase 2 Update

With our approval by Caltrans secured in Phase 1, we are now preparing to launch the pilot sign program by installing six signs throughout the San Diego region. The signs will be placed at:

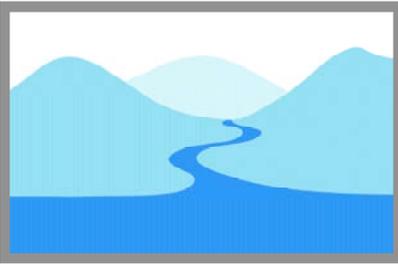
- Interstate 8 near El Capitan Reservoir
- State Route 67 near San Vicente Reservoir
- Interstate 15 near Hodges Reservoir

### Where We Are Going - Phase 2 Public Outreach Campaign

We are launching a public outreach and media campaign to supplement the Watershed Sign Program. This media campaign will introduce the new watershed signs, as well as provide a platform to inform the community about the importance of our watersheds and the protection of source waters. The media campaign will include items such as television and radio public service announcements, and print advertisements throughout the San Diego region. The key message is to communicate that the responsibility for protecting our water quality, and keeping it clean rests on the entire community. For more information or to find out ways to partner with this program please contact:

Destree Lazo at 619-232-2112 ext. 104 or visit:  
[www.sandiego.gov/water/operations/environment/watershedsigns.shtml](http://www.sandiego.gov/water/operations/environment/watershedsigns.shtml)





# Our Drinking Water Our Watersheds Our Responsibility

JULY 2007  
**Issue 2**

**Welcome...** to the second issue of the Watershed Sign Program E-news. This newsletter is designed to keep you apprised of our efforts to create opportunities for the community to learn about the importance of watersheds and encourage community stewardship over them. This issue includes ways to learn more about our program and ways to show your support.



See the sign on northbound I-15

**Signs Are Up In San Diego!** Next time you're out and about, check out the signs.

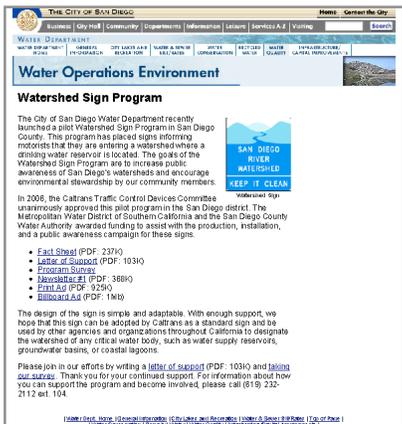
The signs are located in the following areas:

- 1) I-8 near Dunbar Lane and East Victoria Dr.
- 2) SR-67 near Scripps Poway Pkwy
- 3) I-15 near Auto Park Way and Camino Del Norte

**Check out these ads:** When you're out and about, you may also notice some publicity about the watershed sign program.

Ads are now at:

- San Diego Family Magazine (June and July issue)
- Mira Mesa Edwards Movie Theater
- Parkway Plaza Regal Cinemas



Visit the program website

**Show Support for Signs in Other Jurisdictions:** Write a letter

We are asking for letters of support to demonstrate to Caltrans a strong need for these signs be included in the Caltrans' family of standardized signs so that all districts throughout California can use these signs. New letters of support from Senator Christine Kehoe and the Resource Conservation District of Greater San Diego were submitted to Caltrans. Additionally, we have been garnering support and positive input from the western inland area of California.

Directions for writing and submitting a letter of support are available online at the program webpage mentioned below.

**Learn More:** Visit the Watershed Sign Program webpage

Check out the City of San Diego website at:

[www.sandiego.gov/water/operations](http://www.sandiego.gov/water/operations)

Click on Environment

Click on Watershed Sign Program

**Program Contact or to Schedule a Presentation:**

Destree Lazo, Program Coordinator (619) 232-2112 ext. 104



Schedule a presentation

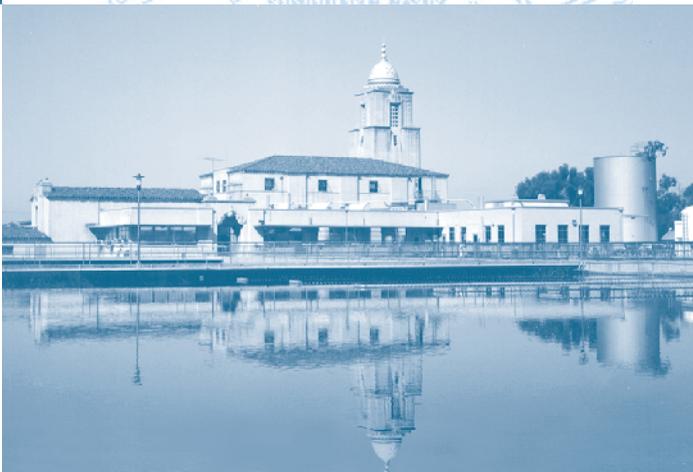


THE CITY OF SAN DIEGO





THE CITY OF SAN DIEGO



LAKE MURRAY PUMP  
STATION EFFLUENT  
VAULT

RAW WATER  
VAULT



FILTERS  
AREA 60



DISING FLOCCULATION  
CONDENSATION BASIN



# 2005 annual drinking water quality report

This report is being mailed to you as a requirement of the federal Safe Drinking Water Act.

NOTE: Industrial and commercial customers, including hospitals, medical centers, and health clinics, please forward this report to your Environmental Compliance Manager.

**San Diego's water is safe and healthy to drink for most people. For people with special health concerns, please see the information on page 6.**

This report contains important information about your drinking water. If the report is not available in your native language, speak with someone who understands it and can translate for you.

Este reporte contiene información importante sobre la calidad del agua en su comunidad. Copias en español de este reporte están disponibles si llama al (619) 527-3121. También encontrará este reporte por medio del internet en [www.sandiego.gov/water](http://www.sandiego.gov/water).

Ribootkani wuxuu xanbaar sanyahay warbixino muhiim ah oo ku saabsam biyaha aad cabtaan. Hadii aadan fahmeynin, Fadlan ribootka hala turjumo ama kala hadal ruux ku fahansiya.

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

此份有關你的食水報告,內有重要資料和訊息,請找他人為你翻譯及解釋清楚。

이 안내는 매우 중요합니다. 본인을 위해 번역인을 사용하십시오.

’هذا التقرير يحتوي على معلومات مهمة تتعلق بمياه الشرب (أو الشرب).  
يرجى التحويل، أو التكم مع شخصين يفهمون اللغة العربية.’

Chi tiết này thật quan trọng.  
Xin nhờ người dịch cho quý vị.



THE CITY OF SAN DIEGO

Water Department  
Public Information Office  
2797 Caminito Chollas, MS 43  
San Diego, CA 92105-5097

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CHEMICAL  
AREA 70

# Message from the Director

Dear Customers,

The City of San Diego Water Department is pleased to present you with the Annual Drinking Water Quality Report for 2005. The U.S. EPA and the California Department of Health Services (CDHS) require that all water agencies produce an annual report to inform customers about the quality of their drinking water. It is important to know that the production and mailing of this report is mandatory and efforts have been made to keep costs down.

On the following pages, you will find important information about the origin of your water, the composition of your water, and the steps we take to protect your health and safety with our water treatment process and water quality monitoring and testing.

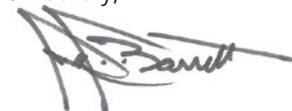
Last year, the Water Department's Water Quality Laboratory conducted more than 225,000 tests for 246 drinking water contaminants. We did not exceed any maximum contaminant compliance levels (MCLs) set by CDHS. This report contains a detailed summary of our water quality monitoring and testing.

Every year, we work hard to provide you with safe, reliable, cost-effective water and outstanding customer service in an environmentally sensitive manner. We are committed to continually improving our services and operations. On a management level, we have already taken action to find ways to maintain and improve services while minimizing expenses within our organization. For example, our Water Operations Division is in its second year of implementing Bid To Goal (BTG), a performance-based program to help us maximize our resources and productivity.

In this report, you will read about how we continue to improve our water systems and water quality through our Capital Improvements Program (CIP). The report highlights several completed CIP projects that have significantly improved our water system and discusses areas where we need to continue to make improvements to meet future water quality regulations. It also addresses our recycled water program and our ongoing efforts to protect the environment through watershed and source water protection, water conservation, and storm water pollution prevention.

Our top priority is providing quality water to all of our customers. I invite you to read on and learn more about our daily work to fulfill this commitment. If you have any questions about this report, or water quality in the City of San Diego, please contact our Public Information Office at (619) 527-3121, or visit us on the web at [www.sandiego.gov/water](http://www.sandiego.gov/water).

Sincerely,



J.M. Barrett  
Director, City of San Diego Water Department



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## Our Mission

To provide San Diego with Safe, Reliable, Cost-Effective Water and Outstanding Customer Service in an Environmentally Sensitive Manner.

## Our Vision

To be a "Best-in-Class" water utility for our customers.

# Our Water Supply



## Why is There Anything in My Water?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water from these sources travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases, radioactive material. Water can also pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source waters include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides, herbicides and fungicides, which may come from a variety of sources such as agriculture, urban runoff, and residential uses.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.

In order to ensure that tap water is safe to drink, the CDHS prescribes regulations which limit the amount of certain contaminants in the water provided by public water systems. The City of San Diego's Water Department treats water according to the CDHS regulations. The CDHS Food and Drug Branch regulations establish limits for contaminants in bottled water which must provide the same protection for public health as tap water. For more information log onto the CDHS website at: [www.dhs.ca.gov/fdb](http://www.dhs.ca.gov/fdb).

## Imported Water Assessment (Metropolitan)

In December 2002, Metropolitan Water District of Southern California (MWD) completed its source water assessment of its Colorado River and State Water Project supplies. Colorado River supplies are considered to be most vulnerable to contamination from recreation, urban/storm water runoff, increasing urbanization in the watershed and wastewater. State Water Project supplies are considered to be most vulnerable to contamination from urban/storm water runoff, wildlife, agriculture, recreation and wastewater. A copy of the assessment can be obtained by contacting MWD by phone at (213) 217-6850.

## Our Imported Water Supply and the Impact on Water Quality

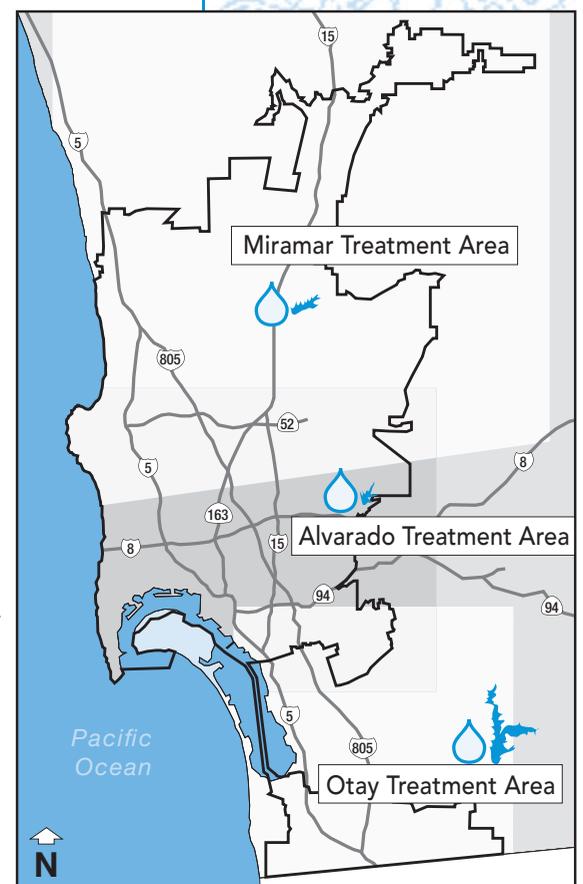
The City of San Diego imports an average of 85 percent of its water. This imported water is provided by the San Diego County Water Authority, which purchases water from the Metropolitan Water District of Southern California. Ultimately, our imported water is a blend of Colorado River water and State Water Project water (see maps). Throughout the year, the blend changes.

Several forces negatively impact the quality of water from the Colorado River and State Water Project. The Colorado River winds through thousands of miles of unprotected watershed containing towns, farms, old mining sites and industrial sites. For example, the Kerr-McGee Chemical Plant in Henderson, Nevada is undergoing cleanup efforts, but continues to be a source of perchlorate in the Colorado River. The Colorado River also flows past uranium mine tailing piles in Moab, Utah.

Water from the State Water Project is also subject to potential contaminants such as pesticides and herbicides. This water source also has a higher organic carbon and bromide level than the Colorado River water. As organic carbon and bromide levels increase, the potential for creating higher levels of disinfection by-products exists. (The disinfectants used to treat water can react with naturally occurring materials in the water to form unintended by-products which may pose health risks).

The City continually alters its treatment process to adjust for changing water supplies.

The City of San Diego continuously monitors the quality of our water to ensure all drinking water quality standards are met.



Your water comes from three municipal water treatment plants (Alvarado, Miramar, and Otay) and MWD's Skinner Plant in Hemet, CA. The City maintains nine reservoirs and purchases imported water from the San Diego County Water Authority. Water from the Colorado River Aqueduct and the State Water Project, as well as some local runoff, constitute the source waters for these plants.



# Capital Improvements Program

## Projects for Today and Tomorrow

The Water Department's Capital Improvements Program (CIP) plans, designs and builds projects to maintain and improve the drinking water treatment and delivery system and the distribution system for recycled water. Since the CIP's inception nine years ago, more than 50 projects have been successfully completed. In addition, 90 miles of cast iron water delivery mains (some of which were over 100 years old and well beyond their useful lifespan) have been replaced. Currently, there are four CIP projects in construction and 17 future projects being designed.

Although maintenance, replacement and improvements have been ongoing in the Water Department for many decades, the CIP was organized in 1997 to help better address critical water infrastructure needs and meet new state and federal water quality standards.

Capital improvement projects are expensive and require long-term financing. Since 1998, the City has issued bonds to finance Water Department projects. The City Council approved a series of water rate increases to support the bond financing. In December 2004, the City curtailed the issuance of most new construction contracts due to the City's inability to obtain bond financing. Capital construction projects scheduled to begin after December 2005 were rescheduled based on available financing. Sufficient funding is available to complete the water projects under construction through fiscal year 2006 and to provide for ongoing and essential projects in fiscal year 2007. The Water Department will continue to explore new and alternative financing options to minimize the impacts of the delays to the capital improvement program.

## Expanding the Drinking and Recycled Water Systems

Providing San Diegans with a safe and reliable water supply requires on-going, well-planned and prioritized construction work. Examples include improving and expanding the City's three drinking water treatment plants, as well as water transmission pipelines. Also, the Water Department is replacing old cast iron water mains and upgrading water pumping stations and drinking water reservoirs (tanks).

The Water Department continues to enhance water reliability by expanding the drinking and recycled water delivery systems. Recent improvements to the drinking

water system include the La Jolla/Pacific Beach Water Main Replacement, South San Diego Pipeline No. 2, and the Otay 2<sup>nd</sup> Pipeline Alta View Replacement.

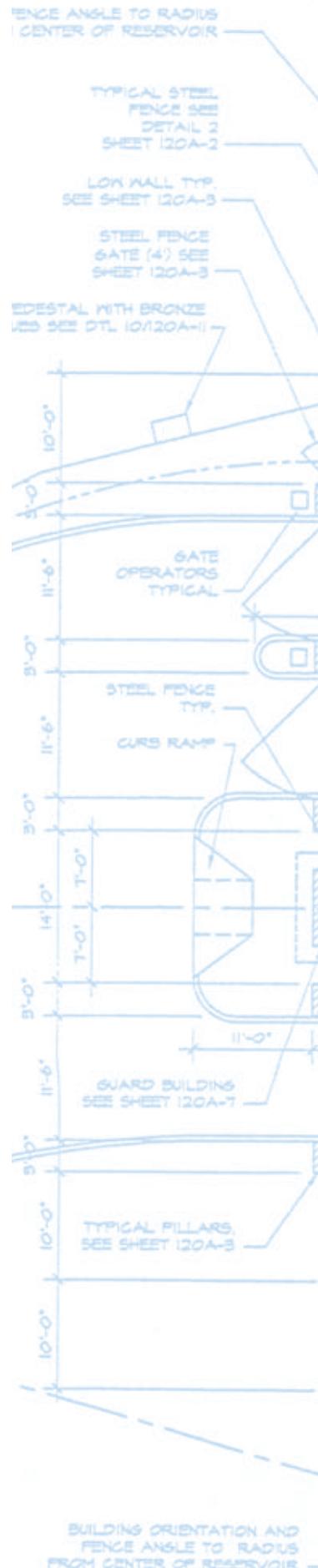
Several miles of recycled water mains have been built in the northern part of the city to deliver recycled water to customers from the North City Water Reclamation facility. The recycled water system is kept completely separate from the drinking water system. Recently completed recycled water projects include the Black Mountain Road Reclaimed Pipeline, Canyonside Reclaimed Water Pump Station and the Black Mountain Reclaimed Water Storage Tank. Using recycled water helps reduce San Diego's reliance on imported water by maximizing the use of our local water resources.

Work on the City's three water treatment plants are large-scale projects. More than \$200 million has been spent on these projects since the inception of the Capital Improvements Program.

An additional \$250 million is planned for work at the three treatment plants in the next six years, assuming financing is available.

## Alvarado Water Treatment Plant

The Alvarado Water Treatment Plant began operations in 1951 to treat newly available water from the Colorado River. It currently treats 120 million gallons per day (MGD) of drinking water. Located adjacent to Lake Murray, the plant has served as the "heart" of the City's drinking water system for more than 50 years and was designated an American Water Landmark in 2002 by the American Water Works Association. The current construction project is multi-phased and will increase the plant capacity to 200 MGD by 2011.

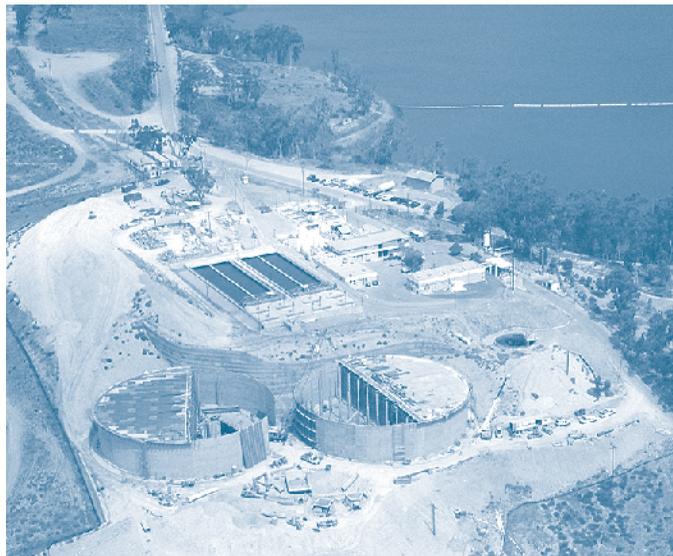


# Capital Improvements Program

The Earl Thomas Reservoir Replacement project was completed last year. Now operational, it is the world's largest pre-stressed concrete reservoir with a storage capacity of 35 million gallons. The \$32 million Earl Thomas Reservoir project involved demolishing a 50-year old reinforced-concrete reservoir. The new reservoir stores water after it has been treated at the plant. The San Diego International Chapter of the American Concrete Institute selected the reservoir to receive the "Water Resources" award. The reservoir will help the City meet new, stricter water quality regulations and improve long-term water system reliability.

## Miramar Water Treatment Plant

Since 1962, the Miramar Water Treatment Plant has provided drinking water to residents in northern San Diego region. The plant is located in the Scripps Ranch community, adjacent to the Miramar Reservoir. The plant is also undergoing a significant upgrade and expansion. When complete, the water treatment capacity of this plant will increase from 140 to 215 MGD.



## Otay Water Treatment Plant

The Otay Water Treatment plant began treating water in 1914. It currently produces 34 million gallons of drinking water per day for customers in the southern part of San Diego.

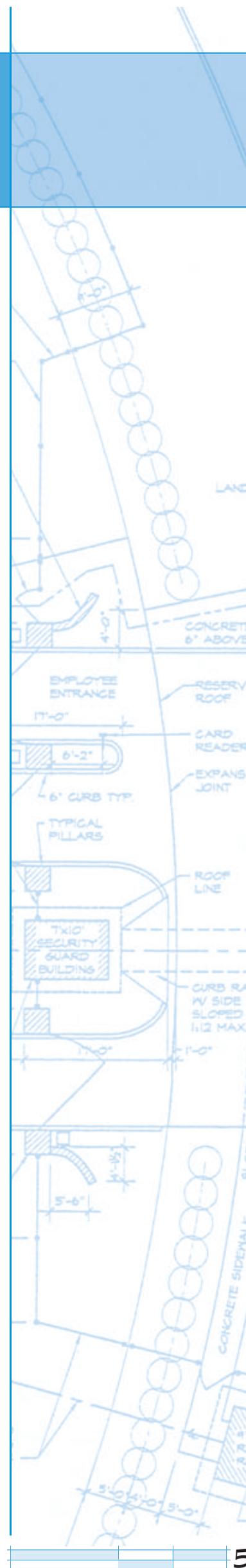
The \$17.9 million Otay Water Treatment Plant Expansion Project included the recent construction of a pair of 7 million gallon treated water storage reservoirs, (clearwells) to comply with state and federal water quality regulations. The clearwells, made of pre-stressed concrete, provide more operational efficiency and flexibility for maintenance. Installing the clearwells required excavating 87,000 cubic yards of dirt and constructing a 60-foot retaining wall. The San Diego section of the American Society of Civil Engineers honored the Otay Water Treatment Plant Expansion Project with an "Award of Excellence." This work was part of a multi-phased improvement project for the treatment plant.

The Capital Improvements Program will continue to work on improving and constructing the water treatment and delivery systems to meet the needs of current and future San Diegans. For more information on current and planned projects, visit [www.sandiego.gov/water/cip](http://www.sandiego.gov/water/cip) or call (619) 533-4679.



The Miramar Treatment Plant Upgrade and Expansion Project began in 2002 and is a multi-phase project designed to maximize current water production, meet future water demands, and comply with federal drinking water regulations. The San Diego section of the American Society of Civil Engineers recognized the Miramar Early Start Improvements Phase II as "Outstanding Civil Engineering Project" of the year.

The Miramar Early Start Improvements Phase II project involved constructing new pipelines as well as improvements outside the premises of the plant. This work needed to be done in advance of the next phases of the upgrade and expansion project. The \$17 million project was completed in February 2005. The subsequent phases of the project will continue through 2010, pending secured financing.

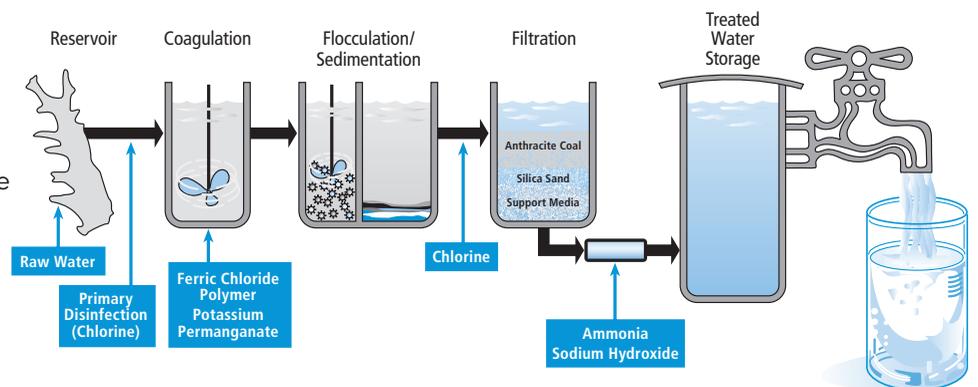


# Our Water Treatment Process

San Diego uses a conventional water treatment process similar to many other large water utilities around the nation. The process produces safe drinking water by removing and inactivating potentially harmful substances and organisms.

Raw water is treated using a multi-barrier approach to ensure our water meets federal and state drinking water quality regulations. Each treatment barrier provides an additional step to give added safety to the drinking water. The barriers include coagulation, flocculation/sedimentation, filtration, and disinfection. The coagulation process uses ferric chloride and organic polymer to neutralize particles in the water to allow them to combine. Flocculation is the process in which the neutralized particles combine to form larger clumps of particles. These larger clumps of particles are then allowed to settle out of the water in the sedimentation process. Any remaining particles are then removed through the filtration process. Chlorine is added to the water as the primary disinfectant to prevent illness due to water-borne pathogens. The final barrier is the addition of ammonia to the water to react with chlorine and form chloramines. Chloramines are used to maintain a residual disinfectant throughout the water distribution system to ensure water quality to the consumer's tap.

Also, as part of the water treatment process, potassium permanganate and chlorine are used to remove taste and odor compounds, and sodium hydroxide to adjust the pH making the water non-corrosive and to protect the pipes, plumbing fixtures and appliances from corrosion (rust).



## Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people, such as people with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk. These people should seek advice about drinking water from their health care providers. US EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and *Giardia* and other microbial contaminants are available from the US EPA's Safe Drinking Water Hotline (800) 426-4791. During calendar year 2005, the City of San Diego analyzed all of our source waters for *Cryptosporidium* and *Giardia*. We detected no *Giardia* cysts or *Cryptosporidium* oocysts in any of our source water monthly samples.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants.

## How do I Read the Tables?

The tables on the following pages list contaminants which: 1) have associated Primary Maximum Contaminant Levels (MCLs) that are regulated and 2) were detected by the City of San Diego's Water Quality Laboratory. Contaminants were detected at or above the California Department of Health Services (CDHS) Detection Limits for Purposes of Reporting (DLRs) during the calendar year 2005. The presence of these contaminants in the drinking water does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the US EPA's Safe Drinking Water Hotline (800) 426-4791 or by visiting the EPA's website at [www.epa.gov/safewater/hfacts.html](http://www.epa.gov/safewater/hfacts.html). California action levels are available on the CDHS website [www.dhs.ca.gov/ps/ddwem/index.htm](http://www.dhs.ca.gov/ps/ddwem/index.htm). Unless otherwise noted, the data presented in these tables are from testing done January 1 through December 31, 2005.

**NOTE:** The CDHS requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

**Table 1** lists all the regulated contaminants with Primary MCLs that the City of San Diego's Water Quality Laboratory detected in the drinking water at or above the CDHS DLRs.

**Table 2** is a listing of regulated contaminants with Secondary MCLs that were detected at or above the CDHS DLR for each analyte.

**Table 3** is a listing of detected unregulated contaminants that were detected at or above the CDHS DLR for each analyte. Unregulated contaminant monitoring helps the EPA and the CDHS to determine where certain contaminants occur and whether the contaminants need to be regulated.

**Table 4** is a listing of disinfection residuals and disinfection by-products that were detected.

# Glossary of Terms

## Important Health Effects Language

The following information is provided on the contaminants that are listed in Tables 1 through 4. None of these contaminants exceed state and federal MCL limits.

## Detected Contaminants

**BARIUM:** Some people who drink water containing barium in excess of the MCL over many years may experience an increase in blood pressure. (see Table 1)

**BORON:** Some men who drink water containing boron in excess of the notification level over many years may experience reproductive effects. This information is based on animal studies. (see Table 3)

**CHLORAMINES:** Some people who use water containing chloramines well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chloramines well in excess of the MRDL could experience stomach discomfort or anemia. (see Table 4)

**CHLORIDE:** Runoff/leaching from natural deposits; seawater influence. (see Table 2)

**COLOR:** Naturally-occurring organic materials. (see Table 2)

**COPPER:** Copper is an essential nutrient, but some people who drink water containing copper in excess of the notification level over a relatively short amount of time may experience gastrointestinal distress. Some people who drink water containing copper in excess of the notification level over many years may suffer liver or kidney damage. People with Wilson's Disease should consult with their personal doctor. (see Table 1)

**TOTAL COLIFORM BACTERIA:** Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present. (see Table 1)

**FLUORIDE:** Some people who drink water containing fluoride in excess of the federal MCL of 4 mg/L over many years may get bone disease, including pain and tenderness of the bones. Children who drink water containing fluoride in excess of the state MCL of 2 mg/L may get mottled teeth. Currently, all of the fluoride in our drinking water occurs naturally due to erosion. The City of San Diego does not add fluoride to its drinking water. (see Table 1)

**GROSS ALPHA PARTICLE ACTIVITY:** Certain materials are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer. The City of San Diego is required to analyze for radioactive contaminants every four years. (see Table 1)

**GROSS BETA PARTICLE ACTIVITY:** Certain materials are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer. The City of San Diego is required to analyze for radioactive contaminants every four years. (see Table 1)

**HALOACETIC ACIDS:** Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. (see Table 4)

**HARDNESS:** The sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally-occurring. (see Table 1)

**LEAD:** Infants and children who drink water containing lead in excess of the notification level may experience delays in their physical or mental development. Children may show slight deficits in attention span and learning abilities. Adults who drink this water over many years may develop kidney problems or high blood pressure. The City of San Diego's service lines do not contain lead and our testing reflects that. If you reside in an older home, lead solder may have been used in the pipes, which could affect the lead content in your drinking water. Visit the American Water Works Association website at [www.awwa.org](http://www.awwa.org) for information on research studies. (see Table 1)

**NICKEL:** Some people who drink water containing nickel in excess of the MCL over many years may experience liver and heart effects. (see Table 1)

**NITRATE:** Infants below the age of six months who drink water containing nitrate in excess of the MCL may quickly become seriously ill and, if untreated, may die because high nitrate levels can interfere with the capacity of the infant's blood to carry oxygen. Symptoms include shortness of breath and the blueness of the skin.

High nitrate levels may also affect the oxygen-carrying ability of blood of pregnant women. (see Table 1)

**ODOR:** Naturally-occurring organic materials. (see Table 2)

**RADIUM 226/228:** Some people who drink water containing radium 226/228 in excess of the MCL over many years may have an increased risk of getting cancer. (see Table 1)

**SPECIFIC CONDUCTANCE:** Substances that form ions when in water; seawater influence. (see Table 2)

**SODIUM:** Salt present in the water and is generally naturally-occurring. (see Table 1)

**SULFATE:** Runoff/leaching from natural deposits; industrial wastes. (see Table 2)

**TOTAL DISSOLVED SOLIDS:** Runoff/leaching from natural deposits. (see Table 2)

**TOTAL ORGANIC CARBON (TOC):** TOC has no health effects. However, TOC provides a medium for the formation of disinfection by-products. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAA5). Drinking water containing these by-products in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of cancer. (see Table 4)

**TOTAL TRIHALOMETHANES (TTHMS):** Compliance with the MCL regulation for TTHMs are based on the running annual average of samples collected over the entire year. An individual sample greater than 80 µg/L does not constitute a violation of the MCL. Some people who use water containing TTHMs in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer. (see Table 4)

**TURBIDITY:** Turbidity is the cloudiness of the water. Turbidity has no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches. (see Table 1)

**URANIUM:** Some people who drink water containing uranium in excess of the MCL over many years may have kidney problems or an increased risk of getting cancer. The City of San Diego is required to analyze for radioactive contaminants every four years. (see Table 1)

## Measurement Terms

**CORROSIVITY:** The corrosivity of a sample is measured by the Langlier Stability Index. A positive index, indicating non-corrosivity, was maintained at all plant effluents.

**CSD MDL:** City of San Diego Water Quality Laboratory Method Detection Limit. Lowest quantifiable concentration of a measured analyte detectable by the Laboratory.

**MAXIMUM CONTAMINANT LEVEL (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically or technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

**MAXIMUM CONTAMINANT LEVEL GOAL (MCLG):** The level of a contaminant in drinking water below, which there is no known or expected risk to health. MCLGs are set by the EPA.

**MAXIMUM RESIDUAL DISINFECTANT LEVEL (MRDL):** The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

**MAXIMUM RESIDUAL DISINFECTANT LEVEL GOAL (MRDLG):** The level of a disinfectant added for water treatment below, which there is no known or expected risk to health. MRDLs are set by the EPA.

**NOTIFICATION LEVEL/Previously called ACTION LEVEL (NL/AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**PRIMARY DRINKING WATER STANDARDS (PDWS):** MCLs and MRDLs for contaminants that affect health along with their monitoring & reporting requirements and water treatment requirements.

**PUBLIC HEALTH GOAL (PHG):** The level of a contaminant in drinking water below, which there is no known or expected risk to health. PHGs are set by the California EPA.

**TREATMENT TECHNIQUE (TT):** A required process intended to reduce the level of a contaminant in drinking water.

# 2005 Water Quality Data

**TABLE 1 – DETECTED REGULATED CONTAMINANTS WITH MCLs**

Primary Standards (Mandatory Health Related Standards) – CHEMICAL CONTAMINANTS												
CONTAMINANT	UNITS	MCL	PHG (MCLG)	CDHS DLR	TREATMENT PLANT EFFLUENT CONCENTRATION						YEAR SAMPLED	TYPICAL SOURCE OF CONTAMINANTS
					ALVARADO		MIRAMAR		OTAY			
					AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE		
Fluoride	ppm	2.0	1.0	0.1	0.247	0.199 – 0.519	0.266	0.206 – 0.520	0.277	0.209 – 0.520	2005	Erosion of natural deposits
Nitrate	ppm	45 as Nitrate	45 as Nitrate	2	ND	ND – 4.39	ND	ND – 2.66	ND	ND – 3.71	2005	Runoff and leaching from fire damaged watershed; erosion of natural deposits;
Barium	ppm	1	n/a	0.1	ND	ND	ND	ND – 0.12	ND	ND	2005	Erosion of natural deposits
Nickel	ppb	100	12	10	ND	ND – 10.3	ND	ND	ND	ND	2005	Erosion of natural deposits

CONTAMINANT	UNITS	MCL	PHG (MCLG)	CDHS DLR	TREATMENT PLANT EFFLUENT CONCENTRATION						YEAR SAMPLED	TYPICAL SOURCE OF CONTAMINANTS
					ALVARADO		MIRAMAR		OTAY			
					AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE		
Gross Beta Particle Activity	pCi/L	50	0	4.0	ND	ND – 6.25	ND	ND – 6.55	ND	ND – 4.45	2002	Decay of natural and manmade deposits
Gross Alpha Particle Activity	pCi/L	15	0	3.0	3.32	2.86 – 3.82	4.01	3.08 – 5.1	3.40	2.84 – 3.9	2002	Erosion of natural deposits
Radium 226/228	pCi/L	5	0	1	ND	ND – 1.44	ND	ND – 1.72	ND	ND – 1.90	2002	Erosion of natural deposits
Uranium	pCi/L	20	0.43	2.0	3.40	2.55 – 4.51	3.42	3.31 – 3.71	3.58	2.49 – 4.89	2002	Erosion of natural deposits

**Primary Standards – MICROBIOLOGICAL IN THE DISTRIBUTION SYSTEM**

CONTAMINANT	UNITS	MCL	PHG (MCLG)	CDHS DLR	DISTRIBUTION SYSTEM		YEAR SAMPLED	TYPICAL SOURCE OF CONTAMINANTS
					AVERAGE	RANGE		
					Total Coliform Bacteria	/100		

**Sodium, Hardness, and Turbidity**

CONTAMINANT	UNITS	MCL	PHG (MCLG)	LEVEL FOUND	CSD MDL	TREATMENT PLANT EFFLUENT CONCENTRATION						YEAR SAMPLED	TYPICAL SOURCE OF CONTAMINANTS
						ALVARADO		MIRAMAR		OTAY			
						AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE		
Sodium	ppm	n/a	n/a	n/a	5	75.7	63.4 – 84.4	81.2	71.6 – 88.9	80.8	72.0 – 87.7	2005	Naturally present in the environment
Total Hardness	ppm	n/a	n/a	n/a	2	218	156 – 244	232	181 – 267	216	173 – 244	2005	Naturally present in the environment
Total Hardness	gr/Gal	n/a	n/a	n/a	0.117	15.2	10.9 – 17.1	16.2	12.7 – 18.7	15.1	12.1 – 17.1	2005	Naturally present in the environment
Turbidity	NTU	TT= 1NTU	n/a	1 NTU		% < 0.3 NTU		% < 0.3 NTU		% < 0.3 NTU		2005	Soil runoff
						100%	0.04 – 0.19	100%	0.06 – 0.16	100%	0.06 – 0.26		

**Primary Standards (Mandatory Health Related Standards) – AT THE TAP CONTAMINANTS – LEAD AND COPPER RULE**

CONTAMINANT	UNITS	NOTIF. LEVEL	PHG (MCLG)	CDHS DLR	At The Tap Sample Results			YEAR SAMPLED	TYPICAL SOURCE OF CONTAMINANTS
					90th PERCENTILE CONCENTRATION	NUMBER SAMPLING SITES	NUMBER EXCEEDING NL		
					Copper	ppm	NL = 1.3		
Lead	ppb	NL = 15	2	5	ND	52	1	2005	Internal corrosion of household plumbing systems

# 2005 Water Quality Data



**TABLE 2 – DETECTED REGULATED CONTAMINANTS WITH SECONDARY MCLs (SMCL)**

Secondary Standards - Are set to protect aesthetics of water (Taste and Odor)

CONTAMINANT	UNITS	SMCL	MCL	PHG (MCLG)	CSD MDL	TREATMENT PLANT EFFLUENT CONCENTRATION						YEAR SAMPLED	TYPICAL SOURCE OF CONTAMINANTS
						ALVARADO		MIRAMAR		OTAY			
						AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE		
Color	CU	15	n/a	n/a	1	2.4	ND – 4	1.5	ND – 3	2.4	ND – 8	2005	Naturally-occurring organic materials
Corrosivity	----	non-corrosive	n/a	n/a	----	0.68	0.13 – 1.37	0.38	-0.12 – 0.92	0.65	0.19 – .097	2005	Natural or industrially-influenced balance of hydrogen, carbon and oxygen in water. A positive index indicates that the water is non-corrosive
Odor - Threshold	OU	3	n/a	n/a	1	ND	ND – 1.4	ND	ND – 1	1	1 – 1.4	2005	Naturally-occurring organic materials
Total Dissolved Solids	ppm	1,000	n/a	n/a	10	470	379 – 533	510	430 – 595	499	397 – 532	2005	Runoff/leaching from natural deposits
Specific Conductance	µS/cm	1,600	n/a	n/a	n/a	909	684 – 1200	964	754 – 1100	938	758 – 1090	2005	Substances that form ions when in water; seawater influence
Chloride	ppm	500	n/a	n/a	0.5	86.1	77.2 – 95.3	91.5	86.7 – 97.6	97.1	88.7 – 108	2005	Runoff/leaching from natural deposits; seawater influence
Sulfate	ppm	500	n/a	n/a	0.5	134	81.9 – 175	166	111 – 213	139	88.9 – 179	2005	Runoff/leaching from natural deposits; seawater influence

**TABLE 3 – DETECTED UNREGULATED CONTAMINANTS**

UNREGULATED CONTAMINANTS REQUIRING MONITORING

CONTAMINANT	UNITS	NOTIFICATION LEVEL	CDHS DLR	TREATMENT PLANT EFFLUENT CONCENTRATION						YEAR SAMPLED
				ALVARADO		MIRAMAR		OTAY		
				AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	
Boron	ppb	1000	100	ND	ND – 139	123	110 – 137	ND	ND – 140	2005



**TABLE 4 – DISINFECTION BY-PRODUCTS, DISINFECTANT RESIDUAL AND DISINFECTION BY-PRODUCTS PRECURSORS**

Distribution System Results

CONTAMINANT	UNITS	MCL MRDL	MCLG MRDLG	CDHS DLR	TREATMENT PLANT EFFLUENT CONCENTRATION						YEAR SAMPLED	TYPICAL SOURCE OF CONTAMINANTS
					ALVARADO		MIRAMAR		OTAY			
					AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE		
Total Organic Carbon [TOC]	ppm	n/a	n/a	0.25	3.77	2.74 – 6.17	2.86	2.20 – 4.98	3.69	2.24 – 5.43	2005	Various natural and manmade sources
Disinfectant Residual [Chloramines]	ppm	4	4	0.1	DISTRIBUTION SYSTEM AVERAGE = 2.03				RANGE ** = 0.1 – 2.8		2005	Drinking water disinfectant added for treatment
Total Trihalomethanes [TTHMs]	ppb	80*	n/a	0.2	HIGHEST DISTRIBUTION SYSTEM RUNNING ANNUAL AVERAGE = 71.0				RANGE ** = 41.3 – 102		2005	By-product of drinking water chlorination
Haloacetic Acids [HAA5]	ppb	60*	n/a	0.5	HIGHEST DISTRIBUTION SYSTEM RUNNING ANNUAL AVERAGE = 31.2				RANGE ** = 15.0 – 51.6		2005	By-product of drinking water disinfection

Note \* = Total Trihalomethanes and HAA5 compliance is based on system wide Running Annual Average

Note\*\* = Ranges are based upon single sample results

## Abbreviations

**A:** Absent

**CDHS:** California Department of Health Services

**CSD MDL:** City of San Diego Water Quality Laboratory Method Detection Limit

**CU:** Color Units

**DLR:** Detection Limit for Reporting

**gr/Gal:** Grains per Gallon

**MCL:** Maximum Contaminant Level

**MCLG:** Maximum Contaminant Level Goal

**MDL:** Method Detection Limit

**n/a:** Not applicable

**ND:** Not detected

**NL:** Notification Level

**NTU:** Nephelometric Turbidity Units

**OU:** Odor Units

**P:** Present

**pCi/L:** picocuries per liter (a measure of radiation)

**PDWS:** Primary Drinking Water Standard

**PHG:** Public Health Goal

**ppb:** parts per billion or micrograms per liter (µg/L) – [1 ppb = 1,000 ppt]

**ppm:** parts per million or milligrams per liter (mg/L) – [1 ppm = 1,000 ppb]

**ppt:** parts per trillion or nanograms per liter (ng/L) – [1 ppt = 0.001 ppb]

**SMCL:** Secondary Maximum Contaminant Level

**TT:** A required treatment technique process intended to reduce the level of a contaminant in drinking water.

**Year Sampled:** This column is to record the last time a contaminant was analyzed.

**µg/l:** micrograms per liter (ppb)

**µmhos/cm:** measurement of conductivity

**µS/cm:** micro-siemens/cm

< Less than

> Greater than

# Source Waters & Reservoirs

## Reservoirs

The City of San Diego has nine drinking water reservoirs: Hodges, Sutherland, Miramar, Murray, San Vicente, El Capitan, Otay, Barrett, and Morena. These reservoirs capture local rainwater and runoff to supply up to 15 percent of the City's drinking water. The reservoirs are important components of the regional water supply system. However, the quality of water stored in these reservoirs can be negatively impacted by residential and commercial development and routine activities in the watershed areas that drain into them.

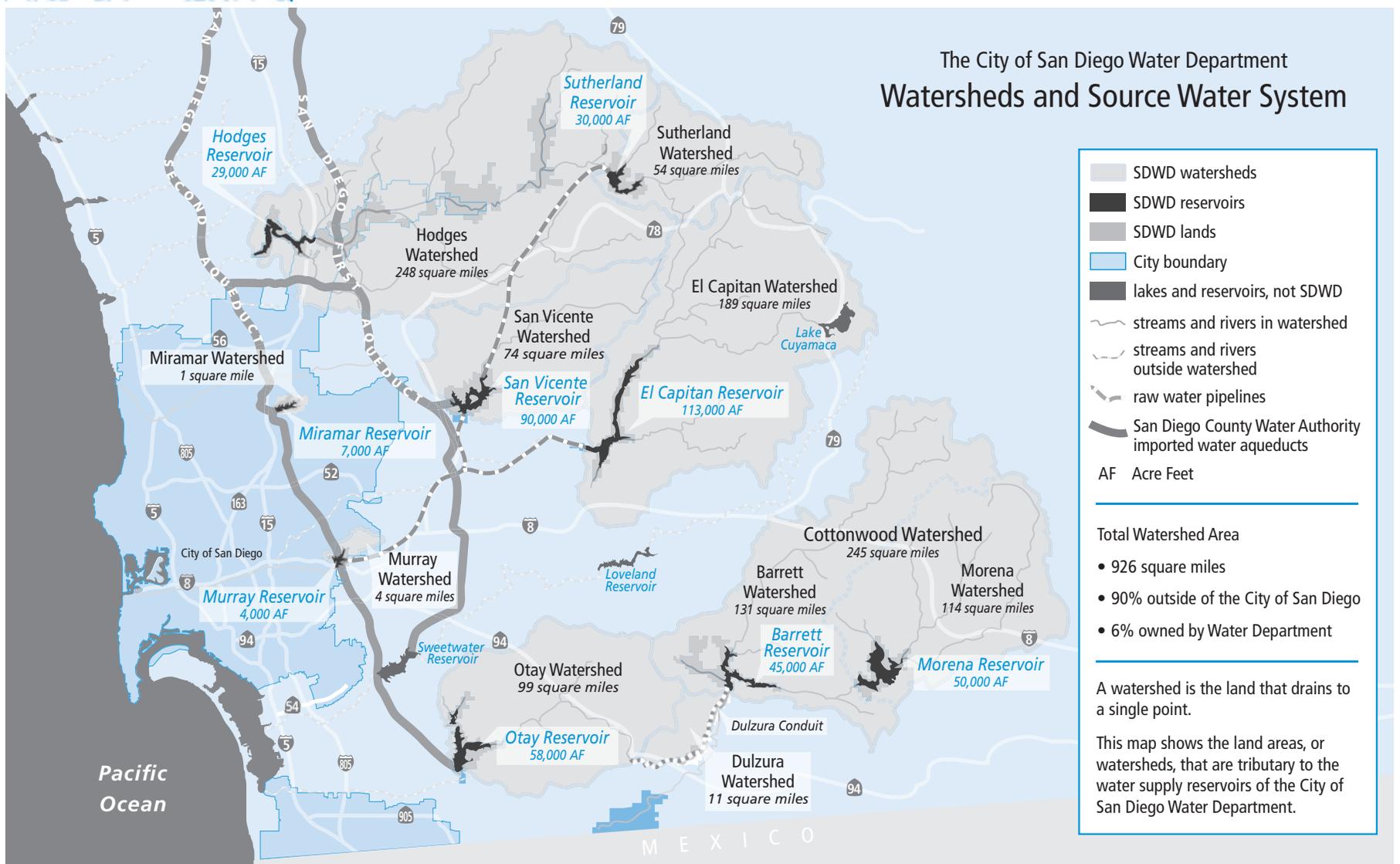
San Diego residents can do their part to protect watershed areas and our drinking water supply by properly disposing of pet waste, chemicals, and trash. You can be a part of the solution of stopping pollutants from running off into the reservoirs. Follow these simple Best Management Practices (BMPs):

- Sweep-up or wet-mop. Do not use a water hose to clean your driveways, sidewalks, and gutters.
- Litter is not harmless. Sweep-up trash and debris near your home before it gets washed into the storm drain.

- Pick-up after your pets. Animal wastes contribute pathogens to streams and reservoirs.
- Use pesticides and herbicides wisely. See page 15 of this report for more details.
- Don't feed the birds at local reservoirs. Nature provides what they need in abundance.

The City of San Diego is also doing its part to protect watershed areas. Read more about our efforts in the watershed newsletter located on pages 15 and 16 of this report.

For more information about the Storm Water Pollution Prevention Program or to report illegal discharges into the storm drain system, please call (619) 235-1000 or log onto [www.thinkbluesd.org](http://www.thinkbluesd.org). For information on water conservation, log onto [www.sandiego.gov/water/conservation](http://www.sandiego.gov/water/conservation).



# Source Waters & Reservoirs

## Drinking Water Source Assessment Program

Five of the City's nine reservoirs, plus one groundwater well, directly supply water to our three water treatment plants. Federal and state regulations require the preparation of source water assessments for each of these primary sources.

The Drinking Water Source Assessments for El Capitan, Miramar, Murray, Otay, and San Vicente Reservoirs were completed in June 2002. The assessment for El Cajon Well was completed in February 2003. An assessment of a second well, San Vicente Well #1 was completed in February 2005; however, the well is currently not in production. To receive copies of the assessments call (619) 527-3121 or send an email to [waterops@sandiego.gov](mailto:waterops@sandiego.gov).

## Watershed Sanitary Survey

In 2006, the City of San Diego updated its Watershed Sanitary Survey. This survey examines the existing and potential sources of contaminants in the watersheds draining into the City's nine reservoirs. The EPA requires that this survey be completed once every five years. The Executive Summary (in printed form) or a CD-ROM of the complete document can be obtained by calling (619) 527-3121. The Executive Summary can also be found on our website at [www.sandiego.gov/water](http://www.sandiego.gov/water). We encourage all San Diegans to take an active role in supporting pollution prevention programs in their communities and to learn more about protecting their local sources of water.

For a more comprehensive description of the source waters supplying our treatment plants, including the Watershed Sanitary Surveys, the Source Water Assessments, and the Source Water Protection Guidelines, log on to [www.sandiego.gov/water](http://www.sandiego.gov/water).

## Sharing the Responsibility of Water Security

Keeping our water supply safe and secure is a top priority for the City of San Diego. The Water Department operates with heightened awareness and security to safeguard our water sources, water treatment plants, and water distribution system.

The Water Department also relies on you, the community, to be our eyes and ears. Stay alert and report any suspicious activity around Water Department facilities. Your safety is a priority, so do not approach or confront strangers. Please report any suspicious activities immediately to your local law enforcement agency and contact the Water Department at (619) 515-3525. Thank you for being part of our security team.

## Important San Vicente Reservoir Closure Information

The San Diego County Water Authority is raising the height of San Vicente Dam. The dam raise project is part of the Water Authority's Emergency Storage Project, a system of reservoirs, interconnected pipelines and pumping stations designed to make water available to the San Diego region in the event of an interruption in imported water deliveries. To assure public safety during several years of construction, San Vicente Reservoir will be closed to boating, fishing, and all other water recreation for an extended period. The current timeline for reservoir closure is as follows, and may change as the project schedules are finalized:

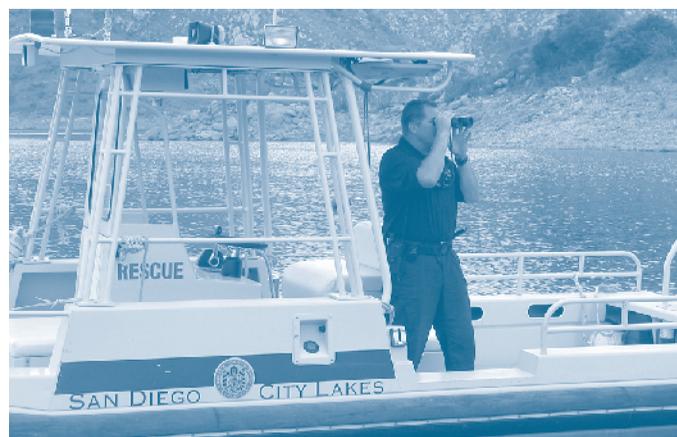
**Early 2007 – Late 2008:** Reservoir will be closed Monday through Friday (open on weekends and holidays) at some point during this time period. It is not anticipated that the reservoir will be closed during the summer months.

**2008 – 2013:** Complete closure during San Vicente Dam raise construction and concrete curing.

**2014 – 2017:** Reservoir reopens when water reaches new boat launch. Refilling the reservoir completely could take two to five years, or more, depending on rainfall and water demand and supply.

Currently, the San Diego County Water Authority imports up to 85 percent of the region's water supply. The pipelines that carry imported water travel hundreds of miles and cross several major fault lines on the way to San Diego County. An earthquake, drought, or other disaster could cut off the county's imported water supply for up to six months. Increasing the height of San Vicente Dam is an important investment to ensure that water is available to San Diego County in the event imported water deliveries are interrupted by an earthquake or catastrophic event.

For more information about San Vicente projects and the Emergency Storage Project, visit [www.sdcwa.org](http://www.sdcwa.org) or call the toll-free information line: (877) 426-2010.



# Our Commitment

## Recycled Water

The need for a local water supply is essential for a growing city like San Diego. Up to 85 percent of the City's total water supply is imported from sources hundreds of miles away. The City's other two sources of water are capturing local rainfall in the City's reservoirs and recycling municipal wastewater. Even with aggressive conservation efforts, the City of San Diego could need 25 percent more water in 2030. Increasing the use of recycled water provides San Diego with a larger local water supply and helps decrease the City's dependence on imported water.

## Recycled Water System

The North City Water Reclamation Plant has the capability to treat 30 million gallons of wastewater a day (MGD) and the South Bay Water Reclamation Plant can treat 15 MGD. These plants treat municipal wastewater to a level that is approved for irrigation, manufacturing, and other non-drinking uses.

Recycled water is delivered from a separate 79-mile pipeline system to 363 recycled water meters, including a connection to the City of Poway. While most customers use recycled water for irrigation; it is also used for industrial processes, toilet/urinal flushing, cooling towers in office buildings, dust suppression at construction sites, and landfills. All recycled water

above-ground fixtures and signage are easily identified by a purple color.

## Water Quality

A full spectrum of tests is performed on the recycled water by Metropolitan Wastewater's Environmental Monitoring and Technical Services Division. The requirements for this testing program are specified in the permits issued by the Regional Water Quality Control Board authorizing the distribution of recycled water. The testing program is designed by the regulatory agencies to ensure that the recycled water is safe for all intended uses by the recycled water customers.

## Water Reuse Study

At the direction of City Council in 2004, the Water Department implemented a study that researched ways to increase the use of recycled water from the City's two plants. The Study's six water reuse options are: expanding the existing system, creating storage reservoirs, adding it to streams or wetlands (or creating new wetlands), and recharging or improving groundwater basins.



Other options are to add recycled water to drinking water supplies in groundwater basins or to surface storage reservoirs that contain untreated drinking water supplies, a process called reservoir augmentation. Additional advanced treatment to recycled water is necessary before it can be used for these two purposes. The water must be blended and then processed through a drinking water treatment plant before it can be distributed to customers for drinking and other uses. Currently, no reclaimed water is added to reservoirs or groundwater aquifers. Graywater use for private residences and businesses was also analyzed as part of the study.

The Water Department informed and involved City residents about the Study through a speakers bureau, website, video, informal opinion surveys, and other activities. A community stakeholder group was created and through workshop participation, provided input to the Study team. Several possible strategies using the water reuse options were developed for the Study's report. The City Council will review the final report and provide direction to the Water Department.

For more information on recycled water or the Water Reuse Study, please visit [www.sandiego.com/water](http://www.sandiego.com/water) or call (619) 533-7556.



# Our Commitment

## Continually Improving the Quality of our Services

Every day, the Water Department's Operations Division is hard at work to provide you safe and reliable water with outstanding customer service in an environmentally sensitive manner. To continually improve the quality of our services and reduce environmental impacts, we combined a Bid to Goal (BTG) cost-savings program with an ISO 14001:2004 Environmental Management System (EMS) program. We are the first utility in the nation to integrate both programs together.



During 2005, our commitment to do business with an environmental conscience enabled us to reduce waste and recycle paper products, steel, brass, copper, and soil. In recognition of our service improvements, the Water Operations Division has already received three industry honors: 2004 AWWA Gold Award for Competitiveness, 17<sup>th</sup> Annual Savvy Awards Competition, Silver Circle Award, and the City's Environmental Services Department's 2006 Waste Reduction and Recycling Award. With the success of BTG in the Water Operations Division, the Water Department will also implement a similar program in its Customer Support Division. This Division is responsible for account and billing management, revenue recovery, water conservation and water meter maintenance activities.

## Drinking Water Fluoridation

The State of California requires that water agencies serving more than 10,000 customers fluoridate their drinking water supplies if outside funding is provided. At this time, the City has not received sufficient outside funding to pay for a fluoridation system that would cover our entire distribution area. However, we do report a small amount of fluoride in our water supply, which occurs naturally due to erosion.

Please note that Metropolitan Water District of Southern California (MWD – the largest wholesaler of San Diego's imported water) has elected to begin fluoridating their drinking water supplies beginning 2007. Because MWD provides treated water in addition to the water treated at the City's three water treatment plants, there will be areas throughout the City which will receive various blends of fluoridated water. For more information on anticipated blends, please call the Public Information Office at (619) 527-3121 or send an email to [waterops@sandiego.gov](mailto:waterops@sandiego.gov). For more information on MWD's fluoridation program, please call (213) 217-5709 or visit [www.mwdh2o.com](http://www.mwdh2o.com).

## What are Chloramines?

Chloramines are a type of disinfectant that the Water Department uses to prevent re-growth of potentially harmful bacteria in the water distribution system. Chloramines are a combined form of chlorine and ammonia. They are approved by the Environmental Protection Agency (EPA) as a disinfectant for drinking water, and have been used safely for years. Chloraminated water is safe to drink because the digestive process neutralizes the chloramines before they enter the bloodstream. Chloraminated water is also safe for all other daily uses, such as bathing and cooking. In addition, the treatment process that uses chloramines produces fewer disinfection by-products, such as trihalomethanes.

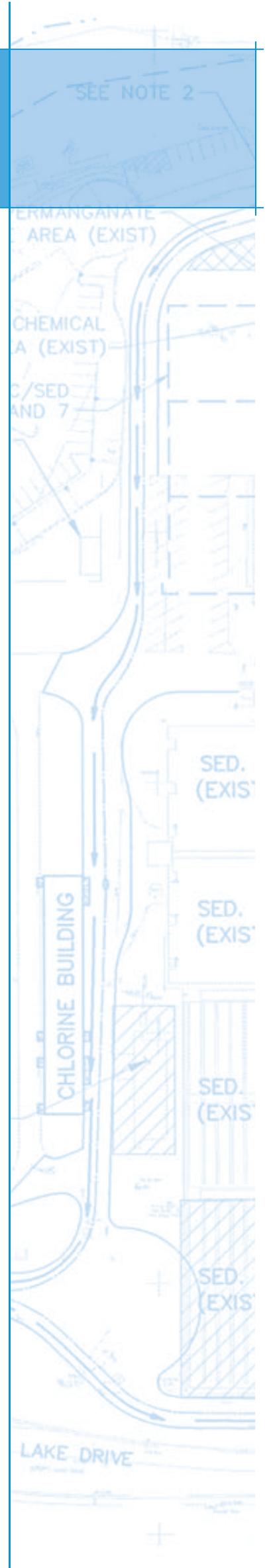
## Special Exceptions (Kidney Dialysis/Aquariums)

Customers who have unique water quality needs and who use specialized home treatments, such as kidney dialysis machines, should make the necessary adjustments to remove chloramines. Like chlorine, chloramines are toxic in dialysis water. Customers who have fish tanks in their homes should also take precautions to remove chloramines prior to adding water to tanks. Effective treatments include using granular-activated carbon filters or using chemicals specifically designed to remove chloramines. Allowing drinking water to stand, boiling water, and chemicals that remove chlorine, will not remove chloramines.



## Why Might My Water Taste or Smell funny?

Occasionally, water suppliers experience episodes of unpleasant tastes and odors in their water, often characterized as "musty" or "earthy." These taste and odor variations are caused by naturally occurring algae growth in the raw source waters. In San Diego, algae are occasionally found in the source water reservoirs and aqueducts that supply water to the City. These algae may seasonally produce trace amounts of taste and odor chemical compounds. The taste and odor compounds do not pose any health risks to the people using the water. The City of San Diego Water Department closely monitors our source waters for algae growth and, when possible, will switch to a different water source to avoid problems from unpleasant tastes and odors.



# Resources

## Landscape Watering Calculator

More than half of the water used by San Diegans goes toward landscape irrigation. Help conserve water by using the Landscape Watering Calculator. The calculator is a free, easy-to-use, web-based tool that helps you estimate the amount of water your landscape or garden needs. The calculator uses averages that adjust for weather, plants and soils in San Diego. For more information and to access the calculator, please visit [www.sandiego.gov/water](http://www.sandiego.gov/water).



## Speakers Bureau Program

Have a question? Want more information? Need a speaker for your organization? The Water Department has a Speakers Bureau available to give presentations in the community. We can speak to your business, professional, civic or social group on specific water topics and departmental functions. Our team of experts can address water quality and water treatment, water conservation, recycled water, distribution and delivery systems, and capital improvement projects. Speakers are also available in specific subject areas for high school, college and university classes. We can also tailor a presentation to fit your specific request. Utilize our employee resources to further your knowledge about water. Call our Speakers Bureau Office at (619) 533-6638 or e-mail [waterspeakers@sandiego.gov](mailto:waterspeakers@sandiego.gov).

## How Can I Get More Information About My Water?

The Public Utilities Advisory Commission (PUAC) holds monthly meetings (the 3<sup>rd</sup> Monday of each month) to discuss water issues facing the City of San Diego Water Department. The public is welcome to attend and give input. Simply call the PUAC's support line at (619) 236-6750 for information about meeting location, dates and times.

This report meets mandatory federal and state requirements for annual customer notification regarding water quality. It was produced and mailed to residences and businesses in the City of San Diego Water Department's service area at a cost of 25 cents per copy. The direct mailing of this report allows us to provide virtually all of our customers with information they should have about drinking water standards and quality in a cost efficient manner.

Annual Drinking Water Quality Report: Editor, Tedi Jackson

Printed on recycled newsprint.  
This information is available in alternative formats upon request.

## We Want to Hear From You!

This is a great opportunity to let us know about your experience with our services. If there are areas we could improve upon, we want to hear about it. Our customer surveys are typically left on your door when our crew completes a water-related service call. Additionally, surveys are also available online at: <http://www.sandiego.gov/water/operations/opssurvey.shtml>

We take pride in our work and aim to provide quality customer service in every aspect of our job. We are pleased to report that from the approximately 200 surveys sent in to date, 75% of our customers rated our service as "Excellent or Above Average."

We value your comments about our services and we want to keep up the good work for each and every one of our customers, so please feel free to give us feedback. Thanks for taking the time to send us your comments.

## Important Phone Numbers

General Information	(619) 515-3500
Emergency Hotline	(619) 515-3525
Water Quality Lab	(619) 668-3232
Capital Improvements Program	(619) 533-4679
Group Job Hotline	(858) 573-5081
Water Conservation	(619) 515-3500
City Lakes Fishing Line	(619) 465-3474
Speakers Bureau	(619) 533-6638
EPA's Drinking Water Hotline	(800) 426-4791
Storm Water Pollution Prevention	(619) 235-1000
Public Information Office	(619) 527-3121

## Important Web Links

City of San Diego Water Department	<a href="http://www.sandiego.gov/water">www.sandiego.gov/water</a>
California Department of Health Services (CDHS)	<a href="http://www.dhs.ca.gov">www.dhs.ca.gov</a>
California EPA	<a href="http://www.calepa.ca.gov">www.calepa.ca.gov</a>
EPA (Groundwater and Drinking Water)	<a href="http://www.epa.gov/safewater">www.epa.gov/safewater</a>
County of San Diego Dept. of Environmental Health	<a href="http://www.co.san-diego.ca.us/deh">www.co.san-diego.ca.us/deh</a>
San Diego County Water Authority	<a href="http://www.sdcwa.org">www.sdcwa.org</a>
Metropolitan Water District of Southern California	<a href="http://www.mwdh2o.com">www.mwdh2o.com</a>
Project Clean Water	<a href="http://www.projectcleanwater.org">www.projectcleanwater.org</a>
Think Blue	<a href="http://www.thinkbluesd.org">www.thinkbluesd.org</a>

# Our Drinking Water, Our Watersheds, Our Responsibility

Watershed Newsletter 2006

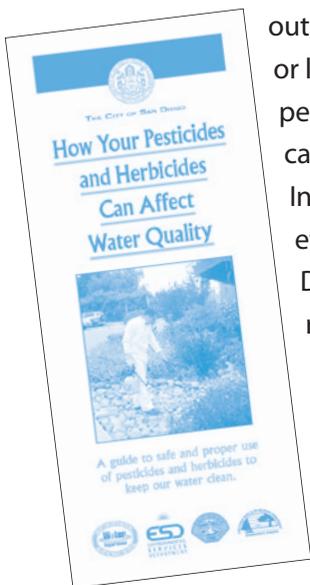
## Watersheds and Reservoirs

Watersheds and reservoirs are integral parts of our regional water supply system. A watershed is an area of land that drains local runoff (and everything collected in the runoff) into reservoirs. Reservoirs, more commonly known as lakes, capture local runoff and store imported water, and then supply this water to nearby water treatment plants. In this newsletter, we want to inform you about our efforts to protect water quality and also provide you with resources you can use.

## Protecting Water Quality

While it helps to keep bugs and weeds out of your garden or landscape, using pesticides and herbicides can affect water quality. In a collaborative effort between City Departments, a new resource is available for protecting water quality. The Water, Environmental Services, Fire-Rescue, and Park and Recreation Departments in coordination with the City's Storm Water Program created a guide about limiting contamination by keeping pesticides, herbicides, and irrigation runoff out of our waterways.

Get your brochure today at local community service centers, libraries, or online at [www.sandiego.gov/water/operations/environment](http://www.sandiego.gov/water/operations/environment).



## New Signs Ahead!

The City of San Diego Water Department is launching a "Pilot Watershed Boundary Sign Program" (WBSP) in San Diego County. The goals of WBSP are to increase public awareness of San Diego's watersheds and encourage environmental stewardship by our community members. This program will bring attention to motorists that they are entering a watershed where a drinking water reservoir is located.

In 2006, the CalTrans Traffic Control Devices Committee unanimously approved our pilot program and Metropolitan Water District of Southern California (MWD) awarded grant funding to assist with the production and installation of signs and to initiate a public awareness campaign.

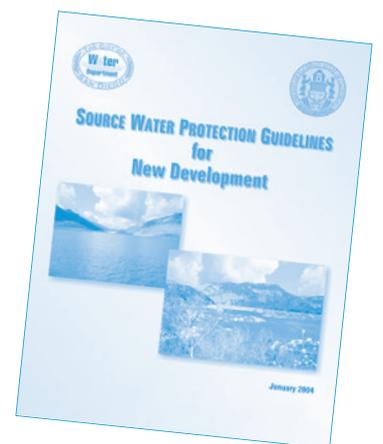
The sign design is simple enough to use for designated drinking water reservoirs, groundwater basins, and other environmentally sensitive areas near source waters. We are working to make this sign available to our numerous partners such as the California Watershed Network, San Diego River Park Foundation, MWD, and other water agencies and environmental organizations.

Thank you to everyone who supported our program efforts. For information about how you can become involved, please call (619) 527-3121.



## Right to the Source

Protecting our water supply is a tremendous challenge. Why? Much of our watershed lands are outside of the City's limits, therefore they are also outside of our jurisdictional sphere of authority for land use planning, zoning, and building codes. To assist other jurisdictions that control land use decisions in areas that affect water quality and watersheds, the Water Department established "Source Water Protection Guidelines for New Development Projects." The goal of the Guidelines is to help

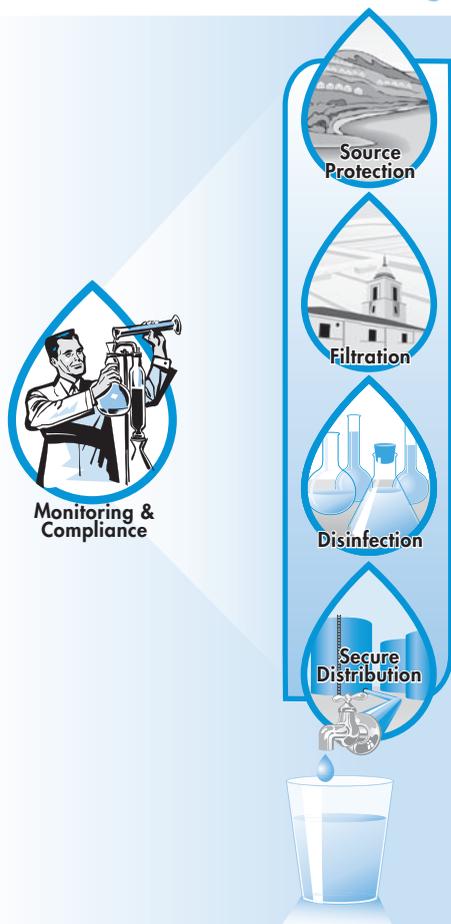


protect local source waters as new residential and commercial developments are designed, planned, and built in the watersheds.

The Guidelines establish water quality control measures that are specific to drinking water sources, for construction and new development, and also include recommendations for long-term maintenance of the control measures.

The Guidelines can be downloaded at [www.sandiego.gov/water](http://www.sandiego.gov/water), or you can receive a complimentary version on CD-ROM by calling 619-527-3121 or emailing a request to [waterops@sandiego.gov](mailto:waterops@sandiego.gov).

# Our Drinking Water, Our Watersheds, Our Responsibility



## Source to Tap

Protecting water sources provides healthy and safe drinking water for our communities. This graphic illustrates the multiple barriers to protect our water as it moves from source to tap. Each barrier helps protect drinking water from contamination.

At source protection, proper care ensures that trash and other pollutants do not contaminate the water that is stored at a reservoir. In filtration and disinfection, water is filtered and disinfected at treatment plants. When drinking water is ready for consumption, it flows into a secure distribution system for use. At each step, the Water Department continually monitors the water and ensures compliance with federal and state water quality regulations.

## Managing our Watersheds

The Water Department is actively involved in the development of watershed management plans in three key watersheds in San Diego County: San Diego River Watershed, Otay River Watershed, and San Dieguito Watershed. As much of these watershed areas fall outside of the City limits, successfully protecting them depends on cooperation with other jurisdictions. All of these watershed management plans can be viewed and downloaded at the Project Clean Water website, <http://www.projectcleanwater.org>.



## Get Involved!

We need your help protecting watersheds in the San Diego Region.

Please refer to these resources to learn more about watersheds and ways to participate in the protection of our water quality.

Organization	Activity Type	Phone Number	Website Address
California Department of Health Services	A, B, C, E, T	(916) 445-4171	<a href="http://www.dhs.ca.gov">www.dhs.ca.gov</a>
California Watershed Network	A, B, E, L, P, T	(916) 446-6440	<a href="http://www.watershednetwork.org">www.watershednetwork.org</a>
City of San Diego – Water Department	A, B, C, E, F, L, R, T	(619) 527-3121	<a href="http://www.sandiego.gov/water">www.sandiego.gov/water</a>
County of San Diego – Department of Environmental Health	A, B, C, E, T	(619) 338-2222	<a href="http://www.sdcountry.ca.gov/deh">www.sdcountry.ca.gov/deh</a>
County of San Diego – Project Clean Water	A, B, E, L, T	Refer to website	<a href="http://www.projectcleanwater.org">www.projectcleanwater.org</a>
I Love a Clean San Diego	A, B, C, E, S	(619) 291-0103	<a href="http://www.ilacsd.org">www.ilacsd.org</a>
Multiple Species Conservation Plan – County of San Diego	E, L	(619) 533-4543	<a href="http://www.sandiego.gov/planning/mscp">www.sandiego.gov/planning/mscp</a>
Otay Valley Regional Park	A, C, E, L	Refer to website	<a href="http://www.ovrp.org">www.ovrp.org</a>
Resource Conservation District – Greater San Diego County	A, B, E	(760) 745-2061 (619) 562-0096	<a href="http://www.rcdsandiego.org">www.rcdsandiego.org</a>
San Diego Audubon Society	A, C, E, L	(619) 682-7200	<a href="http://www.sandiegoaudubon.org">www.sandiegoaudubon.org</a>
San Diego Coastkeeper	A, C, E, T	(619) 758-7743	<a href="http://www.sdbaykeeper.org">www.sdbaykeeper.org</a>
San Diego Conservation Resource Network	A, C, E, L, P	Refer to website	<a href="http://www.sdcrn.org">www.sdcrn.org</a>
San Diego National Wildlife Refuge	A, C, E, F, L	(619) 691-1262	<a href="http://www.fws.gov/sandiegorefuges">www.fws.gov/sandiegorefuges</a>
San Diego Regional Water Quality Control Board	A, B, C, E, L	(858) 467-2952	<a href="http://www.waterboards.ca.gov/sandiego">www.waterboards.ca.gov/sandiego</a>
San Diego River Conservancy	B, C, E, L, P	Refer to website	<a href="http://www.sdrc.ca.gov">www.sdrc.ca.gov</a>
San Diego River Park Foundation	A, B, C, E, F, L, P, R, T	(619) 297-7380	<a href="http://www.sandiegoriver.org">www.sandiegoriver.org</a>
San Dieguito River Park	A, B, E, L, C	(858) 674-2270	<a href="http://www.sdrp.org">www.sdrp.org</a>
San Dieguito River Valley Conservancy	E, L	(858) 755-6956	<a href="http://www.sdrvc.org">www.sdrvc.org</a>
Southern California Wetlands Recovery Project	E, L	Refer to website	<a href="http://www.scwrp.org">www.scwrp.org</a>
The Center for Watershed Protection	A, E, P, L, T	(410) 461-8323	<a href="http://www.cwp.org">www.cwp.org</a>
The Trust for Public Land	A, E, L	(415) 495-4014	<a href="http://www.tpl.org">www.tpl.org</a>
The Watershed Management Council	A, E, T	Refer to website	<a href="http://www.watershed.org">www.watershed.org</a>
Think Blue	A, B, C, E, S	(888) THINKBLUE	<a href="http://www.thinkblue.org">www.thinkblue.org</a>
U.S. Environmental Protection Agency – Region 9: The Pacific Southwest	B, E, L, T	(866) EPA-WEST	<a href="http://www.epa.gov/region9/water">www.epa.gov/region9/water</a>
USDA Forest Service – Pacific Southwest Region	A, B, C, E, F, L, P, R	(707) 562-8737	<a href="http://www.fs.fed.us/r5">www.fs.fed.us/r5</a>

### Activity Type Key

A: Environmental activism	L: Land conservation and management
B: Business related protection and education activities	P: Planting trees and streambank repair/protection
C: Clean-up of trash and litter	R: Rowing, canoeing, and related boating activities
E: Environmental education	S: Storm drain marking
F: Fishing or fish recreation activities	T: Water quality testing



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# 2006 Annual Water Quality Report

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*San Diego's water is safe and healthy to drink for most people. People with special health concerns can learn more about important health information on page 6.*

This report is being mailed to you as a requirement of the federal Safe Drinking Water Act and covers the data for calendar year starting from January 1, 2006, to December 31, 2006.

**NOTE:** Industrial and commercial customers, including hospitals, medical centers, and health clinics, please forward this report to your Environmental Compliance Manager.



Water Department  
 Public Information Office  
 2797 Caminito Chollas, MS 43  
 San Diego, CA 92105-5097

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This report contains important information about your drinking water. If the report is not available in your native language, we encourage you to identify someone who understands it and can translate for you.

**Spanish**  
 Este reporte contiene información importante sobre la calidad del agua en su comunidad. Copias en español de este reporte están disponibles si llama al (619) 527-3121. También encontrará este reporte por medio del internet en [www.sandiego.gov/water](http://www.sandiego.gov/water).

**Af-Somali**  
 Ribootkani wuxuu xanbaar sanyahay warbixino muhiim ah oo ku saabsam biyaha aad cabtaan. Hadii aadan fahmeynin, Fadlan ribootka hala turjumo ama kala hadal ruux ku fahansiiya.

**Tagalog**  
 Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

**Chinese** 此份有關你的食水報告,內有重要資料和訊息,請找他人為你翻譯及解釋清楚。

**Korean** 이 안내는 매우 중요합니다. 본인을 위해 번역인을 사용하십시오.

**Arabic** "هذا التقرير يحتوي على معلومات مهمة تتعلق بمياه الشفة (أو الشرب).  
 نرجو التكرم بالترجمة أو التكم مع شخص يستطيع أن يفهم التقرير."

**Vietnamese** Chi tiết này thật quan trọng. Xin nhờ người dịch cho quý vị.

# Message from the Water Director

Dear Customers,

Our mission is to provide you with safe, reliable, cost-effective water and outstanding customer service in an environmentally sensitive manner. This report describes the ways we fulfill our mission and demonstrates our commitment to our customers.

The City of San Diego Water Department is pleased to present you with the 2006 Annual Drinking Water Quality Report. The U.S. Environmental Protection Agency (EPA) and the California Department of Health Services (CDHS) require that all water agencies produce an annual report to inform customers about the quality of their drinking water. This report fulfills that requirement and provides you with water quality data for the calendar year starting from January 1, 2006 to December 31, 2006.

**Commitment to water quality** – On the following pages, you will find important information about the origin of your water, the composition of your water, and the steps we take to protect your health and safety with our water treatment process and water quality monitoring and testing.

*Last year, the Water Department's Water Quality Laboratory conducted more than 223,000 tests for 295 potential drinking water contaminants. We did not exceed any maximum contaminant compliance levels (MCLs) set by CDHS. This report contains a detailed summary of our water quality monitoring and testing efforts.*

**Commitment to water quality during emergencies** – Additionally, you will read about how the Water Department stays prepared for emergencies and what you can do to better prepare your family for emergencies.

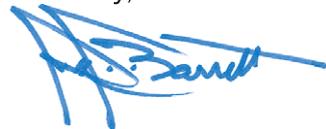
Last year, our crews successfully managed an unexpected situation. Read more on page 5 to see how our crews worked diligently to examine the quality of water for public health and safety when a single water sample that was taken after a water main break repair showed the presence of E. coli bacteria.

**Commitment to our customers and the environment** – This report highlights our capital improvements program, recycled water program, and our ongoing efforts to protect the environment through watershed and source water protection, water conservation, and storm water pollution prevention.

**Commitment to our future** – On February 26, 2007, the San Diego City Council approved a four-year series of rate increases for the City's water system. The first of these takes effect July 1, 2007 to upgrade our water storage, treatment and delivery systems. It will also allow us to comply with federal and state environmental and safe drinking water rules, including a State Department of Health Services Compliance Order.

We are committed to serving you with quality water and quality customer relations. If you have any questions about this report, or water quality in the City of San Diego, please contact our Public Information Office at (619) 527-3121, or visit us on the web at [www.sandiego.gov/water](http://www.sandiego.gov/water).

Sincerely,



J. M. Barrett  
Director, City of San Diego Water Department



## Our Mission

To provide San Diego with Safe, Reliable, Cost-Effective Water and Outstanding Customer Service in an Environmentally Sensitive Manner.

## Our Vision

To be a "Best-in-Class" water utility for our customers.

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## Why is There Anything in My Water?

The sources of San Diego drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water from these sources travels over the surface of the land or through the ground, it dissolves naturally occurring minerals. Water can also pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source waters include:

- Inorganic contaminants, such as salts and metals, that can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.
- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Pesticides, herbicides and fungicides, which may come from a variety of sources such as agriculture, urban runoff, and residential uses.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the California Department of Health Services (CDHS) prescribes regulations which limit the amount of certain contaminants in the water provided by public water systems. The City of San Diego's Water Department treats water according to the CDHS regulations. Regulations within the CDHS Food and Drug Branch also establish limits for contaminants in bottled water, which have the same protection for public health as tap water. For more information log onto the CDHS website at: [www.dhs.ca.gov/fdb](http://www.dhs.ca.gov/fdb).

## Imported Water Assessment

In December 2002, Metropolitan Water District of Southern California (MWD) completed its source water assessment of its Colorado River and State Water Project supplies. Colorado River supplies are considered to be most vulnerable to contamination from recreation, and urban/storm water runoff, as a result of increasing urbanization in the watershed. State Water Project supplies are considered to be most vulnerable to contamination from recreation and urban/storm water runoff, wildlife, agriculture, recreation and wastewater. A copy of the assessment can be obtained by contacting MWD by phone at (213) 217-6850.



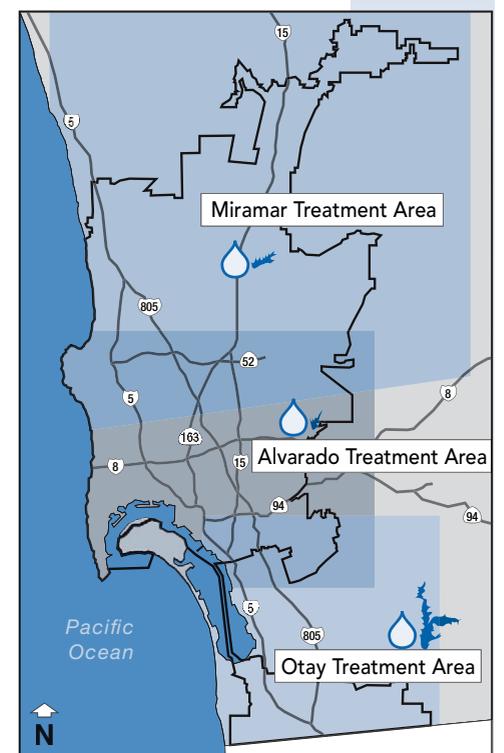
## Our Imported Water Supply and the Impact on Water Quality

The City of San Diego imports an average of 85% of its water. This imported water is provided by the San Diego County Water Authority, which purchases water from the Metropolitan Water District of Southern California. Ultimately, our imported water is a blend of Colorado River water and State Water Project water (see maps). Throughout the year, the blend changes.

Several forces impact the quality of water from the Colorado River and State Water Project. The Colorado River winds through thousands of miles of unprotected watershed containing towns, farms, old mining sites and industrial sites.

Water from the State Water Project is also subject to potential contaminants such as pesticides and herbicides. This water source also has a higher organic carbon and bromide level than the Colorado River water. As organic carbon and bromide levels increase, the potential for creating higher levels of disinfection by-products exists. (The disinfectants used to treat water can react with naturally occurring materials in the water to form unintended by-products which may pose health risks).

The City continually alters its treatment process to adjust for changing water supplies. Through these continued adjustments we ensure that all drinking water safe and quality standards are met.



# Emergency Preparedness



## Preparing for Emergencies

The City of San Diego's Water Department works hard to provide San Diego with safe and reliable water. The Water Department continually plans and prepares for emergency situations, and immediately responds to ensure the quality of water is maintained and service is maintained/restored to customers.

Some examples of emergencies that can affect water quality are an earthquake, fire, power failure, or possible water contamination. Below are several ways the Department proactively prepares for emergencies:

- Extensive monitoring of the entire treatment and distribution system is done routinely throughout the year. Thousands of water samples are taken to ensure that your water is safe.
- Staff training is conducted throughout the year on critical security and safety topics.



- Disaster drills are conducted to improve coordination efforts throughout the region. It is important to collaborate with the California Department of Health Services, law enforcement and fire-rescue agencies in order to improve multiple agency response to water emergencies.
- A water quality emergency notification plan has been put in place to keep customers informed in an emergency situation.
- Additional security measures are in place at all water treatment plants, reservoirs, and other local and remote water facilities.
- The City has adequate water storage available. If a water supply aqueduct were to break, there should be a sufficient amount of water that could be accessed. Please read more about the Emergency Storage Project on the next column to learn about how this particular project will provide additional water storage. The City operates under Council Policy 400-4, which requires water to be stored in the event of an emergency.
- Water emergency preparedness resources are available online. Visit [www.sandiego.gov/water/operations/leaks/emergencies.shtml](http://www.sandiego.gov/water/operations/leaks/emergencies.shtml) to learn more about how you and your family can become better prepared for an emergency.

## Emergency Storage Project: San Vicente Reservoir Closure Information

The San Diego County Water Authority is working on the Emergency Storage Project, creating a system of reservoirs, interconnected pipelines and pumping stations to improve the availability of water to the San Diego region in the event of an interruption in imported water deliveries.

Currently, the County Water Authority imports up to 85% of the region's water supply. The pipelines that carry imported water travel hundreds of miles and cross several major fault lines on the way to San Diego County. An earthquake, drought or other disaster could cut off the county's imported water supply for up to six months. As part of the project, the Water Authority is increasing the height of San Vicente Dam. This will greatly increase the amount of water locally available in an emergency.

To assure public safety during several years of construction, San Vicente Reservoir will limit boating, fishing, and all other water recreation for an extended period. The current timeline for reservoir closure is as follows, and may change as the project schedules are finalized.

	Thurs. & Fri.	Sat. & Sun.	Mon. - Wed.
Jan. - April 2007	<b>Closed</b>	<b>Open</b>	Always Closed
May - Sept. 2007	<b>Open</b>	<b>Open</b>	Always Closed
Oct. 2007 - Early 2008	<b>Closed</b>	<b>Open</b>	Always Closed
Mid 2008 - Construction & Refill	<b>Closed</b>	<b>Closed</b>	Always Closed

**Open** See City of San Diego recreation schedule to confirm what activities are allowed.

The reservoir will reopen to recreation sometime between 2014 and 2017, as soon as the water level reaches the new boat launch.

For more information about San Vicente projects and the Emergency Storage Project, call the toll-free information line: (877) 426-2010 and visit [www.sdcwa.org](http://www.sdcwa.org), click on Infrastructure and then click on Emergency Storage Project.



## Water Quality During an Unexpected Emergency

The Water Department's top priority is providing a reliable supply of safe drinking water for our customers. As part of our commitment, we take samples of the water at several points in our water distribution system to continually make sure the water is safe and meets all federal and state standards

### An Example of an Unexpected Event

On August 5, 2006, (following a water main break repair) a single test by the Water Department showed the presence of E. coli at a residence's hose bib (also known as a spigot or water faucet) on the outside of the house.

Acting out of concern for the health and safety for the entire community, the City of San Diego worked diligently with the California Department of Health Services (DHS) and the County of San Diego Department of Environmental Health to immediately examine the water. DHS issued a boil water order, which the Mayor announced for the neighborhoods along the Interstate 15 corridor north of Mercy Road and Scripps Poway Parkway. A boil water order notice is issued when there is a possibility that the drinking water has been contaminated. To avoid contaminated drinking water, this notice advises customers that either bottled water or water that has been boiled for at least one minute should be used for drinking and food preparation. Boiling water kills bacteria and other organisms in the water and assures that the water is safe to drink.

After testing additional water samples throughout the San Diego region, it was determined that the water was safe to drink throughout the distribution system and it was only that one test that had shown possible contamination. Testing results the next day confirmed that repeat sampling of the initial site and an additional 21 separate locations throughout the previously affected area were free of potentially harmful bacteria. Thus, the boil order was lifted. Subsequent tests also show that all water for this area continued to be safe. The likely cause of the initial positive test was contamination of the hose bib and not the water supply.

### Learn More about Being Prepared

Possible contamination of water can happen in a variety of unexpected ways. From broken and corroded pipes to natural disaster, the City, in collaboration with State and County officials, is ready to respond. We appreciate the community's cooperation and understanding as crews assess the situation and evaluate the quality of water.

For future reference during a disaster or an emergency, consult the U.S. EPA-recommended tips about how to disinfect your water, available on the Water Department's Emergency Preparedness webpage. To visit the webpage, log onto [www.sandiego.gov/water/operations](http://www.sandiego.gov/water/operations) and click on "Emergency Preparedness."

## How to Properly Store Water For Emergencies

The Water Department crews practice and are prepared for emergencies, and we want our customers to be prepared, too. Here are some tips on how to properly store water for emergencies.

- Store enough water to last for at least three days for everyone in your family and pets:
  - One gallon of water, per person, per day is adequate for general drinking purposes.
  - Three gallons of water, per person, per day is enough water for drinking, cooking and limited personal hygiene.
- Store water in thoroughly washed plastic, glass, fiberglass or enamel-lined metal containers. Plastic containers, such as soft drink bottles, are best. Never use a container that has held toxic substances.
- Store water containers in a cool, dark place.
- If you store tap water, date each container and replace the water at least once every six months.
- If you store commercially bottled "spring" or "drinking" water, keep the water in its original container and do not re-store a bottle once it has been opened. Date each bottle and replace water at least once a year.



For more information on emergency preparedness and other emergency response resources, visit [www.sandiego.gov/water](http://www.sandiego.gov/water). Click on "Water Operations," click on "Water Leaks and Emergencies," and choose "Emergency Preparedness."

The screenshot shows the City of San Diego Water Department website. The main navigation bar includes links for Business, City Hall, Community, Departments, Information, Leisure, Services A-Z, and Visiting. Below this is a search bar and a secondary navigation bar with categories like General Information, City Lakes and Recreation, Water & Sewer Bill/Rates, Water Conservation, Recycled Water, Water Quality, and Infrastructure/Capital Improvements. The page title is "Water Operations" and the sub-page title is "Emergency Preparedness". The content area includes a paragraph stating it's important to be prepared for any disaster or emergency situation, followed by a list of links: "Emergency Preparedness Checklist (PDF: 138K)", "How to Properly Store Water for Emergencies", and "How to Disinfect Your Water". There is also a section for "Other Emergency Response Resources" with links to the American Red Cross, City of San Diego Fire-Rescue Department, County of San Diego's Office of Emergency Services, City of San Diego Office of Homeland Security, City of San Diego Police Department, Federal Emergency Management Agency (FEMA), San Diego County Sheriff's Department, and State of California Office of Emergency Services (OES). A footer contains site map, privacy notice, and disclaimer links.

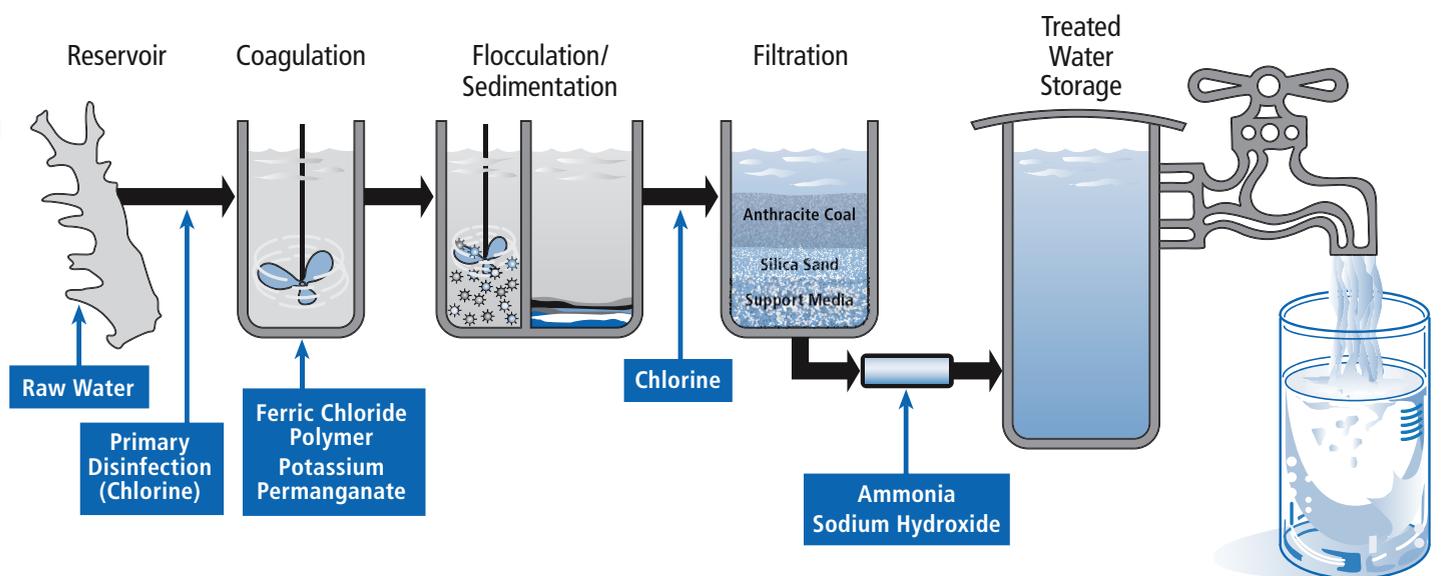
# Our Water Treatment Process



San Diego uses a water treatment process similar to many other large water utilities around the nation. The process produces safe drinking water by removing and inactivating potentially harmful substances and organisms.

Raw water is treated using a multi-barrier approach to ensure our water meets federal and state drinking water quality regulations. Each treatment barrier provides an additional step to give added safety to the drinking water. The barriers include coagulation, flocculation/sedimentation, filtration, and disinfection. The coagulation process uses ferric chloride and organic polymers to neutralize particles in the water to allow them to combine. Flocculation is the process in which the neutralized particles combine to form larger clumps of particles. These larger clumps of particles are then allowed to settle out of the water in the sedimentation process. Any remaining particles are then removed through the filtration process. Chlorine is added to the water as the primary disinfectant to prevent illness due to water-borne pathogens. The final barrier is the addition of ammonia to the water to react with chlorine and form chloramines. Chloramines are used to maintain a residual disinfectant throughout the water distribution system to ensure water quality to the consumer's tap.

Also, as part of the water treatment process, potassium permanganate and chlorine are used to remove taste and odor compounds, and sodium hydroxide is used to adjust the pH making the water non-corrosive and to protect the pipes, plumbing fixtures and appliances from corrosion (rust).



## Important Health Information

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people, such as people with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk. These people and/or their caregivers should seek advice about drinking water from their health care providers. The U.S. Environmental Protection Agency (EPA) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and *Giardia* and other microbial contaminants are available from the EPA's Safe Drinking Water Hotline at (800) 426-4791. During calendar year 2006, the City of San Diego analyzed all of our source waters for *Cryptosporidium* and *Giardia*. We detected no *Giardia* cysts or *Cryptosporidium* oocysts in any of our monthly source water samples.

## How Do I Read the Tables?

The tables on the following pages list contaminants which: 1) have associated Primary Maximum Contaminant Levels (MCLs) that are regulated and 2) were detected by the City of San Diego's Water Quality Laboratory. Contaminants were detected at or above the California Department of Health Services (CDHS) Detection Limits for Purposes of Reporting (DLRs) during the calendar year 2006. The presence of these contaminants in the drinking water does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the US EPA's Safe Drinking Water Hotline (800) 426-4791 or by visiting the EPA's website at [www.epa.gov/safewater/hfacts.html](http://www.epa.gov/safewater/hfacts.html). California action levels are available on the CDHS website at [www.dhs.ca.gov/ps/ddwem/index.htm](http://www.dhs.ca.gov/ps/ddwem/index.htm). Unless otherwise noted, the data presented in these tables are from testing done January 1 through December 31, 2006.

**NOTE:** The CDHS requires the City to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

**Table 1** lists all the regulated contaminants with Primary MCLs that the City of San Diego's Water Quality Laboratory detected in the drinking water at or above the CDHS DLRs.

**Table 2** is a listing of regulated contaminants with Secondary MCLs that were detected at or above the CDHS DLR for each analyte.

**Table 3** is a listing of detected unregulated contaminants that were detected at or above the CDHS DLR for each analyte. Unregulated contaminant monitoring helps the EPA and the CDHS to determine where certain contaminants occur and whether the contaminants need to be regulated.

**Table 4** is a listing of disinfection residuals and disinfection by-products that were detected in the treated water.

## Important Health Effects Language

The following information is provided on the contaminants that are listed in Tables 1 through 4. **None of these contaminants exceed state and federal MCL limits.**

## Detected Contaminants

**BARIUM:** Some people who drink water containing barium in excess of the MCL over many years may experience an increase in blood pressure. (see Table 1)

**BORON:** Some men who drink water containing boron in excess of the notification level over many years may experience reproductive effects. This information is based on animal studies. (see Table 3)

**CHLORAMINES:** Some people who use water containing chloramines well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chloramines well in excess of the MRDL could experience stomach discomfort or anemia. (see Table 4)

**CHLORIDE:** Runoff/leaching from natural deposits; seawater influence. (see Table 2)

**COLOR:** Naturally-occurring organic materials. (see Table 2)

**COPPER:** Copper is an essential nutrient, but some people who drink water containing copper in excess of the notification level over a relatively short amount of time may experience gastrointestinal distress. Some people who drink water containing copper in excess of the notification level over many years may suffer liver or kidney damage. People with Wilson's Disease should consult with their personal doctor. (see Table 1)

**TOTAL COLIFORM BACTERIA:** Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present. (see Table 1)

**FLUORIDE:** Some people who drink water containing fluoride in excess of the federal MCL of 4 mg/L over many years may get bone disease, including pain and tenderness of the bones. Children who drink water containing fluoride in excess of the state MCL of 2 mg/L may get mottled teeth. Currently, all of the fluoride in our drinking water occurs naturally due to erosion. The City of San Diego does not add fluoride to its drinking water. (see Table 1) Also, please see the "Drinking Water Fluoridation notice on page 13.

**GROSS BETA PARTICLE ACTIVITY:** Certain materials are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer. The City of San Diego is required to analyze for radioactive contaminants every four years. (see Table 1)

**HALOACETIC ACIDS:** Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. (see Table 4)

**HARDNESS:** The sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally-occurring. City water does not have significant unnaturally occurring cations. (see Table 1)

**LEAD:** Infants and children who drink water containing lead in excess of the notification level may experience delays in their physical or mental development. Children may show slight deficits in attention span and learning abilities. Adults who drink this water over many years may develop kidney problems or high blood pressure. The City of San Diego's service lines do not contain lead and our testing reflects that. If you reside in an older home, lead solder may have been used in the pipes, which could affect the lead content in your drinking water. Visit the American Water Works Association website at [www.awwa.org](http://www.awwa.org) for information on research studies. (see Table 1)

**NITRATE:** Infants below the age of six months who drink water containing nitrate in excess of the MCL may quickly become seriously ill and, if untreated, may die because high nitrate levels can interfere with the capacity of the infant's blood to carry oxygen. Symptoms include shortness of breath and the blueness of the skin. High nitrate levels may also affect the oxygen-carrying ability of blood of pregnant women. (see Table 1)

**ODOR:** Naturally-occurring organic materials. (see Table 2)

**SPECIFIC CONDUCTANCE:** Substances that form ions when in water; seawater influence. (see Table 2)

**SODIUM:** Salt present in the water and is generally naturally-occurring. (see Table 1)

**SULFATE:** Runoff/leaching from natural deposits; industrial wastes. (see Table 2)

**TOTAL DISSOLVED SOLIDS:** Runoff/leaching from natural deposits. (see Table 2)

**TOTAL ORGANIC CARBON (TOC):** TOC has no health effects. However, TOC provides a medium for the formation of disinfection by-products. These by-products include trihalomethanes (THMs) and haloacetic acids (HAA5). Drinking water containing these by-products in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of cancer. (see Table 4)

**TOTAL TRIHALOMETHANES (TTHMS):** Compliance with the MCL regulation for TTHMs are based on the running annual average of samples collected over the entire year. An individual sample greater than 80 µg/L does not constitute a violation of the MCL. Some people who use water containing TTHMs in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer. (see Table 4)

**TURBIDITY:** Turbidity is the cloudiness of the water. Turbidity has no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches. (see Table 1)

**URANIUM:** Some people who drink water containing uranium in excess of the MCL over many years may have kidney problems or an increased risk of getting cancer. The City of San Diego is required to analyze for radioactive contaminants every four years. (see Table 1)

## Measurement Terms

**ACTION LEVEL (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**CORROSIVITY:** The corrosivity of a sample is measured by the Langlier Stability Index. A positive index, indicating non-corrosivity, was maintained at all plant effluents.

**CSD MDL:** City of San Diego Water Quality Laboratory Method Detection Limit. Lowest quantifiable concentration of a measured analyte detectable by the Laboratory.

**MAXIMUM CONTAMINANT LEVEL (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically or technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

**MAXIMUM CONTAMINANT LEVEL GOAL (MCLG):** The level of a contaminant in drinking water below, which there is no known or expected risk to health. MCLGs are set by the EPA.

**MAXIMUM RESIDUAL DISINFECTANT LEVEL (MRDL):** The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

**MAXIMUM RESIDUAL DISINFECTANT LEVEL GOAL (MRDLG):** The level of a disinfectant added for water treatment below, which there is no known or expected risk to health. MRDLs are set by the EPA.

**NOTIFICATION LEVEL (NL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**PUBLIC HEALTH GOAL (PHG):** The level of a contaminant in drinking water below, which there is no known or expected risk to health. PHGs are set by the California EPA.

**TREATMENT TECHNIQUE (TT):** A required process intended to reduce the level of a contaminant in drinking water.

# 2006 Water Quality Data

**TABLE 1 – DETECTED REGULATED CONTAMINANTS WITH MCLs**

Primary Standards (Mandatory Health Related Standards) – CHEMICAL CONTAMINANTS												
CONTAMINANT	UNITS	MCL	PHG (MCLG)	CDHS DLR	TREATMENT PLANT EFFLUENT CONCENTRATION						YEAR SAMPLED	TYPICAL SOURCE OF CONTAMINANTS
					ALVARADO		MIRAMAR		OTAY			
					AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE		
Fluoride	ppm	2.0	1.0	0.1	0.212	.175 - .260	0.224	.180 - .268	0.241	.177 - .294	2006	Erosion of natural deposits
Nitrate	ppm	45 as Nitrate	45 as Nitrate	2	ND	ND	ND	ND - 2.01	ND	ND - 2.21	2006	Runoff and leaching from fire damaged watershed: erosion of natural deposits
Barium	ppm	1	2	0.1	ND	ND	ND	ND - 0.12	ND	ND	2006	Erosion of natural deposits

Primary Standards (Mandatory Health Related Standards) – RADIOACTIVE CONTAMINANTS												
CONTAMINANT	UNITS	MCL	PHG (MCLG)	CDHS DLR	TREATMENT PLANT EFFLUENT CONCENTRATION						YEAR SAMPLED	TYPICAL SOURCE OF CONTAMINANTS
					ALVARADO		MIRAMAR		OTAY			
					AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE		
Gross Beta Particle Activity	pCi/L	50	0	4	ND	ND - 4.75	ND	ND	ND	ND	2006	Decay of natural and manmade deposits
Uranium	pCi/L	20	0.43	1	ND	ND - 2.83	ND	ND - 2.85	ND	ND - 2.54	2006	Erosion of natural deposits

Primary Standards – MICROBIOLOGICAL IN THE DISTRIBUTION SYSTEM												
CONTAMINANT	UNITS	MCL	PHG (MCLG)	CDHS DLR	DISTRIBUTION SYSTEM						YEAR SAMPLED	TYPICAL SOURCE OF CONTAMINANTS
					AVERAGE			RANGE				
Total Coliform Bacteria	/100ml	< 5% Positive	0	A	0.12%			0 - 0.50%			2006	Human and animal waste

Sodium, Hardness, and Turbidity												
CONTAMINANT	UNITS	MCL	PHG (MCLG)	CSD MDL	TREATMENT PLANT EFFLUENT CONCENTRATION						YEAR SAMPLED	TYPICAL SOURCE OF CONTAMINANTS
					ALVARADO		MIRAMAR		OTAY			
					AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE		
Sodium	ppm	n/a	n/a	5	72.8	63.1 - 88.8	72.8	66.9 - 83.3	75.3	64.5 - 82.8	2006	Naturally present in the environment
Total Hardness	ppm	n/a	n/a	2	198	178 - 228	204	182 - 245	198	169 - 226	2006	Naturally present in the environment
Total Hardness	gr/Gal	n/a	n/a	0.12	11.6	10.4 - 13.3	11.9	10.6 - 14.3	11.6	9.9 - 13.2	2006	Naturally present in the environment
Turbidity	NTU	TT	n/a		% < 0.3 NTU		% < 0.3 NTU		% < 0.3 NTU		2006	Soil runoff
					100%	n/a	100%	n/a	100%	n/a		
		TT = 95% of samples <0.3 NTU										

Primary Standards (Mandatory Health Related Standards) – AT THE TAP CONTAMINANTS – LEAD AND COPPER RULE												
CONTAMINANT	UNITS	Action Limit	PHG (MCLG)	CDHS DLR	At the Tap Sample Results						YEAR SAMPLED	TYPICAL SOURCE OF CONTAMINANTS
					90th PERCENTILE CONCENTRATION	NUMBER						
						SAMPLING SITES	EXCEEDING AL					
Copper	ppm	AL = 1.3	0.17	0.050	0.536	52			0	2005	Internal corrosion of household plumbing systems	
Lead	ppb	AL = 15	2	5	ND	52			1	2005	Internal corrosion of household plumbing systems	

**TABLE 2 – DETECTED REGULATED CONTAMINANTS WITH SECONDARY MCLs (SMCL)**

Secondary Standards – Are set to protect aesthetics of water (Taste and Odor)													
CONTAMINANT	UNITS	SMCL	MCL (MCLG)	PHG	CSD MDL	TREATMENT PLANT EFFLUENT CONCENTRATION						YEAR SAMPLED	TYPICAL SOURCE OF CONTAMINANTS
						ALVARADO		MIRAMAR		OTAY			
						AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE		
Color	CU	15	n/a	n/a	1	1.45	ND - 6	ND	ND - 2	1.20	ND - 4	2006	Naturally-occurring organic materials
Corrosivity	----	non-corrosive	n/a	n/a	----	0.69	0.27 - 1.11	0.28	-0.09 - 0.7	0.60	0.34 - 0.88	2006	Natural or industrially-influenced balance of hydrogen, carbon and oxygen in water. A positive index indicates that the water is non-corrosive
Odor - Threshold	OU	3	n/a	n/a	1	ND	ND - 2	ND	ND - 1	ND	ND - 2	2006	Naturally-occurring organic materials
Total Dissolved Solids	ppm	1,000	n/a	n/a	10	442	354 - 518	465	397 - 552	443	361 - 485	2006	Runoff/leaching from natural deposits
Specific Conductance	µS/cm	1,600	n/a	n/a	n/a	815	706 - 966	823	710 - 951	816	712 - 972	2006	Substances that form ions when in water; seawater influence
Chloride	ppm	500	n/a	n/a	0.5	80.5	68.2 - 94.6	80.0	66.2 - 101	89.2	70 - 105	2006	Runoff/leaching from natural deposits; seawater influence
Sulfate	ppm	500	n/a	n/a	0.5	126	107 - 151	146	116 - 177	120	96 - 141	2006	Runoff/leaching from natural deposits; seawater influence

**TABLE 3 – DETECTED UNREGULATED CONTAMINANTS**

UNREGULATED CONTAMINANTS REQUIRING MONITORING										
CONTAMINANT	UNITS	NOTIFICATION LEVEL	CDHS DLR	TREATMENT PLANT EFFLUENT CONCENTRATION						YEAR SAMPLED
				ALVARADO		MIRAMAR		OTAY		
				AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	
Boron	ppb	1000	100	ND	ND - 145	ND	ND - 141	ND	ND - 147	2006



**TABLE 4 – DISINFECTION BY-PRODUCTS, DISINFECTANT RESIDUAL AND DISINFECTION BY-PRODUCTS PRECURSORS**

Distribution System Results												
CONTAMINANT	UNITS	MCL MRDL	MCLG MRDLG	CDHS DLR	TREATMENT PLANT EFFLUENT CONCENTRATION				YEAR SAMPLED	TYPICAL SOURCE OF CONTAMINANTS		
					ALVARADO		MIRAMAR				OTAY	
					AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE		
Total Organic Carbon [TOC]	ppm	n/a	n/a	0.3	3.34	1.98 - 4.44	2.48	2.00 - 2.86	3.75	1.08 - 6.57	2006	Various natural and manmade sources
Disinfectant Residual [Chloramines]	ppm	4	4	n/a	DISTRIBUTION SYSTEM AVERAGE = 2.15				RANGE ** = 0.1 - 2.8		2006	Drinking water disinfectant added for treatment
Total Trihalomethanes [TTHMs]	ppb	80*	n/a	n/a	HIGHEST DISTRIBUTION SYSTEM RUNNING ANNUAL AVERAGE = 68.2				RANGE ** = 33.2 - 125		2006	By-product of drinking water chlorination
Haloacetic acids [HAA5]	ppb	60*	n/a	n/a	HIGHEST DISTRIBUTION SYSTEM RUNNING ANNUAL AVERAGE = 31.4				RANGE ** = 10.3 - 53.4		2006	By-product of drinking water disinfection

Note \* = Total Trihalomethane and HAA5 compliance is based on system wide Running Annual Average

Note\*\* = Ranges are based upon single sample results

**Abbreviations**

**A:** Absent  
**AL:** Action Level  
**CDHS:** California Department of Health Services  
**CSD MDL:** City of San Diego Water Quality Laboratory Method Detection Limit  
**CU:** Color Units  
**DLR:** Detection Limit for Reporting  
**gr/Gal:** Grains per Gallon  
**MCL:** Maximum Contaminant Level  
**MCLG:** Maximum Contaminant Level Goal  
**MDL:** Method Detection Limit

**ml:** Milliliter  
**n/a:** Not applicable  
**ND:** Not detected  
**NL:** Notification Level  
**NTU:** Nephelometric Turbidity Units  
**OU:** Odor Units  
**pCi/L:** picocuries per liter (a measure of radiation)  
**PHG:** Public Health Goal  
**ppb:** parts per billion or micrograms per liter (µg/L) – [1 ppb = 1,000 ppt]  
**ppm:** parts per million or milligrams per liter (mg/L) – [1 ppm = 1,000 ppb]

**ppt:** parts per trillion or nanograms per liter (ng/L) – [1 ppt = 0.001 ppb]  
**SMCL:** Secondary Maximum Contaminant Level  
**TT:** A required treatment technique process intended to reduce the level of a contaminant in drinking water.  
**Year Sampled:** This column is to record the last time a contaminant was analyzed.  
**µS/cm:** micro-siemens/cm  
**<** Less than  
**>** Greater than

# Source Water & Reservoirs

## Reservoirs

The City of San Diego has nine drinking water reservoirs: Hodges, Sutherland, Miramar, Murray, San Vicente, El Capitan, Otay, Barrett, and Morena. These reservoirs capture local rainwater and runoff to supply up to 15% of the City's drinking water. The reservoirs are important components of the regional water supply system. However, the quality of water stored in these reservoirs can be negatively impacted by residential and commercial development and routine activities in the watershed areas that drain into them.

Residents can do their part to protect watershed areas and our drinking water supply by properly disposing of pet waste, chemicals, and trash. You can be a part of the solution of stopping pollutants from running off into the reservoirs. Follow these simple Best Management Practices (BMPs):

- Sweep-up or wet-mop. Do not use a water hose to clean your driveways, sidewalks, and gutters.
- Litter is not harmless. Sweep-up trash and debris near your home before it gets washed into the storm drain.
- Pick-up after your pets. Animal wastes contribute pathogens to streams and reservoirs.
- Use pesticides and herbicides wisely.
- Don't feed birds, squirrels and other wildlife at local reservoirs. This can contribute to overpopulation, leading to health hazards and other problems.

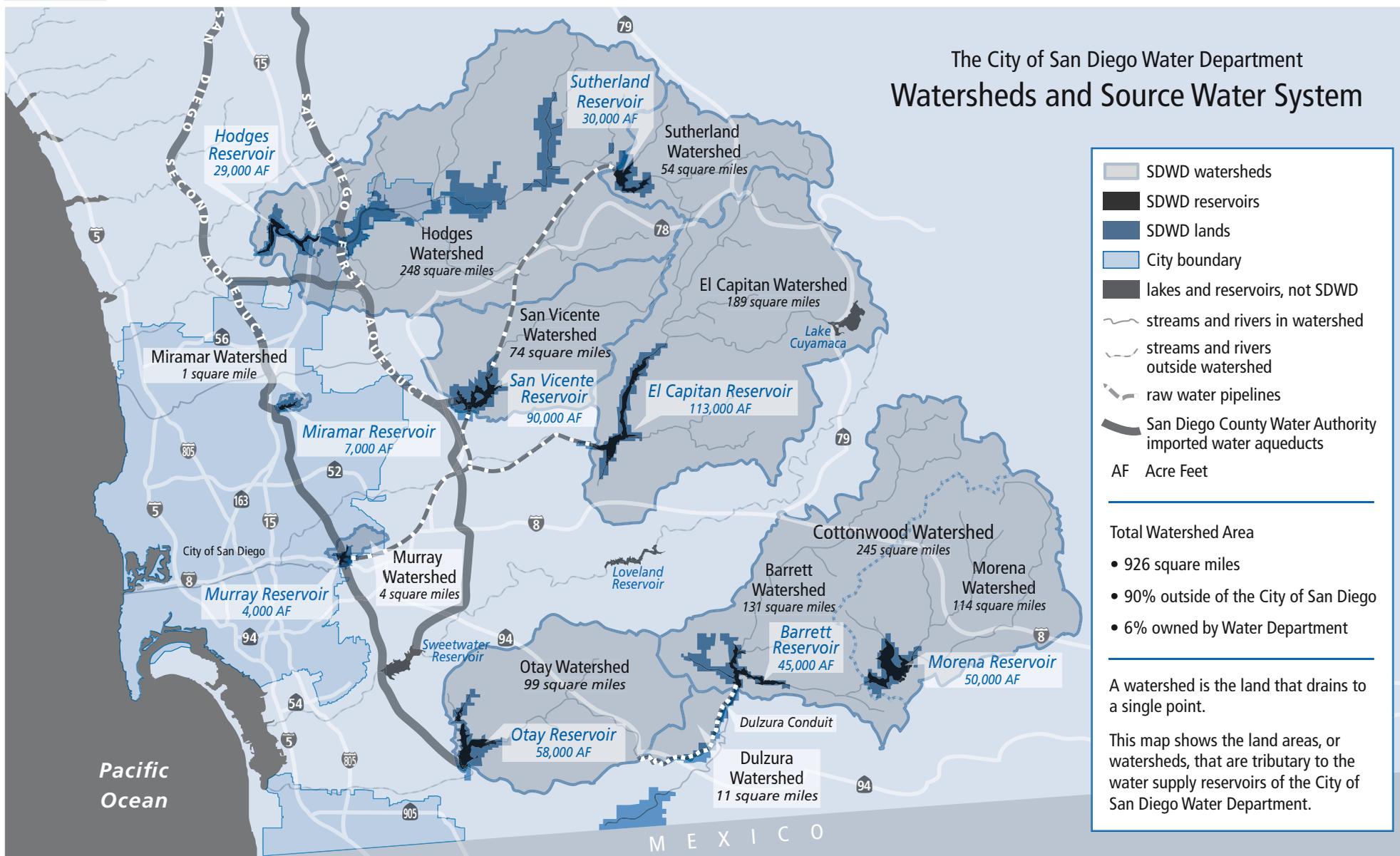
## Protecting Water Quality

The City of San Diego is also doing its part to protect watershed areas. Read more about our efforts in the watershed newsletter located on pages 15 and 16 of this report.

For more information about the Storm Water Pollution Prevention Program or to report illegal discharges into the storm drain system, please call (619) 235-1000 or log onto [www.thinkblue.org](http://www.thinkblue.org). For information on water conservation, log onto [www.sandiego.gov/water/conservation](http://www.sandiego.gov/water/conservation).



While it helps to keep bugs and weeds out of your garden or landscape, using pesticides and herbicides can negatively affect water quality. Using the resources of its Water, Environmental Services, Fire-Rescue, and Park and Recreation departments and Storm Water Pollution Prevention Program, the City now offers a guide about limiting contamination to keep pesticides, herbicides and irrigation runoff out of our waterways. You can receive a copy of the guide "How your Pesticides and Herbicides Can Affect Water Quality," at local community service centers and libraries, or online at [www.sandiego.gov/water/operations/environment/watersheds/shtml](http://www.sandiego.gov/water/operations/environment/watersheds/shtml).



## Quagga Mussel Update

Quagga mussels, which are related to the notorious zebra mussels that have overrun the Great Lakes and Mississippi River watershed, were found January 6, 2007, in Lake Mead, on the Colorado River. Subsequently, these mussels were also found at the Metropolitan Water District's intake pumping plant on Lake Havasu and the nearby Gene Wash Reservoir, at the beginning of the Metropolitan Water District's Colorado River Aqueduct.

The mussels can spread when water is transferred and when recreational vehicles, such as boats, travel from different water sources. These mussels multiply rapidly, clogging pipes and pumping machinery and can ruin the ecosystem of lakes and reservoirs. Importantly, once a reservoir's ecosystem is altered by Quagga mussels, excessive algae growth can occur which effects the taste and smell of the drinking water supply. Because of this, water treatment plants experience large increases in operating expenses when mussels are present in a reservoir.

Early detection can help contain and control the spread of these mussels in the water system. In February 2007, the Metropolitan Water District launched a comprehensive program to detect and control the invasion of Quagga mussels in the regional water system that provides southern California with half of its drinking water. The first phase of this program includes underwater and topside inspections of reservoirs and aqueducts, and the purchase of specialized sampling and laboratory equipment. These actions will establish the current distribution of Quagga mussels in Southern California and will lead to appropriate mitigation strategies. The City of San Diego Water Department has joined in the regional effort by employing its SCUBA divers and biologist to inspect San Diego's reservoirs. Thus far, no Quagga mussels have been found in the San Diego region.

Please help keep Quagga mussels out of our reservoirs and lakes. Thoroughly inspect and clean any boats or motors prior to launching in a reservoir or lake in the San Diego region, especially if the boat has previously been used outside the region. For more information on how to halt the spread of Quagga mussels, please visit the web site of the California Department of Boating and Waterways at: <http://www.dbw.ca.gov/PressRoom/2007/070202quagga.asp>.

## Integrated Regional Water Management Plan

The San Diego Integrated Regional Water Management (IRWM) Plan addresses water management issues within the San Diego region. This is a local water management approach preferred by the Governor, the State Department of Water Resources, and State Water Resources Control



Board. It is aimed at securing long-term water supply reliability within California by acknowledging the inter-connectivity of water supplies and the environment and then pursuing projects yielding multiple benefits for water supplies, water quality and natural resources.

San Diego's IRWM Plan is being prepared by a partnership of the City of San Diego Water Department, the San Diego County Water Authority, and the County of San Diego. The San Diego IRWM Plan builds upon the many individual and sub-regional management plans within San Diego County, with input from a comprehensive array of water management stakeholders. Scheduled to be completed by January 2008, the IRWM Plan will provide a mechanism for stakeholders to work together to effectively implement water management projects that achieve designated regional water management objectives. More information can be found at [www.projectcleanwater.org/html/sdirwm.html](http://www.projectcleanwater.org/html/sdirwm.html).

## Watershed Sanitary Survey

In 2006, the City of San Diego updated its Watershed Sanitary Survey. This survey examines the existing and potential sources of contaminants in the watersheds draining into the City's nine reservoirs. The U.S. Environmental Protection Agency requires that this survey be completed once every five years. The Executive Summary (in printed form) or a CD-ROM of the complete document can be obtained by calling (619) 527-3121. The entire document can also be found on the Water Department's web site at [www.sandiego.gov/water/operations/environment/wssurvey.shtml](http://www.sandiego.gov/water/operations/environment/wssurvey.shtml). We encourage all San Diegans to take an active role in supporting pollution prevention programs in their communities and to learn more about protecting their local sources of water. For a more comprehensive description of the source waters supplying our treatment plants, including the Watershed Sanitary Surveys, the Source Water Assessments and the Source Water Protection Guidelines, log on to [www.sandiego.gov/water](http://www.sandiego.gov/water).

## Right to the Source

Protecting our water supply is a tremendous challenge. Much of our watershed lands are outside the City limits, therefore they are also outside of our jurisdictional sphere of authority for land use planning, zoning and building codes. To assist these other jurisdictions, the Water Department established "Source Water Protection Guidelines for New Development." The goal of the Guidelines is to help protect local source waters as new residential and commercial developments are designed, planned and built in the watersheds.

These Guidelines for construction and new development establish water quality control measures that are specific to drinking water sources and also include recommendations for long-term maintenance of the control measures.

The Guidelines can be downloaded at [www.sandiego.gov/water](http://www.sandiego.gov/water), or you can receive a complimentary version on CD-ROM by calling (619) 527-3121 or emailing a request to [waterops@sandiego.gov](mailto:waterops@sandiego.gov).

# Our Commitment



## Continuing to Improve the Quality of Our Services

The Water Department's Operations and Customer Support Divisions are hard at work to provide you safe and reliable water with outstanding customer service in an environmentally sensitive manner. Under a Bid to Goal (BTG) cost-savings program, we are committed to improving the quality of our services, reducing environmental impacts and reducing costs to customers.



## Developing a Local Water Supply

Up to 85% of the City of San Diego's water supply is imported from sources hundreds of miles away. The City's other two sources of water are rainfall captured in reservoirs and the recycling of municipal wastewater. Even with aggressive conservation efforts, the City could need 25% more water by 2030. Increasing the use of recycled water and exploring the use of groundwater basins can provide San Diego with a larger local water supply that will help decrease our dependence on imported water.

### Recycled Water

To help meet current and future water demands, the City's water reclamation plants treat wastewater for use in irrigation, manufacturing and other non-drinking uses.

The North City Water Reclamation Plant can treat 30 million gallons of wastewater per day (MGD). Recycled water from this facility is delivered to 388 customer meters. This total includes a single service connection with the City of Poway that delivers recycled water to 195 additional meters. The South Bay Water Reclamation Plant can treat 15 MGD. Currently, recycled water is delivered from this facility to the International Boundary and Water Commission Wastewater Treatment Plant.



While most of our customers use recycled water for irrigation, some customers use it for toilet/urinal flushing, cooling towers in office buildings, and dust suppression at construction sites and landfills. Both reclamation plants produce enough recycled water to meet current customer demands. Customers use an average of 6.5 MGD during the summer months and 3.3 MGD during the winter months. The remaining water is treated to the secondary level and disposed of via an ocean outfall.

### Recycled Water Quality

A variety of tests are performed on recycled water by the City's Metropolitan Wastewater Department. The requirements for these tests are specified in permits issued by the Regional Water Quality Control Board authorizing the distribution of recycled water. The tests are designed by the regulatory agencies to insure that recycled water is safe for all intended uses. Moreover, we regularly test the amount of total dissolved salts (TDS) present in recycled water to ensure the TDS level remains well below 1000 parts per million, which is the appropriate level for landscape irrigation, agricultural and industrial uses.

For more information, visit [www.sandiego.gov/water](http://www.sandiego.gov/water), and then click on "Recycled Water," or call (619) 533-7556.



### Groundwater

Careful and effective evaluation and development of groundwater storage and recovery, and brackish groundwater desalination, are essential in carrying out the Long-Range Water Resources Plan approved by the City Council on December 9, 2002. The goals cited in the Long-Range Plan for 2010 are 20,000 acre-feet per year for groundwater storage and 10,000 acre-feet per year for groundwater development.

The Water Department seeks to protect and develop the City's interest in groundwater basins while maximizing water yield, storage and joint-use capabilities. The development of groundwater basins will provide storage of local and imported water to increase water availability while reducing the City's dependence on imported water.

The City is currently involved in various planning studies for the regional groundwater basins to better understand their potential before investing in full scale groundwater desalination and joint-use projects.

For more information about groundwater and the City's groundwater storage and recovery efforts, call (619) 533-5306.

## Capital Improvements Program

Established in July 1998, the Water Department's Capital Improvements Program (CIP) was designed to help address critical water infrastructure needs and meet new state and federal water quality regulations. The CIP's commitment is to deliver safe and reliable water by planning, designing and constructing projects that will both upgrade and expand the City's water system.

Previous and on-going capital improvement projects include:

- Current construction of various facilities at the Miramar Water Treatment Plant, including new filters, chemical storage and distribution facilities, pre-ozone building, and administration building. This contract is almost complete, and will be followed by another component to the upgrade and expansion project.
- Construction of the Alvarado Water Treatment Plant flocculation and sedimentation basins. Approximately 40 million gallons of water flow in the basins during the flocculation and sedimentation process, a particle separation procedure.
- Upgrades to pump stations to ensure the water system operates at appropriate pressure levels.
- Replacement of more than 90 miles of cast iron water pipes and working to replace the remaining 190 miles, many of which surpass their operational lifespan at nearly 100 years old.



Large-scale projects such as these are expensive and require continuous maintenance and upkeep. However, San Diegans will benefit significantly for generations to come from the enhancement and modernization of the water treatment and delivery system. The City is committed to doing everything possible to minimize disruptions in your neighborhood that may result when crews are working to repair and improve the system.

For more information, visit [www.sandiego.gov/water/cip](http://www.sandiego.gov/water/cip) or call (619) 533-4679.

## Taste or Odor Variations in Water

Occasionally, water suppliers experience episodes of unpleasant tastes and odors in their water, often characterized as "musty" or "earthy." These taste and odor variations are caused by naturally occurring algae growth in the raw source waters. In San Diego, algae are occasionally found in the source water reservoirs and aqueducts that supply water to the City. These algae may seasonally produce trace amounts of taste and odor producing chemical compounds. The taste and odor compounds do not pose any health risks to the people using the water. The City of San Diego Water Department closely monitors our source waters for algae growth and, when possible, will switch to a different water source to avoid problems from unpleasant tastes and odors.

## Drinking Water Fluoridation

The State of California requires that water agencies serving more than 10,000 customers fluoridate their drinking water supplies if outside funding is provided. At this time, the City has not received sufficient outside funding to pay for a fluoridation system that would cover our entire distribution area. However, the City does measure and report a small amount of fluoride in our water supply, which occurs naturally due to erosion.

The Metropolitan Water District of Southern California (MWD – the largest wholesaler of San Diego's imported water) has elected to begin fluoridating its drinking water supplies by the end of 2007. Because MWD provides the City with treated water in addition to the water to be treated at the City's three water treatment plants, there will be different areas within the City which will receive various blends of fluoridated water. For more information on anticipated blends, please call the Public Information Office at (619) 527-3121 or send an email to [waterops@sandiego.gov](mailto:waterops@sandiego.gov). For more information on MWD's fluoridation program, please call (213) 217-5709 or visit [www.mwdh2o.com](http://www.mwdh2o.com).

## What are Chloramines?

Chloramines are a type of disinfectant that the Water Department uses to prevent re-growth of potentially harmful bacteria in the water distribution system. Chloramines are a combined form of chlorine and ammonia. They are approved by the U.S. Environmental Protection Agency (EPA) as a disinfectant for drinking water, and have been used safely for years. Chloraminated water is safe to drink because the digestive process neutralizes the chloramines before they enter the bloodstream. Chloraminated water is also safe for all other daily uses, such as bathing and cooking. In addition, the treatment process that uses chloramines produces fewer disinfection by-products, such as trihalomethanes.

### Special Exceptions: Kidney Dialysis

Customers who have unique water quality needs and who use specialized home treatments, such as kidney dialysis machines, should make the necessary adjustments to remove chloramines. Like chlorine, chloramines are toxic in dialysis water.

### Aquariums

Customers who have fish tanks in their homes should also take precautions to remove chloramines prior to adding water to tanks. Effective treatments include using granular-activated carbon filters or using chemicals specifically designed to remove chloramines. Allowing drinking water to stand, boiling water, and chemicals that remove chlorine, will not remove chloramines.



# Resources



## We Want to Hear From You!

This is a great opportunity to let the City know about your experience with our services. If there are areas we could improve upon, we want to hear about them. Our customer surveys are typically left on your door when our crew completes a water-related service call. Additionally, surveys are also available online at: [www.sandiego.gov/water/operations/opssurvey.shtml](http://www.sandiego.gov/water/operations/opssurvey.shtml)

We take pride in our work and aim to provide quality customer service in every aspect of our job. We are pleased to report that in the more than 400 surveys sent in to date, 80% of our customers rated our service as “Excellent or Above Average.”

We value your comments about our services and we want to keep up the good work for each and every one of our customers, so please feel free to give us feedback. Thanks for taking the time to send us your comments.

### Important Phone Numbers

General Information	(619) 515-3500
Emergency Hotline	(619) 515-3525
Water Quality Lab	(619) 668-3232
Capital Improvements Program	(619) 533-4679
Water Conservation	(619) 515-3500
City Lakes Fishing Line	(619) 465-3474
Speakers Bureau	(619) 533-6638
U.S. EPA’s Drinking Water Hotline	(800) 426-4791
Storm Water Pollution Prevention	(619) 235-1000

### Important Web Links

City of San Diego Water Department	<a href="http://www.sandiego.gov/water">www.sandiego.gov/water</a>
California Department of Health Services (CDHS)	<a href="http://www.dhs.ca.gov">www.dhs.ca.gov</a>
California EPA	<a href="http://www.calepa.ca.gov">www.calepa.ca.gov</a>
USEPA (Groundwater and Drinking Water)	<a href="http://www.epa.gov/safewater">www.epa.gov/safewater</a>
County of San Diego Dept. of Environmental Health	<a href="http://www.co.san-diego.ca.us/deh">www.co.san-diego.ca.us/deh</a>
San Diego County Water Authority	<a href="http://www.sdcwa.org">www.sdcwa.org</a>
Metropolitan Water District of Southern California	<a href="http://www.mwdh2o.com">www.mwdh2o.com</a>
Project Clean Water	<a href="http://www.projectcleanwater.org">www.projectcleanwater.org</a>
Think Blue	<a href="http://www.thinkblue.org">www.thinkblue.org</a>

This report meets mandatory federal and state requirements for annual customer notification regarding water quality. It was produced and mailed to residences and businesses in the City of San Diego Water Department’s service area. The direct mailing of this report provides the City a cost-effective way to provide virtually all of our customers with information they should have about drinking water standards and quality.

## Landscape Watering Calculator

More than half of the water used by San Diegans goes toward landscape irrigation. You can help conserve water by using the Landscape Watering Calculator. The calculator is a free, easy-to-use, web-based tool that helps you estimate the amount of water your landscape or garden needs. The calculator uses averages that adjust for weather, plants and soils in San Diego. For more information and to access the calculator, please visit [www.sandiego.gov/water](http://www.sandiego.gov/water).



## Sharing the Responsibility of Water Security

Keeping our water supply safe and secure is a top priority for the City of San Diego. The Water Department maintains heightened awareness and security to safeguard our water sources, water treatment plants, and water distribution system.

The Water Department also relies on you, the community, to be our eyes and ears. Stay alert and report any suspicious activity around Water Department facilities. Your safety is a priority, so do not approach or confront strangers. Please report any suspicious activities immediately to your local law enforcement agency and contact the Water Department at (619) 515-3525. Thank you for being part of our security team.



## Speakers Bureau Program

The Water Department has a Speakers Bureau available to give presentations in the community. We can speak to your business, professional, civic or social group on specific water topics and departmental functions. Our team of experts can address water quality and water treatment, water conservation, recycled water, distribution and delivery systems, and capital improvement projects. To schedule a presentation, call our Speakers Bureau office at (619) 533-6638 or e-mail [waterspeakers@sandiego.gov](mailto:waterspeakers@sandiego.gov).

Printed on recycled newsprint.  
This information is available in alternative formats upon request.

# Our Drinking Water, Our Watersheds, Our Responsibility



THE CITY OF SAN DIEGO

Watershed Newsletter 2007

## Watersheds and Reservoirs

Watersheds and reservoirs are integral parts of our regional water supply system. A watershed is an area of land that drains local runoff (and everything collected in the runoff) into reservoirs. City reservoirs, often referred to as lakes, capture local runoff and store it with imported water. This water is supplied to nearby water treatment plants. These pages provide you with information about our efforts to protect these water sources.

## Watershed Sign Program Update

The City of San Diego Water Department has recently launched a pilot Watershed Sign Program in San Diego County. This program will place signs throughout the region informing motorists that they are entering a watershed where a drinking water reservoir is located. The Watershed Sign Program will increase public awareness of San Diego's watersheds and encourage environmental stewardship by our community members.

In 2006, the California Department of Transportation's (Caltrans) Traffic Control Devices Committee unanimously approved this pilot program in the San Diego district. The Metropolitan Water District of Southern California and the San Diego County Water Authority awarded funding to assist with the production, installation, and a public awareness campaign for these signs.

The design of the signs is simple and adaptable. With enough support, we hope that this sign can be adopted by Caltrans as a standard sign and be used by other agencies and organizations throughout California to designate the watershed of any critical water body, such as water supply reservoirs, groundwater basins, or coastal lagoons.

## Signs Are Up In San Diego!

Next time you're out and about, check out the signs at:

- 1) I-8 near Dunbar Lane and East Victoria Dr.
- 2) SR-67 near Scripps Poway Pkwy
- 3) I-15 near Auto Park Way and Camino Del Norte



"We support this program because it helps bring important attention to the motoring public about the watersheds they are driving in. It also serves as a reminder that drinking water reservoirs are located in these watersheds."  
— Rob Hutsel, executive director, San Diego River Park Foundation.

This is an exciting program that can improve our environment both in San Diego and throughout California. Already a number of other jurisdictions in the state have expressed interest in using the signs in their communities to call the public's attention to their respective watersheds.

## Show Support: Post Program Info Online

The California Watershed Network featured the Watershed Sign Program on its web site in May 2007. The nonprofit Network helps people protect and restore the natural environments of California's watersheds while ensuring healthy and sustainable communities. Visit [www.watershednetwork.org](http://www.watershednetwork.org) to learn more.

Program Contact: Destree Lazo,  
Program Coordinator, (619) 232-2112, Ext. 104.

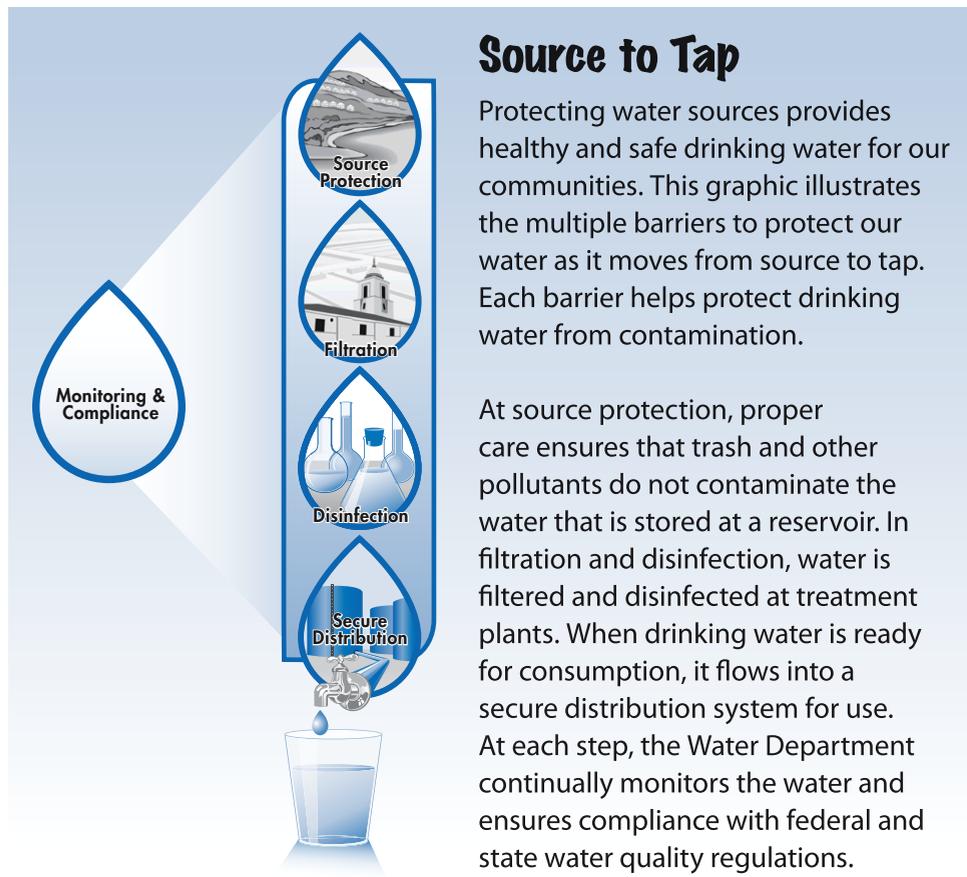
## Learn More: Visit the Watershed Sign Program Webpage

A webpage on the Watershed Sign Program is now available on the City of San Diego website. Learn more about the program by visiting: [www.sandiego.gov/water/operations](http://www.sandiego.gov/water/operations). Click on "Environment," and then choose "Watershed Sign Program."

## Show Support: Write a Letter

The installation of watershed signs in San Diego is a pilot program. Caltrans will determine whether to install these signs in other parts of California depending upon the success of the program here. Letters of support are welcome. Directions for writing and submitting letters of support are available online at the program web page mentioned above.

# Our Drinking Water, Our Watersheds, Our Responsibility



## Managing our Watersheds

The City Water Department has been actively involved in the development of watershed management plans in three key watersheds in San Diego County: San Diego River, Otay River, and San Dieguito River. These three watershed management plans are now complete and can be viewed and downloaded at the Project Clean Water web site at [www.projectcleanwater.org](http://www.projectcleanwater.org).

Because much of these watershed areas fall outside of the City limits, successfully protecting them depends upon cooperation with other jurisdictions. The Water Department continues to be active in watershed management. For example, a Watershed Council has been formed in the San Dieguito Watershed to implement key elements of the Plan; the Water Department is a founding member of the Watershed Council.



## Get Involved!

*We need your help protecting watersheds in the San Diego Region.*

*Please refer to these resources to learn more about watersheds and ways to participate in the protection of our water quality.*

Organization	Activity Type	Phone Number	Website Address
California Department of Health Services	A, B, C, E, T	(916) 445-4171	<a href="http://www.dhs.ca.gov">www.dhs.ca.gov</a>
California Watershed Network	A, B, E, L, P, T	(916) 549-4017	<a href="http://www.watershednetwork.org">www.watershednetwork.org</a>
Center for Watersheds Protection	A, E, P, L, T	(410) 461-8323	<a href="http://www.cwp.org">www.cwp.org</a>
City of San Diego - Water Department	A, B, C, E, F, L, R, T	(619) 527-3121	<a href="http://www.sandiego.gov/water">www.sandiego.gov/water</a>
County of San Diego - Department of Environmental Health	A, B, C, E, T	(619) 338-2222	<a href="http://www.sdcounty.ca.gov/deh">www.sdcounty.ca.gov/deh</a>
County of San Diego - Project Clean Water	A, B, C, E, L, T	(888) 846-0800	<a href="http://www.projectcleanwater.org">www.projectcleanwater.org</a>
I Love a Clean San Diego	A, B, C, E, S	(619) 291-0103	<a href="http://www.ilacsd.org">www.ilacsd.org</a>
Multiple Species Conservation Plan - County of San Diego	E, L	(619) 533-4543	<a href="http://www.sandiego.gov/planning/mscp">www.sandiego.gov/planning/mscp</a>
Otay Valley Regional Park	A, C, E, L	(858) 966-1344	<a href="http://www.ovrp.org">www.ovrp.org</a>
Resource Conservation District - Greater San Diego County	A, B, E	(760) 745-2061	<a href="http://www.rcdsandiego.org">www.rcdsandiego.org</a>
San Diego Audubon Society	A, C, E, L	(619) 682-7200	<a href="http://www.sandiegoaudubon.org">www.sandiegoaudubon.org</a>
San Diego Coastkeeper	A, C, E, T	(619) 758-7743	<a href="http://www.sdbaykeeper.org">www.sdbaykeeper.org</a>
San Diego Conservation Resource Network	A, C, E, L, P	(858) 357-1708	<a href="http://www.sdcrn.org">www.sdcrn.org</a>
San Diego National Wildlife Refuge	A, C, E, F, L	(619) 691-1262	<a href="http://www.fws.gov/sandiegorefuges">www.fws.gov/sandiegorefuges</a>
San Diego Regional Water Quality Control Board	A, B, C, E, L	(858) 467-2952	<a href="http://www.waterboards.ca.gov/sandiego">www.waterboards.ca.gov/sandiego</a>
San Diego River Conservancy	B, C, E, L, P	(619) 645-3183	<a href="http://www.sdrca.gov">www.sdrca.gov</a>
San Diego River Park Foundation	A, B, C, E, F, L, P, R, T	(619) 297-7380	<a href="http://www.sandiegoriver.org">www.sandiegoriver.org</a>
San Dieguito River Park	A, B, E, L, C	(858) 674-2270	<a href="http://www.sdrp.org">www.sdrp.org</a>
San Dieguito River Valley Conservancy	E, L	(858) 755-6956	<a href="http://www.sdrvc.org">www.sdrvc.org</a>
Southern California Wetlands Recovery Project	E, L	(510) 286-4181	<a href="http://www.scwrp.org">www.scwrp.org</a>
Tijuana Estuary	A, B, C, E, T	(619) 575-3613	<a href="http://www.tijuanaestuary.com">www.tijuanaestuary.com</a>
The Trust for Public Land	A, E, L	(415) 495-4014	<a href="http://www.tpl.org">www.tpl.org</a>
Think Blue	A, B, C, E, S	(888) 844-6525	<a href="http://www.thinkblue.org">www.thinkblue.org</a>
U.S. Environmental Protection Agency - Region 9: The Pacific Southwest	B, E, L, T	(415) 947-8707	<a href="http://www.epa.gov/region9/water">www.epa.gov/region9/water</a>
USDA Forest Service- Pacific Southwest Region	A, B, C, E, F, L, P, R	(707) 562-8737	<a href="http://www.fs.fed.us/r5">www.fs.fed.us/r5</a>
Watershed Management Council	A, E, T	(208) 364-4094	<a href="http://www.watershed.org">www.watershed.org</a>

### Activity Type Key

A: Environmental activism	L: Land conservation and management
B: Business related protection and education activities	P: Planting trees and streambank repair/protection
C: Clean-up of trash and litter	R: Rowing, canoeing, and related boating activities
E: Environmental education	S: Storm drain marking
F: Fishing or recreation activities	T: Water quality testing





THE CITY OF SAN DIEGO

# Appendix of Program Materials





THE CITY OF SAN DIEGO

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Milestone Matrix

Fact Sheet

Watershed Sign Locations

Map of Interested Stakeholders

Western Municipal Water District and Inland Empire Waterkeeper

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Website

Survey

Press and Media

E-newsletters and Reports



THE CITY OF SAN DIEGO

# Milestone Matrix



## Watershed Sign Program Key Milestones

Updated: 8/28/08

Date	Milestone
August 2004	City of San Diego received a \$2,500 grant from MWD to create and implement a Watershed Sign Program
July 28, 2005	State Caltrans - California Traffic Control Devices Committee (CTCDC) Presentation 1: City of San Diego introduced program
November 17, 2005	State Caltrans - CTCDC Presentation 2: City of San Diego proposed sign design templates
February 2, 2006	City of San Diego presented the Watershed Sign Program to Watershed Stewardship Initiative Group
February 23, 2006	State Caltrans - CTCDC Presentation 3: City of San Diego obtained approval to conduct pilot program in San Diego
June 2006	City of San Diego received a \$11,000 grant from MWD CCP for Phase 2
August 21, 2006	Caltrans provided sign template guide and specifications to City of San Diego
January 17, 2007	City of San Diego presented the Watershed Sign Program to Project Clean Water Outreach Workgroup and Ed TAC
February 2007	City of San Diego received \$7,000 CWA JPIC grant for Phase 2
February 16, 2007	City of San Diego distributed Watershed Sign Program E-news - Issue 1
March 15, 2007	City of San Diego presented the Watershed Sign Program to San Diego Regional Storm Water Copermittees
April 26, 2007	First set of watershed signs installed on SR 67
May 3, 2007	Rest of the watershed signs installed at I-15 and I-8
May 22, 2007	City of San Diego discovered wrong sign design of watershed are installed
July 18, 2007	City of San Diego distributed Watershed Sign Program E-news - Issue 2
September 20, 2007	Rob Hutsel of San Dieguito River Park Foundation went to California Water Network Forum and introduced & presented the Watershed Sign Program (Refer to agenda in this section)

City of San Diego = City of San Diego Water Department  
 WMWD = Western Municipal Water District  
 IEWK = Inland Empire Waterkeeper

## Watershed Sign Program Key Milestones

Updated: 8/28/08

Date	Milestone
November 20, 2007	Correct watershed signs are installed
April 18, 2008	WMWD/IEWK presented a PowerPoint to the Santa Ana Regional Water Quality Control Board and gained unanimous support and financial support
April 29, 2008	WMWD/IEWK included Watershed Sign Program information in their IEWK's monthly newsletter
May 20, 2008	WMWD/IEWK presented a PowerPoint to Santa Ana Watershed Project Authority (a joint-powers authority) and gained their support

**2007 CALIFORNIA WATERSHED FORUM:  
A Roundtable Discussion to Create a Statewide Watershed Program**

**SEPTEMBER 20, 2007**

CalEPA Building  
1001 I Street  
Sacramento, CA

**DRAFT AGENDA**

- 8:00 Registration and Networking Breakfast**  
Join us early for coffee and pastries in the Byron Sher Auditorium. Watershed groups and other organizations are encouraged to display exhibits and share information. Please contact Kevin Ward (kward@ucdavis.edu) if you are interested in displaying information. There is no charge with paid registration.
- 10:00 Welcome to the 2007 California Watershed Forum**  
**Mary Lee Knecht** California Watershed Network  
**Rob Hutsel** Watershed Sign Program  
**Michael Wellborn** California Watershed Network
- 10:15 A Vision for California Watersheds**  
**Mike Chrisman** California Secretary for Resources
- 10:30 Looking Back to Move Forward: Success Stories of the "12 Steps"**  
**Sari Sommarstrom** Sommarstrom and Associates  
**Laurel Ames** California Watershed Network
- 10:45 Building a Statewide Watershed Program: This is no déjà vu!**  
**John Lowrie** CALFED Bay-Delta Program Watershed Program Manager  
**Bridget Luther** Director of Department of Conservation  
**Robert Meacher** Plumas County Supervisor
- 12:00 Networking Lunch** (Sandwiches, salads, and beverages to be provided)
- 1:15 State Agencies and Watershed Management: Where is the love?**  
**Brian Leahy** Department of Conservation  
**John Woodling** Department of Water Resources  
**Dr. Gary Wolff** State Water Resources Control Board
- 3:00 Networking Break**
- 3:15 Present, Future, and Sustainable Funding for Watershed Management**  
**Assemblyman John Laird** Assembly Budget Committee (*invited*)  
**Assemblyman Jared Huffman** Assembly Water, Parks, and Wildlife Committee
- 4:15 Forum Wrap-Up and Next Steps**  
**Martha Davis** Inland Empire Utilities Agency

**Registration Form**

**2007 CALIFORNIA WATERSHED FORUM:  
A Roundtable Discussion to Create a Statewide Watershed Program**

**SEPTEMBER 20, 2007**

CalEPA Building  
1001 I Street  
Sacramento, CA

Name:	
Title:	
Agency/ Organization:	
Address:	
Daytime Phone:	
E-mail:	

**Registration Fee**

Please Check Box		
Early Registration (by September 4) \$35		
Registration after September 4 \$45		

Please mail this registration form with a check written to the "California Watershed Network."  
PayPal option is available at [www.watershednetwork.org](http://www.watershednetwork.org).

California Watershed Network  
PO Box 188005  
Sacramento, CA 95818

Updated information will be available at: [www.watershednetwork.org](http://www.watershednetwork.org). Please email  
[info@watershednetwork.org](mailto:info@watershednetwork.org) or call 916.549.4017 with any questions.



THE CITY OF SAN DIEGO

# Fact Sheet





THE CITY OF SAN DIEGO

## Water Department Watershed Sign Program Fact Sheet

### Goal and Purpose

The overall goal of the Watershed Sign Program is to create opportunities for the public to learn about the importance of San Diego's watersheds and encourage environmental stewardship of the watersheds by members of our community. The sign's purpose is twofold: to serve as a reminder to motorists that they are traveling through a watershed, and to serve as a tool to increase overall awareness that the responsibility of preserving the cleanliness of our watersheds rests on the entire community. By taking care of our watersheds, we also protecting the water quality of our drinking source water reservoirs.

### Locations of Signs

Interstate 8 near Dunbar Lane and East Victoria Dr.  
State Route 67 near Scripps Poway Pkwy.  
Interstate 15 near Auto Parkway and Camino Del Norte



### Benefits

#### Local Benefits:

- Advances the City's storm water pollution prevention goals
- Implements the San Diego Water Department's Watershed Sanitary Survey recommendations for public education on source water protection
- Fosters cross-jurisdictional coordination

#### Regional Benefits:

- Supports protection of water quality in drinking source water reservoirs. These reservoirs are part of the regional water supply infrastructure, supplying drinking water to 1.5 million people in the City of San Diego and neighboring cities and communities.
- Supplements the San Diego Regional Water Quality Control Board's efforts to better control urban runoff

#### State Benefits:

- Creates a recognizable and uniform sign design throughout the state
- Supplements Caltrans' "Don't Trash California" anti-litter campaign, because it helps decrease trash or pollutants on roadways

#### Federal Benefits:

- Supplements the U.S. Environmental Protection Agency's efforts to increase awareness and education of the importance of preserving our natural resources; and the USEPA's drinking source water protection program.

*For more information on this program or to submit a letter of support, please visit [www.sandiego.gov/water](http://www.sandiego.gov/water) or contact the Program Coordinator, Destree Lazo at (619) 232-2112 ext. 104 or via email: [DestreeL@CollaborativeServices.biz](mailto:DestreeL@CollaborativeServices.biz).*





THE CITY OF SAN DIEGO

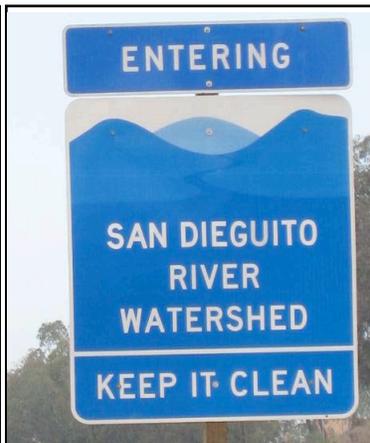
# Watershed Sign Locations





THE CITY OF SAN DIEGO

## Watershed Sign Locations





THE CITY OF SAN DIEGO

# Map of Interested Stakeholders





THE CITY OF SAN DIEGO



## City of San Diego Pilot Watershed Sign Program

### Agencies & Organizations who have expressed interest in using signs:

- California Watershed Network
- County of Marin
- County of Orange
- County of Riverside
- County of San Bernardino
- County of San Diego
- El Dorado Irrigation District
- Escondido Creek Conservancy, Escondido
- Malibu Creek Watershed, County of Los Angeles
- Once Upon a Wetland, Ojai
- Russian River, Ukiah, Mendocino County
- San Dieguito River Valley Conservancy, San Diego
- Tijuana River Watershed, City of Imperial Beach
- Urban Creeks Council, Berkeley



THE CITY OF SAN DIEGO

# Western Municipal Water District and Inland Empire Waterkeeper



## **Western Municipal Water District and Inland Empire WaterKeeper Watershed Sign Program Efforts**

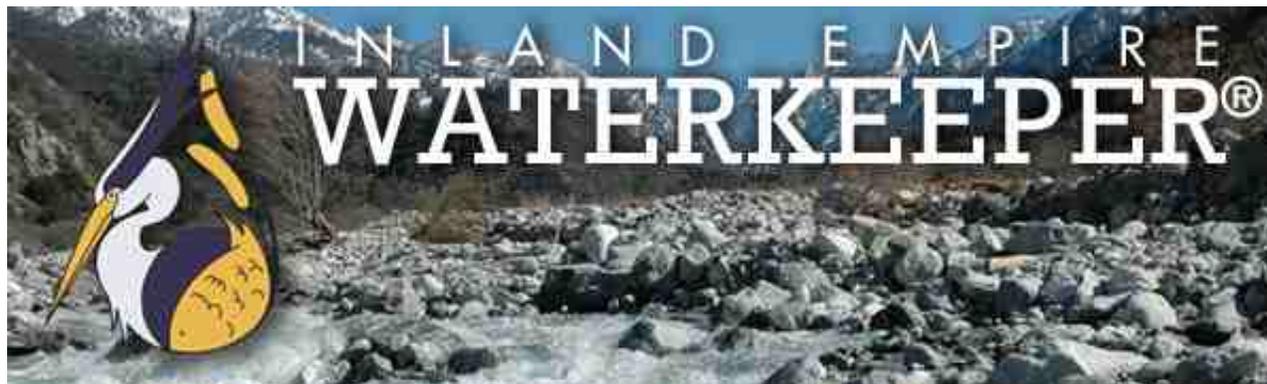
In an effort to enhance and protect water quality in the watersheds in California, Western Municipal Water District (WMWD) is collaborating with Inland Empire Waterkeeper (IEWK) to support the City of San Diego Watershed Sign Program and expand the program through the Santa Ana River Watershed, which encompasses the counties of Riverside, Orange and San Bernardino.

WMWD was formed in 1954 to bring supplemental water to Riverside County. Today, the District serves roughly 24,000 retail and eight wholesale customers with water from both the Colorado River and the State Water Project, as well as groundwater within the Murrieta Division. WMWD is one of five of the member agencies of the Santa Ana Watershed Project Authority.

Established in 2005, IEWK has been working with cities and regulatory agencies to help educate the public about the importance of stopping water pollution in the Upper Santa Ana River Watershed. IEWK educates students and the public about what they can do in their watershed to prevent water pollution. They also involve the residents of the Inland Empire communities in hands-on stream habitat restoration projects, which in turn aids in watershed protection. The goal of IEWK is to create awareness of the watershed to the Inland Empire residents and to create a balance between development interests and environmental concerns to maintain a clean and healthy watershed for our future.

Together, WMWD and IEWK have created their own success for the Watershed Sign Program:

- Presented a PowerPoint to the Santa Ana Regional Water Quality Control Board regarding the Watershed Sign Program
- Gained the unanimous support and financial support of the Santa Ana Regional Water Quality Control Board
- Placed Watershed Program information in the IEWK's monthly newsletter, which is distributed to 300 people
- Gained the support of the Santa Ana Watershed Project Authority (a joint powers authority)
- Gained the support of Caltrans Districts 8 and 12
- Gained the support of the CTCDC Chair
- Placed Watershed Program information in the WMWD's 2008 Consumer Confidence Report, which is distributed to 24,000 customers



**In This Issue**

- IE Snapshot Day 2008
- Annual Report
- Water Symposium
- Freeway Sign Program
- L.E.A.P.S Update
- Job Opportunity

[Join Our Mailing List!](#)

**Quick Links**

- [Inland Empire Waterkeeper](#)
- [Orange County Coastkeeper](#)
- Our Projects:**
- [L.E.A.P.S & TE/VS line](#)
- [Santa Ana Mountains Tunnel](#)
- [Angel Canyon Falls](#)
- Important Developments:**
- [91 Freeway Improvements](#)
- [Gavilan Hills Freeway](#)
- [San Jacinto River Levee](#)

**New T-Shirts for IEWK!**



Designed and screen-printed by students of Canyon Springs High School's Academy of Creative Technologies, our t-shirts are super cool! To get your very own shirt, become an IEWK member with a tax-

**Greetings!**

Please enjoy our April wrap-up!

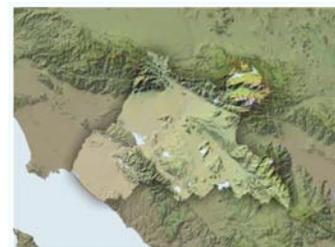
Inland Empire Waterkeeper (IEWK) is a grassroots nonprofit water quality organization dedicated to enhancing and protecting the Upper Santa Ana River Watershed through advocacy, education, restoration and



enforcement. We look forward to working with concerned citizens like you to fulfill our mission. [Photo of Programs Director, Autumn DeWoody demonstrating urban runoff using our diorama on April 22, 2008 at WMWD's Earth Night in the Garden]

**Riverside County Water Symposium, 2008**

Inland Empire Waterkeeper is proud to announce our support and participation in the 5th Annual Riverside County Water Symposium! As a co-host of the event we encourage all of you to attend on **Thursday, May 1** from **9am to 3pm** at the **Morongo Casino Resort & Spa**.



Non-profits should ask about the reduced ticket price.

Go to [www.rivcoh2o.com](http://www.rivcoh2o.com) for details. See you there!

**Watershed Signage Program**



Ever had your watershed welcome you on the freeway? Now the Santa Ana River Watershed will welcome millions of freeway drivers each day on 12 different highways with signs that

deductible [donation](#) of \$10 or more!

### Corporate Sponsors & Private Donations

Money is tight for fledgling non-profits! We are looking for generous corporate sponsors and private donations to fund our crucial mission. Donations can be made on our [website](#) and you will be given a receipt for your tax-deductible gift.

Corporate sponsors will be recognized on our web page and printed materials. Donations can be made to specific projects/programs.

### Snapshot Day 2008!

Not since 2006 has a water quality Snapshot Day been formally held in the IE. Three local high school enviro clubs will join IEWK Staff and Volunteers to sample 3-4 sites each from Corona to Riverside. Look for results & photos next month! Thanks to Mr. Krick of La Sierra HS, Ms. Harris of Arlington HS and Ms. Hampton of King HS.

### CA Keeper Alliance

All \*Keeper\* organizations in the State are represented under the umbrella of the **California Coastkeeper Alliance**, including IEWK! Read about all of our accomplishments in the [2007 CCKA Annual Report \(PDF, 3555 KB\)](#)



say, **Santa Ana River Watershed: Keep It Clean!**

IEWK is working with Caltrans, SAWPA, Santa Ana Regional Board and local water districts in securing funds for installing 5' x 5' freeway signs to let people know when they enter our watershed. Along the SR-74, I-215 and I-15 we will also have signs that say, **San Jacinto River Watershed: Keep It Clean!**

[CLICK HERE FOR MAP OF SIGN LOCATIONS!](#)

Each sign costs around \$5,000 - sponsors needed! More details to come. Call Waterkeeper, Lee Reeder at 951-689-6842.

### L.E.A.P.S

**April 10:** Press Enterprise article on new MOU between EVMWD and Nevada Hydro [\(CLICK FOR LINK\)](#)

**April 25:** Center for Biological Diversity [Press Release](#), "**Hydroelectric Dam Doesn't Add Up: Elsinore**

**Valley Water District to Discuss Internal Economic Study"** co-authored by the Sierra Club-Santa Ana Mountains Task Force and IEWK.

**April 28:** Article in Press Enterprise, "[2006 report casts doubt on proposed Lake Elsinore hydroelectric plant.](#)"

**April 28:** EVMWD Board Members discuss formerly confidential report, "**An Economic Evaluation of the LEAPS Project and Associated Transmission for the EVMWD**", Feb. 7, 2006 by Economic Insight, Inc.



[LEAPS is the Lake Elsinore Advanced Pump Storage project that is two-fold: hydroelectric dam above Lake Elsinore in the Cleveland National Forest and 30-mile interconnect transmission line through the National Forest.] Read more [HERE](#), or [www.stopleaps.info](#) or [www.evmwd.com](#) or [www.leapsforward.org](#).

### IEWK Job Opening

Adventurous [Field Tech & Project Asst. \(PDF, 191 KB\)](#) for a 12-month surface water sampling job in the San Bernardino area. Part-time with possible full-time in future. Must fill by June!

Please feel free to contact us at [info@iewaterkeeper.org](mailto:info@iewaterkeeper.org). Thank you for your continued interest in Inland Empire Waterkeeper.

Sincerely,



Lee Reeder  
Inland Empire Waterkeeper



Garry Brown  
Orange County Coastkeeper



**Inland Empire Waterkeeper | 3741 Merced Drive, Unit F2 | Riverside | CA | 92503**



**Inland Empire WATERKEEPER®**  
 Advocacy • Education • Restoration • Enforcement



## Watershed Awareness Project

### Driving Home the Watershed Message

As part of our commitment to Advocacy and Education, Inland Empire Waterkeeper has launched a high-profile campaign to increase awareness of the Santa Ana River Watershed and San Jacinto Watershed in the Inland Empire and Orange County. The Santa Ana River Watershed Awareness Program will consist of two major elements:

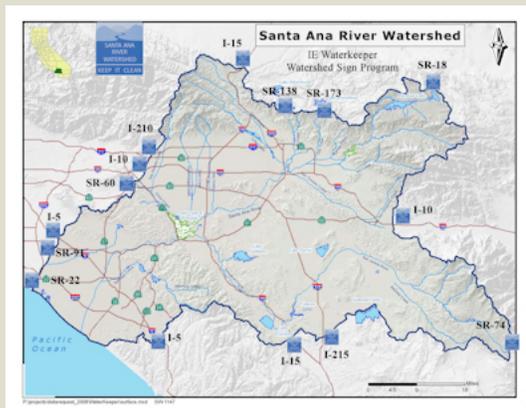
- > A freeway sign program
- > A public education campaign



### Freeway Sign Program

The Santa Ana River Watershed Freeway Sign Program was initiated by Inland Empire Waterkeeper with support from Western Municipal Water District and the Santa Ana Watershed Project Authority. The Santa Ana Regional Water Quality Control Board unanimously voted its support for the Inland Empire Waterkeeper Watershed Freeway Sign Program at its April 18, 2008 board meeting. The vision of the project is to install 15 signs along several interstate freeways and state highways entering the watershed (see attached map).

The purpose of the signs is to create awareness that people are entering the Santa Ana River Watershed and to encourage them to keep it clean. Specifically, 12 of the watershed signs will state, "Santa Ana River Watershed: Keep It Clean" and 3 signs will state, "San Jacinto River Watershed: Keep It Clean." The signs will adhere to the design guidelines already approved for an existing program in San Diego County. Inland Empire Waterkeeper will use Caltrans-approved vendors to create the signs, which will be installed by Caltrans personnel or approved Caltrans vendors.



To see a larger version of the map, [click here](#).

### Public Education Campaign

The public education component of the Watershed Awareness Program will include billboards, media events, an interactive Web site, and public service announcements. During this approximately one-year process, we will be educating the public about the watershed while explaining the meaning of the signs. The media effort will continue after the signs appear on the freeways and millions of people are passing them each day, so that they will understand the deeper message. We will choose billboard locations near the signs to drive home the messages that, (1) they are entering our watershed, (2) it has inherent value and meaning, and (3) there are reasons to keep it clean through simple acts of stewardship.

The Freeway Sign Program will begin in the summer of 2008 with coordination between Inland Empire Waterkeeper and Caltrans Districts 8 and 12. Depending on Caltrans' schedule, we plan to have the signs in place on all freeways by the end of summer

2009. The media campaign will begin in fall of 2008.

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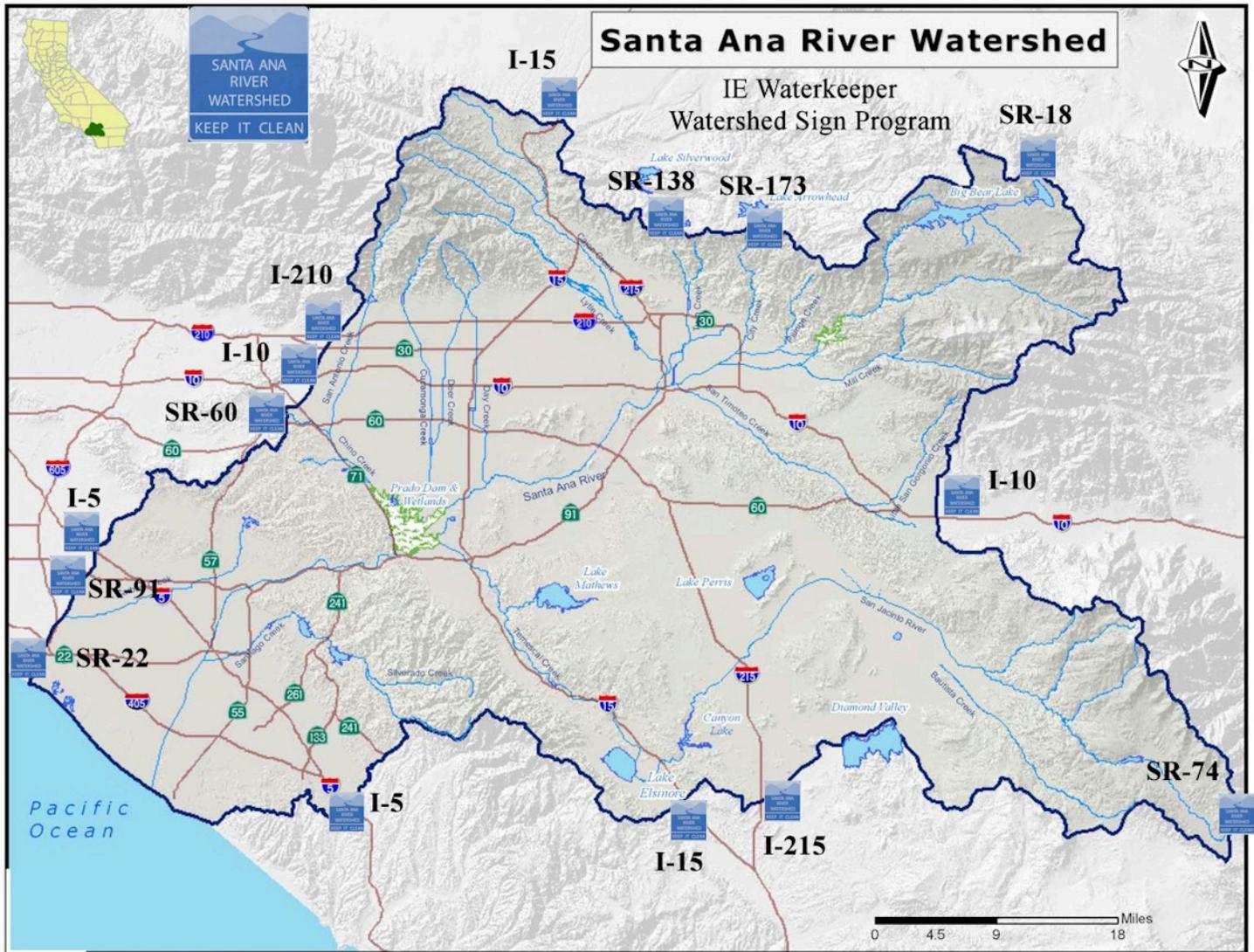


VIEW FROM MT. RUBIDOUX, RIVERSIDE

SITE BY  
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© 2007 Inland Empire Waterkeeper





# S A W P A

## SANTA ANA WATERSHED PROJECT AUTHORITY

11615 Sterling Avenue, Riverside, California 92503 • (951) 354-4220

### NOTICE AND AGENDA

### COMMISSION MEETING

AT

WESTERN MUNICIPAL WATER DISTRICT  
450 E. ALESSANDRO BLVD., RIVERSIDE, CA 92517

TUESDAY, MAY 20, 2008 – 10:00 A.M.

### AGENDA

1. CALL TO ORDER/PLEDGE OF ALLEGIANCE (Ron Sullivan, Chair)
  
2. PUBLIC COMMENTS

Members of the public may address the Commission on any item that is within the jurisdiction of the Commission; however, no action may be taken on any item not appearing on the agenda unless the action is otherwise authorized by Subdivision (b) Section 54954.2 of the Government Code.

3. CLOSED SESSION

The Commission may adjourn to a Closed Session to consider litigation matters, personnel matters or other matters as provided for in the Ralph M. Brown Act (Section 54950 et seq., of the Government Code).

A. PURSUANT TO GOVERNMENT CODE SECTION 54956.9 (a) – CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION

- SAWPA vs. Keeton Construction and Ricketts, RSC Case No. RIC 471792
- SAWPA vs. Castle and Cooke, et al., RSC Case No. RIC 495874

4. OLD BUSINESS

A. FY 2009 AMENDED BUDGET (CM#7064)

**Presenter:** Karen Williams

**Recommendation:** Adopt the FYE 2009 Amended Budget as presented and request EMWD to notice the consideration of the FYE 2009 Amended Budget on their next Board of Directors Meeting agenda and approve (by Board Resolution pursuant to the Joint Powers Authority agreement) the FYE 2009 Amended Budget.

NOTE: Last year, EMWD adopted a one-year Budget Resolution, while the other four member agencies' budget resolutions contained adoption of a two-year budget for FYs 2008/09.

**B. STATE LEGISLATIVE UPDATE**

**Presenter:** Celeste Cantú

**Recommendation:** Legislative Committee recommends that the Commission take the following position:

<u>Bill</u>	<u>Author</u>	<u>Summary</u>	<u>Position</u>
AB 1654	Huffman	Integrated Regional Water Management Planning Act	Support

**5. NEW BUSINESS**

**A. SARI REACH V NICHOLS ROAD PIPELINE REALIGNMENT (CM#7054)**

**Presenter:** David Ruhl

**Recommendation:** Approval of:

1. Change Order No. 1 to Task Order No. KENN320-03-02 with Kennedy/Jenks Consultants for inspection and engineering services during construction of the Nichols Road Pipeline Realignment for an amount not-to-exceed \$33,970; and
2. A change in the contract amount with Choctaw Contractors for construction of the Nichols Road Pipeline Realignment in the amount of \$95,710 for a total contract amount of \$465,010, including a contingency of \$61,550, direct staff to prepare the appropriate change order, and authorize the General Manager to execute said document.

**B. SARI BUSINESS DEVELOPMENT PLAN, MAXIMIZING REUSE (CM#7052)**

**Presenter:** Jeff Beehler

**Recommendation:** That the Commission:

1. Approve the modified language in the General Services Agreement regarding insurance requirements; and
2. Authorize the General Manager to execute a General Services Agreement and a task order with Environmental Engineering & Contracting, Inc. to prepare a SARI Business Development Plan, and to assist in SAWPA's joint effort with OCSD to evaluate options for maximizing reuse of SARI flows (\$53,800).

**C. SARI REACH V MAINTENANCE ACCESS STRUCTURES PROJECT (CM#7053)**

**Presenter:** David Ruhl

**Recommendation:** Authorize the General Manager to award a contract for public works construction to Zondiros Corporation, the lowest, responsive, responsible bidder in the amount of \$177,600 (including a 20% contingency) to install two maintenance access structures (points) on SARI Reach V, and waive the minor, immaterial irregularities.

**6. CONSENT CALENDAR**

All matters listed under the Consent Calendar are considered to be routine and non-controversial and will be acted upon by the Committee by one motion in the form listed below. There will be no separate discussion on these items prior to the time the Committee votes, unless any Committee members, staff, or the public requests specific items be discussed and/or removed from the Consent Calendar for separate action.

**A. APPROVAL OF THE MINUTES FROM THE MEETING HELD 4-15-08**

**Recommendation:** Approve as mailed.

**B. TREASURER'S REPORT FOR THE MONTH OF APRIL 2008**

**Recommendation:** Receive and file.

**C. ADOPTION OF RESOLUTION NO. 500, AUTHORIZING AUTOMATIC DEPOSIT TRANSACTIONS WITH CITIZENS BUSINESS BANK (CM#7056)**

**Recommendation:** Adopt Resolution No. 500, authorizing Automated Deposit Transactions for SAWPA's checking accounts held with Citizens Business Bank.

**D. SANTA ANA WATERSHED SIGN PROGRAM (CM#7057)**

**Recommendation:** Authorize participation in the Santa Ana Watershed Sign Program.

**E. REQUEST FOR PROPOSALS (RFP) TO PREPARE A PROGRAMMATIC ENVIRONMENTAL IMPACT REPORT FOR REPAIRS TO THE UNLINED REINFORCED CONCRETE PIPE (RCP) UPSTREAM OF PRADO DAM (REACHES IV-A AND IV-B) (CM#7055)**

**Recommendation:** Authorize the issuance of a RFP for environmental and permitting services to prepare a Programmatic Environmental Impact Report for repairs of the unlined RCP upstream of Prado Dam.

**F. INFORMATIONAL REPORTS**

**Recommendation:** Receive and file the following reports:

From the Administrative Committee Meeting

- Cash Transactions Report – March 2008
- Inter-Fund Borrowing – February 2008 (CM#7060)
- Performance Indicators and Financial Reporting (CM#7061)

From the Legislative Committee

- State Legislative Update (CM#7062)

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**END OF CONSENT CALENDAR**

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**7. REPORTS**

**Recommendation:** Receive and file the following oral/written reports and updates.

**A. PROPOSITIONS 98 AND 99 (CM#7066)**

**Presenter:** David Wysocki

**B. SARI STATUS REPORT (CM#7051)**

**Presenter:** David Ruhl

**C. WATER CONSERVATION PUBLIC INFORMATION COORDINATION MEETING (CM#7065)**

**Presenter:** Mark Norton

**D. GENERAL MANAGER'S REPORT**

- June 5<sup>th</sup> Legislative Reception
- OCSD Update

- E. **CHAIR'S COMMENTS/REPORT**
- F. **COMMITTEE CHAIRS' REPORTS**
- G. **COMMISSIONERS' COMMENTS**

8. **FEATURED PRESENTATION – INTEGRATED PLANNING IN ORANGE COUNTY**

**Presenter:** Mary Anne Skorpanich, County of Orange, Director - OC Watersheds Program  
**Recommendation:** Receive and file.

9. **ADJOURNMENT**

Any person with a disability who requires accommodation in order to participate in this meeting should telephone Commission Secretary Patti Bonawitz at (951) 354-4230, at least 48 hours prior to the meeting in order to make a request for a disability-related modification or accommodation.

**PLEASE NOTE:**

Materials related to an item on this Agenda submitted to the Commission after distribution of the agenda packet are available for public inspection in the Authority's office located at 11615 Sterling Avenue, Riverside, during normal business hours. Also, such documents are available on the Authority's website at [www.sawpa.org](http://www.sawpa.org) subject to staff's ability to post the documents before the meeting.

**Declaration of Posting**

I, Patti Bonawitz, Commission Secretary of the Santa Ana Watershed Project Authority certify that a copy of this agenda has been posted in the Agency's office at 11615 Sterling Ave., Riverside, California by 5:30 p.m. on Wednesday, May 14, 2008.

  
Patti Bonawitz

## **2008 - Upcoming Meetings/Events**

### June

6-3-08            Committee Meetings  
6-5-08            Legislative Reception – Historic Galleano Winery, Mira Loma  
6-17-08           Commission Meeting

### July

7-1-08            Committee Meetings  
7-15-08           Commission Meeting

### August

8-5-08            Committee Meetings  
8-19-08           Commission Meeting

### September

9-2-08            Committee Meetings  
9-16-08           Commission Meeting

### October

10-7-08           Committee Meetings  
10-21-08          Commission Meeting

### November

11-4-08           Committee Meetings  
11-18-08          Commission Meeting

### December

12-2/5-08        ACWA Conference  
DARK              No SAWPA Meetings

# Annual Drinking Water Quality Report



# 2008

Covering the period from January through December 2007, this annual water quality report, provided to you by Western Municipal Water District, gives you a snapshot of important information about your drinking water. Western's water is safe and healthy to drink; for those individuals with special health concerns, please refer to page 4.

*Note: Industrial and commercial users, including hospitals, medical centers and health clinics, please forward this report to your Environmental Compliance Manager.*



Water Stewards.  
Redefining Green.



WESTERN MUNICIPAL WATER DISTRICT  
PO Box 5286 · Riverside, CA 92517-5286



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## Message from the GM

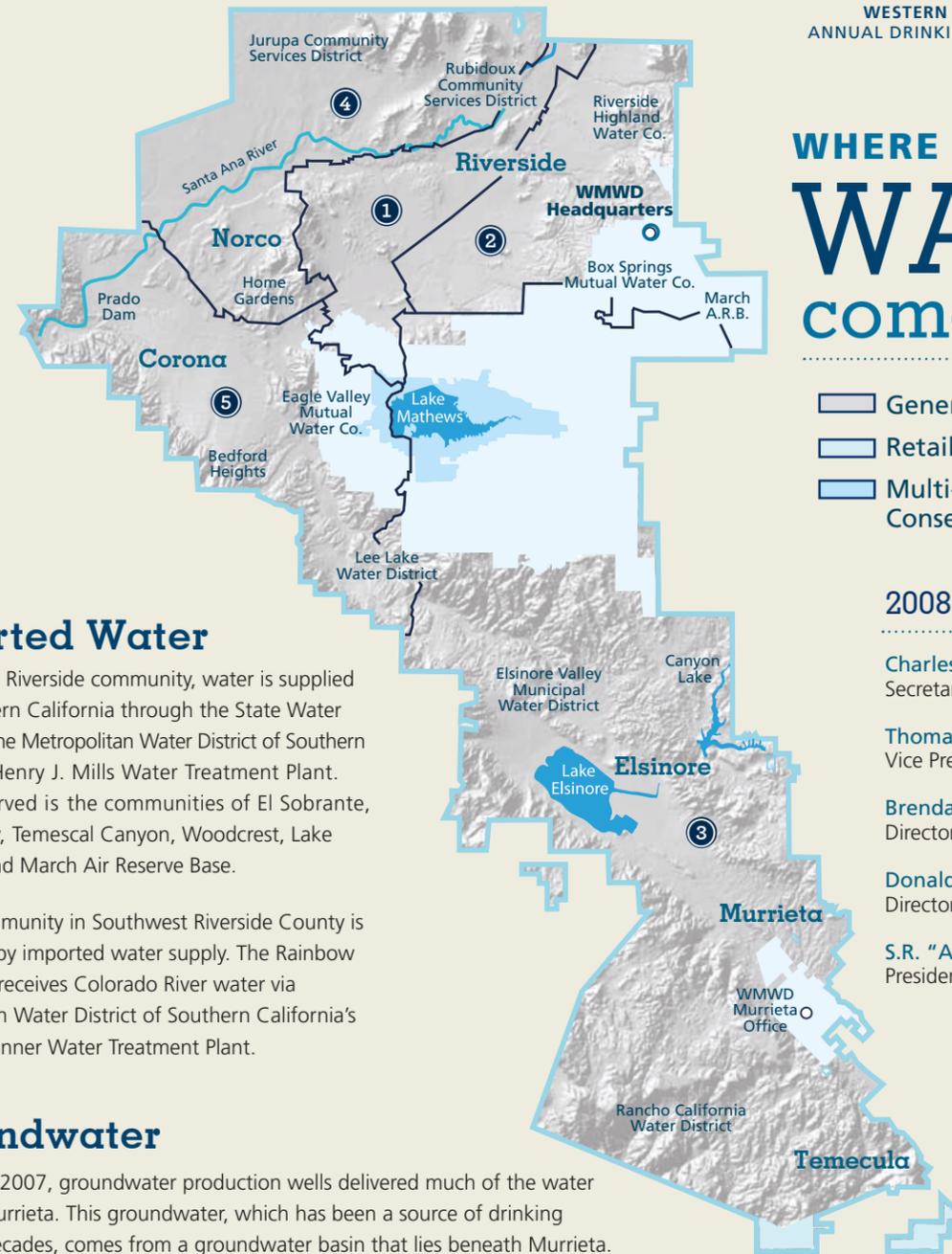
Western's Annual Drinking Water Quality Report for 2007 contains a detailed summary of our water quality monitoring and testing.

Western Municipal Water District is pleased to present the report to you, our consumers. The U.S. EPA and the California Department of Public Health (CDPH) require that all water agencies produce an annual report to inform customers about the quality of their drinking water. Flipping through the pages, you'll find important information about the origin of your water, the composition of your water and the steps we take to protect your health and safety with our water treatment process and water quality monitoring and testing. It's important to know that the production and mailing of this report is mandatory and efforts have been made to keep costs down.

Western's mission is to provide you with safe, reliable, cost-effective water and outstanding customer service in an environmentally conscious manner. We're also committed to continually improving our services and operations. In this report, you'll also read about how Western has invested in improving our water systems and water quality through our Capital Improvements Program (CIP). The report highlights several completed CIP projects that have significantly improved our water system and also discusses areas where we are making improvements to continue to meet future water quality regulations. It also addresses our ongoing efforts to protect the environment through watershed and source water protection, indoor and outdoor water conservation, and storm water pollution prevention.

Providing quality water and service to our customers is the priority for the District. I encourage you to become familiar with your water through this report and learn more about our daily work to fulfill this commitment. If you have any questions about this report or water quality, please contact our Public Affairs Office at 951.789.5039 or visit us on the web at [www.wmwd.com](http://www.wmwd.com).

John V. Rossi  
GENERAL MANAGER



# WHERE YOUR WATER comes from

- General District
- Retail District
- Multi-Species Habitat Conservation Plan

## 2008 Board of Directors

- Charles D. Field**  
Secretary-Treasurer, Division 1
- Thomas P. Evans**  
Vice President, Division 2
- Brenda Dennstedt**  
Director, Division 3
- Donald D. Galleano**  
Director, Division 4
- S.R. "Al" Lopez**  
President, Division 5

## Imported Water

In Western's Riverside community, water is supplied from Northern California through the State Water Project via the Metropolitan Water District of Southern California's Henry J. Mills Water Treatment Plant. The area served is the communities of El Sobrante, Eagle Valley, Temescal Canyon, Woodcrest, Lake Mathews and March Air Reserve Base.

A small community in Southwest Riverside County is also served by imported water supply. The Rainbow community receives Colorado River water via Metropolitan Water District of Southern California's Robert F. Skinner Water Treatment Plant.

## Groundwater

For most of 2007, groundwater production wells delivered much of the water supply in Murrieta. This groundwater, which has been a source of drinking water for decades, comes from a groundwater basin that lies beneath Murrieta. Additionally, imported Colorado River water was provided via the Metropolitan Water District of Southern California's Robert F. Skinner Water Treatment Plant for several months later in the year. While needs in the area have previously been met by these groundwater wells, Western anticipates that much of the future water demand will need to be met by imported treated water supplies.

## Our Service Areas

### RIVERSIDE SERVICE AREA

This water is supplied solely from Northern California through the State Water Project via the Metropolitan Water District of Southern California's Henry J. Mills Water Treatment Plant; serves the communities of El Sobrante, Eagle Valley, Temescal Canyon, Woodcrest, Lake Mathews, and March Air Reserve Base.

### MURRIETA SERVICE AREA

This system of Southern California's groundwater wells serves Western's Murrieta community with additional seasonal imported water from the Metropolitan Water District of Southern California's Robert F. Skinner Water Treatment Plant.

### RAINBOW SERVICE AREA

A small section of the Rainbow community is served by water supplied solely from the Colorado River via the Metropolitan Water District of Southern California's Robert F. Skinner Water Treatment Plant.

Water Stewards. Redefining Green.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien. Si desea más información, por favor contacte a Public Affairs en Western Municipal Water District, 951.789.5000 or en [water@wmwd.com](mailto:water@wmwd.com)



## Special Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants, can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. United States Environmental Protection Agency/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *cryptosporidium* and other microbial contaminants are available from the United States Environmental Protection Agency Safe Drinking Water Hotline at 800.426.4791.

*Cryptosporidium* is a microbial pathogen found in surface water throughout the U.S. Although filtration removes *cryptosporidium*, the most commonly used filtration methods cannot guarantee 100 percent removal. Ingestion of *cryptosporidium* may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea and abdominal cramps.

### Our water quality monitoring indicates no *cryptosporidium* organisms in the District's source and finished water.

Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may spread through means other than drinking water. The main Murrieta water source is from wells – *cryptosporidium* is a pathogen found only in surface water. Our water quality monitoring indicates no *cryptosporidium* organisms in the Skinner, as well as Mills, source and finished water.

Nitrate in drinking water at levels above 45 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of skin. Nitrate levels above 45 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant or you are pregnant, you should ask advice from your health care provider.



## DRINKING WATER HOTLINE

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants doesn't necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the United States Environmental Protection Agency Safe Drinking Water Hotline at 800.426.4791.

water-wise  
TIPS

Water your yard **ONLY** when it needs it and remember to turn off your automatic sprinklers when it rains or purchase a "smart" irrigation controller with a rain sensing, automatic shut-off feature. As our region's rainfall is only about 11.5 inches per year, it's that much more important to use water wisely...



### Special Exceptions (Kidney Dialysis/Aquariums)

Customers who have unique water quality needs and who use specialized home treatments, such as kidney dialysis machines, should make the necessary adjustments to remove chloramines. Like chlorine, chloramines are toxic to dialysis water. Customers who have fish tanks in their homes or businesses should also take precautions to remove chloramines prior to adding water to tanks. Effective treatments include using granular-activated carbon filters or using chemicals specifically designed to remove chloramines.

## Our Water Treatment Process

A key step in the treatment process is disinfection. Without disinfection, water would not be safe to drink.

Water delivered within the Riverside Service Area, which comes from the Metropolitan Water District's Henry J. Mills Water Treatment Plant, has been through a complex treatment process. Metropolitan Water District uses ozone as the primary disinfectant in its Mills Treatment Plant. Ozone treatment is a state-of-the-art water treatment technology in use in the U.S. today. It's also disinfected with chloramines. Chloramines, which are a combination of chlorine and ammonia, are a type of disinfectant that is used to prevent re-growth of potentially harmful bacteria in the water distribution system. They're approved by the Environmental Protection Agency as a disinfectant for drinking water and have been used safely for years.

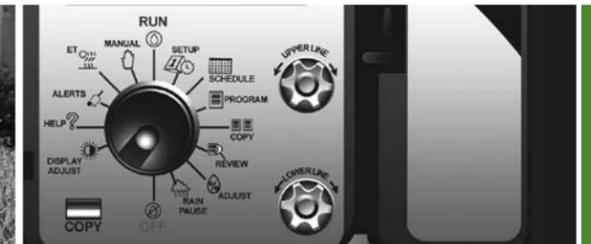
### Allowing drinking water to stand, boiling water, and chemicals to remove chlorine will NOT remove chloramines.

Chloraminated water is safe to drink because the digestive process neutralizes the chloramines before they enter the bloodstream. Chloraminated water is also safe for all other daily uses, such as bathing and cooking. In addition, using chloramines as the residual disinfectant results in lower overall levels of disinfection by-products such as trihalomethanes.

Within the Murrieta Service Area, the water delivered to the customer's tap is chlorinated at each well site before entering the distribution system. The additional seasonal imported water supplied from the Metropolitan Water District's Robert A. Skinner Water Treatment Plant is also chloraminated. Chloraminated water was delivered to the industrial/commercial business district of Madison Avenue from Kalmia south to Guava Street, and extending to Washington Street early in the year, and later throughout the entire system. The Rainbow Service Area source water has also been through a complex treatment process. It's then disinfected with chloramines.

## Source Water Assessment

A Source Water Assessment lists possible contaminants that might affect the quality of your water sources. The assessment of the Murrieta system was completed in July 2001 and identified no known immediate threats to the groundwater. In Dec. 2002, the Metropolitan Water District completed its source water assessment of its State Water Project supply and the Colorado River source. The Colorado River source is considered to be most vulnerable to urban/storm water runoff, increasing urbanization in the watershed and wastewater. State Water Project supplies are considered to be most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation and wastewater. Copies of complete assessments are available from Western Municipal Water District. Please contact the Public Affairs Office at 951.789.5000 or via email at [water@wmwd.com](mailto:water@wmwd.com) for further assistance.



## Lead and Copper Testing

The Lead and Copper Rule (LCR) was developed to protect public health by minimizing lead and copper levels in drinking water. The most common source of lead and copper in drinking water is corrosion of plumbing materials. Plumbing materials that can be made with lead and copper include pipes, solder, fixtures and faucets. The LCR established an action level of 15 ppb (parts per billion) for lead and 1.3 ppm (parts per million) for copper based on the 90th percentile level of tap water samples. This means no more than 10 percent of your samples can be above either action level. The Maximum Contaminant Level Goal (MCLG) for copper is 1.3 ppm; there is no MCLG for lead. The number of homes tested for the LCR in Riverside was 46; Murrieta, 23; and Rainbow, 5. Lead and copper are sampled on a state mandated three year testing cycle with sampling conducted at the customer's tap.

### Lead and Copper Testing (Inorganic) – regulated at customer's tap

	Lead (ppb)	Copper (ppm)
Action Level @ 90th Percentile	15	1.3
MCLG	NA	1.3
<b>Riverside</b>		
90th percentile value	ND	0.110
# over action level	0 of 46	0 of 46
<b>Murrieta</b>		
90th percentile value	ND	0.320
# over action level	0 of 23	0 of 23
<b>Rainbow</b>		
90th percentile value	3.3	0.260
# over action level	0 of 5	0 of 5



The most common source of lead and copper in drinking water is corrosion of plumbing materials.

Plumbing materials that can be made with lead and copper include pipes, solder, fixtures and faucets.

## Water Quality Table

**This water quality table provides data on the levels of constituents detected and how these compare to state standards.** If you have questions, suggestions or comments about the information contained in this 2008

Water Quality Report, or for additional copies, please contact Michele McKinney Underwood at 951.789.5039 or via email at [munderwood@wmwd.com](mailto:munderwood@wmwd.com).

### Measurement Terms

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste and appearance of drinking water.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

**Maximum Residual Disinfectant Level (MRDL):** The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.

**Notification Level (NL):** The level at which notification of the public water system's governing body is required. Prior to 2005, NL was known as the Action Level (AL).

**Primary Drinking Water Standards (PDWS):** MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

**Public Health Goal (PHG):** The level of a contaminant in drinking water below which there is no known or expected health risk. PHGs are set by the California Environmental Protection Agency.

**Regulatory Action Level (AL):** The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.



If you are a landlord or manage a multi-unit dwelling, please contact us to order as many additional copies of the report as you need to ensure your tenants receive this important information.

## Rebates

Are another way to help save water – by giving you back some of your purchasing dollars, you save money on the water-saving device and save on your subsequent water bills!

Visit [www.wmwd.com](http://www.wmwd.com) for a list of water saving rebates.



water-wise  
TIPS

*Pick California-friendly or native plants to plant in your landscape. You'll save water with these plants that have adapted to our warm, dry climate.*



## WATER QUALITY TABLE for CALENDAR YEAR 2007

REGULATED AT THE WATER SOURCE										
Primary Drinking Water Standards Mandatory Health Related Standards	Units of Measure	State/Fed MCL [MRDL]	PHG (MCLG) [MRDLG]	Riverside		Murrieta (a)		Rainbow		Major Source of Contaminant
Inorganic Chemicals				Average	Range	Average	Range	Average	Range	
Aluminum	ppb	1000	600	65	ND – 92	ND	ND	ND	ND-57	Residue from water treatment process; erosion of natural deposits
Arsenic	ppb	10	0.004	ND	ND – 2.3	5	ND – 13	ND	ND	Erosion of natural deposits
Barium	ppb	1000	2000	ND	ND	170	ND – 280	ND	ND	Discharge of oil drilling waste; erosion of natural deposits
Chromium (Total)	ppb	50	100	ND	ND	1.6	ND – 2.8	ND	ND	Discharge from steel/pulp mills; erosion of natural deposits
Fluoride (naturally-occurring)	ppm	2	1	ND	ND – 0.1	0.4	0.2 – 0.8	0.2	0.2 – 0.3	Erosion of natural deposits
Fluoride (treatment related)	ppm	(b)	1	—	0.5 – 0.8	—	0.5 – 0.9	—	0.5 – 0.9	Water additive for dental health
Nitrate (as NO3) (c)	ppm	45	45	3.1	ND – 4.8	1.1	ND – 5.3	ND	ND – 1.8	Industrial waste discharge
Perchlorate	ppb	6	6	ND	ND	ND	ND	ND	ND – 4.6	Industrial waste discharge
Selenium	ppb	50	(50)	ND	ND	1.59	ND	ND	ND	Discharge from petroleum refineries and mines
<b>Radiological</b>										
Gross Alpha	pCi/L	15	(0)	ND	ND	2.285	0.46 – 4.46	ND	ND – 5.5	Erosion of natural deposits
Radium 228	pCi/L	5	(0)	ND	ND	0.063	ND – 0.186	ND	ND	Erosion of natural deposits
Uranium	pCi/L	20	0.43	ND	ND	1.59	0.34 – 2.88	2.3	1.5 – 3.2	Erosion of natural deposits
<b>Secondary Standards - Aesthetic Standards</b>										
<b>Inorganic Chemicals</b>										
Chloride	ppm	500	N/A	79	56 – 98	95	65 – 110	92	84 – 96	Runoff/leaching from natural deposits
Hardness	ppm	NS	N/A	103	85 – 116	121	33 – 190	226	194 – 254	Erosion of natural deposits
Manganese	ppb	50	500	ND	ND	ND	ND – 20	ND	ND	Leaching from natural deposits
MBAS	ppm	0.5	N/A	ND	ND	ND	ND – 0.06	ND	ND	Municipal and industrial waste discharges
Sodium	ppm	NS	N/A	63	45 – 79	93	89 – 100	83	73 – 89	Erosion of natural deposits
Sulfate	ppm	500	N/A	53	34 – 69	55	50 – 61	169	134 – 202	Runoff/leaching from natural deposits
Total Dissolved Solids (TDS)	ppm	1000	N/A	291	223 – 330	462	270 – 540	495	438 – 551	Runoff/leaching from natural deposits
<b>Physical Properties</b>										
Color	Units	15	N/A	ND	ND – 3	ND (d)	ND – 5 (d)	ND	ND – 3	Naturally-occurring organic material
pH	Units	NS	N/A	8.4	8.3 – 8.6	—	7.2 – 9.5 (d)	8.1	8.1	A measure of how acidic or basic a solution is
Odor	TON	3	N/A	ND	ND – 1	ND (d)	ND (d)	ND	ND – 1	Naturally-occurring organic material
Specific Conductance	µS/cm	1600	N/A	528	390 – 616	713	510 – 830	841	755 – 927	Substance that forms ions when in water
Turbidity (e)	NTU	TT/5	N/A	ND	ND – 0.41	0.21 (d)	ND – 2.8 (d)	ND	ND – 0.57	Soil runoff
<b>Other Parameters Tested</b>										
Alkalinity	ppm	NS	N/A	72	65 – 78	144	82 – 190	98	91 – 106	Dissolved as water passes through limestone deposits
Calcium	ppm	NS	N/A	21	19 – 23	37	13 – 59	53	44 – 60	Dissolved as water passes through limestone deposits
Magnesium	ppm	NS	N/A	12	9 – 15	7	ND – 11	22	19 – 25	Naturally occurring
N-Nitrosodimethylamine (NDMA)	ppt	NS	N/A	—	ND – 7.1	—	ND	—	ND	Industrial processes, by-product of naturally-occurring drinking water chloramination
Potassium	ppm	NS	N/A	2.8	2.4 – 3.5	0.9	ND – 1.2	4.2	3.8 – 4.5	
<b>Unregulated Chemicals Requiring Monitoring</b>										
Boron	ppb	NS	1000 (NL)	150	110 – 180	190	110 – 260	140	130 – 160	Runoff/leaching from natural deposits; industrial wastes
Chromium VI	ppb	NS	N/A	0.21	0.09 – 0.39	ND	ND	0.12	0.07 – 0.18	Industrial waste discharge
Vanadium	ppb	NS	N/A	4.1	ND – 5.4	ND	ND	ND	ND	Erosion of natural deposits
<b>Regulated in the Distribution System</b>										
<b>Disinfection By-products</b>										
Total Trihalomethanes (TTHMs)	ppb	80	N/A	24	16 – 51	74 (d)	52 – 96 (d)	62.5	42 – 52	By-product of drinking water disinfection
Haloacetic Acids (HAAs)	ppb	60	N/A	13	ND – 19	18.4 (d)	10 – 27 (d)	27.5	16 – 22	By-product of drinking water disinfection
Bromate	ppb	10	(0)	7.9	3.8 – 15	NT	NT	NA	NA	By-product of drinking water ozonation
<b>Microbiological</b>										
Total Coliform	%	5.0	(0)	0	0	0	0	1	0 – 8	Naturally present in the environment
<b>Disinfectant</b>										
Chlorine	ppm	[4]	[4]	(g)	(g)	0.81 (d)	0.61 – 2.11 (d)	(g)	(g)	Drinking water disinfectant added for treatment
Chloramines	ppm	[4]	[4]	2.02	1.61 – 2.36	(g)	(g)	2.32	1.98 – 2.51	Drinking water disinfectant added for treatment

### Abbreviations

<b>MCL</b>	Maximum Contaminant Level	<b>PHG</b>	Public Health Goal
<b>MRDL</b>	Maximum Residual Disinfectant Level	<b>ppm</b>	parts per million
<b>MRDLG</b>	Maximum Residual Disinfectant Level Goal	<b>ppb</b>	parts per billion
<b>N/A</b>	Not Available	<b>ppt</b>	parts per trillion
<b>ND</b>	Not Detected	<b>pCi/L</b>	picoCuries per Liter
<b>NL</b>	Notification Level	<b>TON</b>	Threshold Odor Number
<b>NS</b>	No MCL Standard	<b>TT</b>	Treatment Technique
<b>NT</b>	Testing Not Performed	<b>Units</b>	A measure of the relative color or odor in the water
<b>NTU</b>	Nephelometric Turbidity Units; a measure of the suspended material in water	<b>µS/cm</b>	micromhos per centimeter
		<b>&lt;</b>	Less than
		<b>[ ]</b>	Brackets refer to MRDL or MRDLG

### Footnotes

- (a) The presented data for Murrieta reflects the characteristics of groundwater distributed to the service area. For a portion of the year, water was also imported from Metropolitan Water District's Robert F. Skinner Water Treatment Plant and used to replace groundwater in a portion and, later in the year, the entire system. The information for the Rainbow system, except as noted, reflects the quality of water obtained from the Skinner Water Treatment Plant. A further discussion of the source of water for Murrieta is on page 3.
- (b) Samples for the naturally-occurring fluoride were taken before fluoridation treatment began by Metropolitan Water District of Southern California (MWD). Fluoridation treatment of water supplies at treatment plants started in late 2007. MWD was in compliance with all provisions of the State's Fluoridation System Requirements, and maintains fluoride at an optimum level.
- (c) Nitrate can also be measured as Nitrogen with an MCL of 10 ppm.
- (d) Data from the distribution system reflecting the water quality of the groundwater/ imported water for Murrieta.
- (e) Turbidity is a measure of the cloudiness of the water. High turbidity can hinder the effectiveness of disinfectants. We monitor it because it is a good indicator of water quality and the effectiveness of treatment systems, where used.
- (f) Data were collected in 2006 and provide the most recent monitoring done in compliance with regulations.
- (g) Riverside and Rainbow water is tested for Total Chloramine Residual as it's disinfected with chloramines. Murrieta water is tested for Total Chlorine Residual as it's disinfected with chlorine.

## Pharmaceuticals & the Water Supply

First and foremost, Western, along with our water supplier – the Metropolitan Water District – is committed to protecting public health. In the news in 2008 was information about pharmaceuticals in drinking water. The presence of pharmaceuticals and other personal care products in water is not new. They likely have been present in water supply sources for as long as such products have been in use. What is new is that advances in laboratory technology have made it easier to detect and measure them at extremely low levels. These lab methods, however, are not widely available and are still experimental and under development.

The human health effects, if any, of drinking water with extremely low trace levels of pharmaceuticals are not known at this time. This is being studied but considerably more work is required to determine whether there are any impacts.

There is a critical need for further studies to determine whether pharmaceuticals and personal care products pose a risk. Research is also needed to identify the best way to address these substances if they are in fact a health risk.

Many water agencies look to the Environmental Protection Agency (EPA) to take a broad look at the larger life cycle issues associated with pharmaceuticals. There may be more effective ways to deal with these substances in the environment before they reach the drinking water treatment plant.

The EPA is working with research partners to develop improved testing methods and to determine which treatment technologies remove the contaminants most effectively.



**We also rely on you, our customers, to remember the toilet is not a trash can.**

People can dispose of their unused drugs and prescriptions in an environmentally responsible manner. You should also note that the levels of pharmaceuticals in drinking water is minute.

*For example, an individual would need to consume 48 Olympic-sized pools of water containing trace levels of ibuprofen to achieve the therapeutic adult dose of 1200 milligrams a day (mg/L).*

## Drinking Water Fluoridation

The State of California requires that water agencies serving more than 10,000 customers fluoridate their drinking water supplies if outside funding is provided. Western Municipal Water District has not received outside funding, therefore it does not add fluoride to its water supply. However, we do report a small amount of fluoride in our water supply, which occurs naturally due to erosion.

The Metropolitan Water District of Southern California (Metropolitan - the supplier of Western's imported water source that makes up just a small portion of the Murrieta Division supply) began fluoridating their drinking water supplies in November 2007. For more information, please call the Public Affairs Office at 951.789.5000 or send an email to [water@wmwd.com](mailto:water@wmwd.com). For more information on Metropolitan's fluoridation program, please call 213.217.5709 or visit [www.mwdh2o.com](http://www.mwdh2o.com).

*Este informe contiene información importante acerca de su agua potable. Si el informe no está disponible en su lengua materna, nosotros le alentamos a identificar alguien que lo entienda y puede traducir para usted.*

Drinking fluoridated water on a regular basis makes the use of fluoride tablets or drops unnecessary. However, the continued use of fluoride treatments by professional dental caregivers is recommended. Customers who do not wish to drink fluoridated water should know that most bottled waters contain levels of fluoride below the optimum range. Home water treatment units that use reverse osmosis membrane filtration will effectively remove fluoride. However, activated carbon filters will not. As always, customers should check for state certification for fluoride removal on any home water treatment unit being considered.

## Protecting Water Quality

Watersheds, specifically the Santa Margarita, San Jacinto and Santa Ana, are integral parts of our regional water supply system.

A watershed is an area of land that drains local runoff (and everything collected in that runoff) into lakes, streams and underground aquifers or basins. In an effort to limit groundwater contamination by keeping pesticides, herbicides, and irrigation runoff out of our waterways, Western encourages residents to do their part to protect watershed areas and our drinking water supply by properly disposing of pet waste, chemicals, and trash. While it helps to keep bugs and weeds out of your garden or landscape, using pesticides and herbicides can affect water quality. You can be a part of the solution of stopping pollutants from running off into the reservoirs. For more information on environmentally-sensitive pest removal practices, visit [www.ipm.ucdavis.edu](http://www.ipm.ucdavis.edu).

**Western encourages residents to do their part to protect watershed areas and our drinking water supply by properly disposing of pet waste, chemicals, and trash.**

**To protect our watersheds, please follow these simple Best Management Practices (BMPs):**

- \* Sweep-up or wet-mop. Do not use a water hose to clean your driveways, sidewalks, and gutters.
- \* Litter is not harmless. Sweep-up trash and debris near your home before it gets washed into the storm drain.
- \* Pick-up after your pets. Animal wastes contribute pathogens to streams and reservoirs.
- \* Use pesticides and herbicides wisely.
- \* Don't feed the birds at local reservoirs. Nature provides what they need in abundance.

For more information or to report illegal discharges into the storm drain system, please call the Cities & County of Riverside Storm Water/Clean Water Protection Program at 951.955.4954 or visit [www.floodcontrol.co.riverside.ca.us](http://www.floodcontrol.co.riverside.ca.us).



In support of watershed protection, Western is working with the Inland Empire Waterkeeper, a grassroots, non-profit environmental organization dedicated to protecting and enhancing the water quality of the Santa Ana River Watershed and other waterways of the Inland Empire. A "Protect Our Watersheds" signage program is underway and will be implemented in 2009.



For information on water conservation, log onto [www.wmwd.com/conservation.htm](http://www.wmwd.com/conservation.htm).



Contact the city or county for the best way to dispose of hazardous materials. You may not know it, but just **one quart of oil** can **contaminate 250,000 gallons of water**, effectively eliminating that much water from our water supply.

## Capital Improvements Program

Western's Capital Improvements Program (CIP) helps to maintain and improve the drinking water treatment and distribution system. Your District continues to invest in improving water quality, service and reliability within its service areas. The CIP helps address critical water infrastructure needs and meet new state and federal standards with maintenance, replacement and other improvements remain as ongoing needs at Western.

Western seeks grants, issues bonds and uses budgeted capital funds to finance projects as they are expensive and require long-term financing. Local property taxes, which are often threatened by the State budget deficit, help with the implementation of our CIP. Western will continue to explore financing options to minimize the impacts of the delays to the Capital Improvement Program.



### The Distribution System Rehabilitation and Replacement Program

is part of the District's on-going efforts to rehabilitate or replace existing facilities in order to minimize life-cycle costs of maintaining District assets. Pipelines that are experiencing repeated failures related to corrosion are included in this program.

- **The Jansen Road Easement Pipeline Replacement Project** replaced 300 feet of aging 14-inch diameter pipeline with new 24-inch diameter water pipeline.
- **The Capella Pipeline Replacement Project** replaced a 1,300 feet section of 10-inch diameter steel pipeline with 8-inch diameter PVC water pipeline.
- **The Iris Pipeline Replacement Project** replaced 850 feet of older 4-inch diameter pipeline with 8-inch diameter PVC pipeline.
- **The Hidden Cove & Sandy Creek Replacement Project** replaces approximately 1,000 feet of existing 8-inch diameter steel pipe with 8-inch diameter PVC pipe in Hidden Cove Drive and Sandy Creek Drive. The project is located in the Lake Hills Area of Riverside County.

Western's **Corrosion Control Program** includes proactive corrosion control measures such as projects to re-line water tanks and install cathodic protection on pipelines.

- **Lurin Tank re-lining Project** will remove the interior coating of the tank and place a fresh new coating on the tank in order to minimize corrosion of the tank walls. This project also effected repairs to the roof damaged by corrosion.
- **The Pipeline Cathodic Protection Program** has installed new corrosion protection systems at eight locations on pipelines where significant corrosion potential has been measured. This program has also replaced sacrificial anodes that have worn out as they reached the end of their life of successfully protecting pipelines from corrosion.

**New Facilities** were also constructed last year to meet increasing demands on the distribution system due to recent development.

- **The Markham Tank No. 2 Project** constructed a new welded steel tank that adds 6.7 million gallons of drinking water storage to Western's Riverside Service Area 1900 feet elevation pressure zone.
- **The Cole Avenue Pipeline Project** will construct approximately 4860 feet of 24-inch diameter steel pipe in Cole Avenue from Lurin Avenue to Nandina Avenue in Riverside. This will add transmission capacity to the 1900 feet elevation pressure zone served by the new Markham Tank.

- **The Rocky Bluff Pipeline Project** will construct approximately 2700 feet of new 12-inch diameter PVC pipeline in Rocky Bluff Road. The project will provide supplemental water supply into the 2450 feet elevation pressure zone of Western's South Added Facilities area located near Lake Mathews.
- **The Ben Clark Fire Supply Project** will add approximately 470 feet of 18" diameter and approximately 1,800 feet of 12" diameter pipeline to the potable water distribution system that feeds the Ben Clark Training Center in the former March Air Reserve Base area. This project will allow the distribution system to provide sufficient water flow for new Riverside County Sheriff and Fire Department training facilities.

**System Reliability and Redundancy Improvements** are being completed in order to better prepare our water distribution system for unplanned outages due to sudden pipe leaks or unusual events where demand outstrips available supplies.

- **The Emilita Pump and PRV Project** will install a replacement pump station and a dual valve (2-inch and 6-inch) pressure reduction valve (PRV) station to provide water to and from the 2116 feet pressure zone and the 1783 feet pressure zone during times of peak or emergency demand.

- **The Markham PRV Project** will install a dual valve (4-inch and 12-inch) pressure reduction valve (PRV) station to provide water from the 1900 feet pressure zone to the 1837 feet pressure zone during times of peak or emergency demand.
- **The Barton EMWD Interconnection Project** will provide up to 5 cubic feet per second of water flow to Eastern Municipal Water District in the event of an emergency.
- **Three Interconnection Projects** will provide water from Riverside Public Utilities to be used by Western in the event of an emergency. These projects include piping, valves and metering facilities.

**The Seismic Retrofit Program** will modify Western's tanks to be more resistant to damage in the event of an earthquake. These projects are being partially funded by grants from the Federal Emergency Management Agency administered by the State of California Office of Emergency Services. The projects will add a large flexible joint at the interface from the inlet/outlet pipeline(s) to the tank and make modifications to the other pipes that penetrate the tank walls. This year, Western is retrofitting four tanks: Markham No.1, Roosevelt, Lurin No.1 and La Sierra.

*Other means to enhance the water supply are highlighted as follows...*

### Santa Ana River Water Rights Application

Western and the San Bernardino Valley Municipal Water District jointly filed applications with the State Water Resources Control Board to divert up to a maximum of 200,000 acre-feet per year of water from the Santa Ana River. Seasonal and regulatory storage with the subsequent controlled release of floodwater stored behind Seven Oaks Dam provides, through the use and reuse of water in the Santa Ana River basin, additional supplies of water for use within the Western/Muni service areas and for use downstream by water users and public trust resources. As one of the largest water rights efforts currently under review in the United States, the Santa Ana River Water Rights Application project would capture water for beneficial use that would otherwise be lost in our service areas.

### Desalting Collaboration

Western is considering expanding groundwater desalters in both the Arlington and Chino Groundwater Basins. Integrating the desalters into the District's system will improve our water portfolio and provide additional supply reliability and operational flexibility as part of our Integrated Regional Water Management Plan. The District has studied the expansion of the Arlington Desalter to a capacity of up to 10,000 acre-feet per year, and is currently conducting a pilot test for innovative technology to remove nitrates from the groundwater. Western also received a \$5 million grant to continue working with the City of Ontario and Jurupa Community Services District to expand the Chino II Desalter to 20 million gallons a day.

### Riverside-Corona Feeder

Western's Riverside-Corona Feeder, a conjunctive-use project delivering water conserved in wet years in San Bernardino County groundwater basins to communities throughout western Riverside County in dry water years, will provide up to 40,000 acre-feet of water. This visionary project will manage groundwater levels by the construction of groundwater wells and pumping capacity to deliver the pumped groundwater supply to water users. It will include about 20 wells and 28 miles of pipeline. It would also serve as part of the solution to cleaning up groundwater basins by removing contaminants from about 20,000 acre-feet of water per year.

### Perris Valley Pipeline

The Perris Valley Pipeline, of which Western is a partnering agency, is a major water line that will provide substantial water reliability and quality benefits to a significant portion of western Riverside County. Construction began in September 2007 and, due to minor delays, is scheduled for completion in fall 2008. The Metropolitan Water District of Southern California, Western Municipal Water District and Eastern Municipal Water District are developing the \$110 million project jointly. When completed, the 96-inch pipeline that runs along Alessandro Blvd. in Riverside, will enhance the treated water delivery capacity in Eastern and Western's service areas by up to 150 million gallons per day.

## Watch out for Metal Theft

The number of metal thefts and incidents of vandalism to Western Municipal Water District's water delivery pipes and structures is dramatically increasing. Recently, Western paid \$80,000 for repairs and restoration of stolen or vandalized public property.

### You can help stop this wasteful crime by reporting suspicious activity or observed metal theft to:

- \* Western Municipal Water District at 951.789.5000
- \* Your local law enforcement at 951.787.7911
- \* Your Neighborhood Watch

Please also contact your local elected officials to support holding scrap dealers accountable for accepting stolen goods.



For every \$10 of stolen metal parts, the cost to you and Western is hundreds of dollars in labor, repair and water service interruption.

## Sharing the Responsibility of Water Security

Keeping our water supply safe and secure is a top priority for Western Municipal Water District.

Western operates with heightened awareness and security to safeguard our water sources, water treatment plants and water distribution system.

Western also relies on you, the community, to be our eyes and ears, by staying alert and reporting any suspicious activity around District facilities. Your safety is a priority, so please do not approach or confront strangers.

Please report any suspicious activities immediately to your local law enforcement agency and contact Western at 951.789.5110.

*Thank you for being part of our security team!*



Visit [www.wmwd.com/rebates.htm](http://www.wmwd.com/rebates.htm) for a complete list of current rebates available for commercial and residential customers.



*Replacing older water fixtures like toilets, clothes washers, spray heads and irrigation controllers with water efficient models will save you money and water. Western offers rebates, just check out our web site, [www.wmwd.com](http://www.wmwd.com), for details.*

# Dedicated to Managing Water

## Becoming Even Better Water Stewards

**Water use efficiency** has become the new water supply frontier of traditional water conservation efforts. Giving you the means to utilize each and every drop of water that comes into your homes or businesses is a priority for Western. The District is working diligently to lead the way to better water use efficiency within our 527-square mile district. It's about lifestyle changes, using water wisely, making good choices, and saving today what we may need tomorrow.

## FREE Classes & Money SAVING Rebates

More than half of all home water use, and a significant portion of water used in businesses, happens in the landscape. Western offers free "California Friendly Landscaping" classes, in partnership with the Metropolitan Water District for residential and professional landscapes. The one-day classes, which are generally sold out, cover topics such as garden design; plant palettes; soils and fertilizers; irrigation principles and sprinkler basics, troubleshooting, repair, controller programming and scheduling.

Rebates are another way to help save water – by giving you back some of your purchasing dollars, you save money on the water-saving device and save on your subsequent water bills! One excellent rebated item is the weather-based irrigation controller, an \$80 dollar rebate or more depending on the size of your property. Rather than hassling with constantly readjusting your irrigation system, consider installing a weather-based irrigation or "smart" controller. The District also offers rebates on other items such as high-efficiency clothes washers (\$110) and toilets (\$165), synthetic turf (30 cents a square foot) and rotating sprinkler nozzles (\$4 each).

## Reaching Out to Kids and Customers

Working to help kids and teachers understand the importance of water is a part of Western's daily regimen. Whether you're a teacher, parent or young adult...if you'd like information on how to utilize our free resources, call our Public Affairs Office at 951.789.5038. We have free classroom materials, grants and much more. Western also hosts a variety of unique events for our customers and regional residents – upcoming programs include Native Nights on the evening of August 28 at our water conservation garden. Plan on joining us and learning about California native plants while enjoying our garden in the evening atmosphere.





## Western's Water-wise Garden... Open Daily and Free

Twenty years ago, Western saw the need to help its customers, and regional residents, understand and embrace water-wise landscaping and created one of the first conservation gardens in the state of California – Landscapes Southern California Style<sup>SM</sup>. As landscape water accounts for more than half of the total home water use in western Riverside County, it's crucial for all of us to be efficient. It's equally as critical for Western to offer examples and choices that are not only water-wise, but attractive. Visit the garden, which is open daily from 10 a.m. to 4 p.m., to discover beautiful ways to be water efficient in your landscape.



Visit the garden from 10 a.m. to 4 p.m. daily.



## Public Input Welcome

Western's Board of Directors meetings are held the first and third Wednesdays at 9:30 a.m. at Western's headquarters, 450 E. Alessandro Blvd. in Riverside. Additionally, Western's Murrieta Citizen's Advisory Committee, whose purpose is to provide a local forum for open communication between the District and our customers, meets every other month on the fourth Tuesday evening at the Murrieta Office. Please refer to our website, [www.wmwd.com](http://www.wmwd.com), for meeting dates. The public is welcome to board and advisory committee meetings. Please check our web site, [www.wmwd.com](http://www.wmwd.com), for upcoming meeting dates. The public is welcome to board and advisory committee meetings.

## We Want to Hear From You!

This is a great opportunity to let us know about your experience with our services. If there are areas we could improve upon, we want to hear about it. We take pride in our work and aim to provide quality customer service in every aspect of our job. We value your comments about our services and we want to keep up the good work for each and every one of our customers, so please feel free to give us feedback. *Thanks for taking the time to send us your comments – email us at [water@wmwd.com](mailto:water@wmwd.com).*



In an effort to be environmentally-friendly, this report was printed on FSC (Forest Stewardship Council) certified paper made from ECF bleached pulp (elemental chlorine-free) and printed with soy-based inks.



THE CITY OF SAN DIEGO

# Letters of Support





## **THANK YOU FOR YOUR SUPPORT!**

Thank you for taking the time to submit a letter of support for our Watershed Sign Program. We appreciate your efforts to protect the water quality of our watersheds and other important source waters. Last year, Caltrans approved this sign for a pilot program in the San Diego district. Now we want to demonstrate a strong need to Caltrans for these signs and are asking for letters of support. Your letter will help this sign be available in all districts throughout California.

### Directions for submitting a letter of support:

- 1) Write a letter of support by using the attached sample letter templates or creating your own
- 2) Place letter on your own agency/organization letterhead
- 3) Send letters to:

Mr. John Fisher, Chariman, CTCDC  
C/O California Department of Transportation (Caltrans)  
Division of Traffic Operations  
1120 N Street, Mail Station 36  
Sacramento, CA 95814

Ms. Destree Lazo, Program Coordinator  
Watershed Sign Program  
c/o Collaborative Services  
427 C Street, Suite 200  
San Diego, CA 92101

## SAMPLE LETTER TEMPLATE

Date:

Ms. Destree Lazo, Program Coordinator  
Watershed Sign Program  
c/o Collaborative Services  
427 C Street, Suite 200  
San Diego, CA 92101

Subject: Letter of Support for City of San Diego Water Department  
Watershed Signage Program

Ms. Lazo:

The NAME OF ORGANIZATION is in support of the City of San Diego Water Department's Watershed Sign Program as a way to create opportunities to learn about the importance of watersheds and encourage community stewardship. We are excited about their collaboration with Caltrans and support the efforts of the new pilot sign program in the County of San Diego. Our hopes would be that these signs be adopted into the Caltrans' family of standard signs and be utilized throughout the region and state.

We support this program because it brings attention to the motoring public that they are entering a watershed where a drinking water reservoir or other important source water is located. Furthermore, the project would assist the region's water utilities in meeting their storm water pollution prevention goals and would supplement the U.S. Environmental Protection Agency's efforts to increase awareness and education of the importance of natural resources.

We also believe that this program will assist the NAME OF ORGANIZATION by helping promote improved water quality for San Diego and throughout California.

Sincerely,

Name, Title

## SAMPLE LETTER TEMPLATE

Date:

Mr. John Fisher, Chairman, CTCDC  
C/O California Department of Transportation (Caltrans)  
Division of Traffic Operations  
1120 N Street, Mail Station 36  
Sacramento, CA 95814

Subject: Letter of Support for City of San Diego Water Department  
Watershed Signage Program

Mr. Fisher:

The NAME OF ORGANIZATION is in support of the City of San Diego Water Department's Watershed Sign Program as a way to create opportunities to learn about the importance of watersheds and encourage community stewardship. We are excited about their collaboration with Caltrans and support the efforts of the new pilot sign program in the County of San Diego. Our hopes would be that these signs be adopted into the Caltrans' family of standard signs and be utilized throughout the region and state.

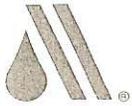
We support this program because it brings attention to the motoring public that they are entering a watershed where a drinking water reservoir or other important source water is located. Furthermore, the project would assist the region's water utilities in meeting their storm water pollution prevention goals and would supplement the U.S. Environmental Protection Agency's efforts to increase awareness and education of the importance of natural resources.

We also believe that this program will assist the NAME OF ORGANIZATION by helping promote improved water quality for San Diego and throughout California.

Sincerely,

Name, Title

cc: Mr. Gerry Meis and Mr. Devinder Singh, Caltrans



**American Water Works  
Association**

6666 West Quincy Avenue  
Denver, CO 80235-3098  
T 303.794.7711  
www.awwa.org

The Authoritative Resource for Safe Drinking Water<sup>SM</sup>

June 30, 2005

Mr. John Fisher, Chairman, CTCDC  
C/O California Department of Transportation  
Division of Traffic Operations  
1120 N Street, Mail Station 36  
Sacramento, CA 95814

*Advocacy  
Communications  
Conferences  
Education and Training  
Science and Technology  
Sections*

Subject: Letter of Support for City of San Diego Water Department  
Watershed Boundary Signage Program

Dear Mr. Fisher:

The American Water Works Association (AWWA) strongly supports the City of San Diego Water Department's efforts to develop a watershed boundary signage program. This type of program encourages good stewardship of watersheds and provides many opportunities to educate the community on the value of precious water sources. We also support San Diego's intention to collaborate with Caltrans to create a design template and sign specifications for watershed boundary signage that could be utilized and implemented throughout the region.

AWWA promotes sound water resources planning and management that provides for an adequate supply of high-quality water for people. San Diego's program supports that objective in many ways. It will alert motorists entering a watershed where a drinking water reservoir is located. Furthermore, the project will assist the region's water utilities in meeting their storm water pollution prevention goals and will supplement the U.S. Environmental Protection Agency's efforts to increase awareness about the importance of natural resources.

AWWA commends the City of San Diego Water Department for its efforts to protect its watersheds and keep its citizens informed.

Sincerely,

Jack Hoffbuhr  
Executive Director

cc: Mr. Gerry Meis and Mr. Devinder Singh, Caltrans

# California Native Plant Society

Mr. John Fisher, Chairman, CTCDC  
C/O California Department of Transportation  
Division of Traffic Operations  
1120 N Street, Mail Station 36  
Sacramento, CA 95814

Subject: Support for City of San Diego Water Department Watershed Boundary Signs

Dear Mr. Fisher:

The California Native Plant Society is a statewide non-profit organization of amateurs and professionals with a common interest in California's native plants. The Society seeks to increase understanding of California's native flora and to preserve this rich resource for future generations.

We strongly support the City of San Diego Water Department's goals for a watershed boundary signage program. This will help create a better understanding among citizens about watersheds and a better realization of the fact that the water that runs down our streets has downstream impacts.

Non-native invasive plants that travel downstream is one example of a watershed-related impact to native plants. A specific example of this is *Arundo donax* (Giant Reed); this plant travels within a watershed by movement of bits of its rhizome downstream from horticultural plantings. Many dollars have been spent to eradicate this pest in San Diego. If citizen's had a better understanding about how their landscaping choices can affect downstream habitat, they would be able to make better choices.

We support the Departments collaboration with Caltrans to create a design template and sign specifications for watershed boundary signage that could be utilized and implemented throughout the region.

Respectfully



Carrie Schneider  
San Diego Chapter of the California Native Plant Society  
P O Box 121390  
San Diego CA 92112-1390

[info@cnpssd.org](mailto:info@cnpssd.org)

[www.cnpssd.org](http://www.cnpssd.org)



*Dedicated to the preservation of California native flora*

# California State Senate

SENATOR  
**CHRISTINE KEHOE**  
THIRTY-NINTH SENATE DISTRICT



CAPITOL OFFICE:  
STATE CAPITOL  
SACRAMENTO, CA 95814  
PH: (916) 651-4039  
FAX: (916) 327-2188

DISTRICT OFFICE:  
2445 5TH AVENUE, SUITE 200  
SAN DIEGO, CA 92101  
PH: (619) 645-3133  
FAX: (619) 645-3144

March 16, 2007

Destree Lazo, Program Coordinator  
Watershed Sign Program  
c/o Collaborative Services  
427 C Street, Suite 200  
San Diego, CA 92101

Subject: Letter of Support for Watershed Signage Program  
of the City of San Diego Water Department

Dear Ms. Lazo,

I am pleased to see that the Water Department for the City of San Diego has initiated a Watershed Sign Program that encourages the public to learn about the location and importance of reservoirs and watersheds within the San Diego region. Raising public awareness of where reservoirs and other important water sources are located will supplement the U.S. Environmental Protection Agency's efforts to increase awareness of and education about the importance of our natural resources. Most importantly, the watershed signage project will assist the region's jurisdictions in meeting their stormwater pollution prevention goals.

Every effort made by the public to reduce stormwater runoff into our reservoirs, rivers, lakes, streams, bays and the ocean improves our water quality. I am especially pleased that you are working with the California Department of Transportation (Caltrans) and hope that ultimately the watershed signs will become part of Caltrans' set of standard signs and ultimately be installed throughout the state to designate where reservoirs and watersheds are located.

Water quality and being able to enjoy our natural resources, including our rivers, beaches and bays without having to worry about stormwater runoff and potential health effects begins with the public understanding that what happens upstream affects downstream activities. Letting the public know the locations of our reservoirs and watersheds is the first step in protecting them.

Sincerely,

A handwritten signature in blue ink that reads "Christine Kehoe".

CHRISTINE KEHOE  
Senator, 39th District

CK:ds

#### STANDING COMMITTEES:

- LOCAL GOVERNMENT, CHAIR
- BUDGET AND FISCAL REVIEW
- ENERGY, UTILITIES AND COMMUNICATIONS
- NATURAL RESOURCES AND WATER
- TRANSPORTATION AND HOUSING

#### JOINT COMMITTEES:

- HOMELAND SECURITY AND EMERGENCY SERVICES, CHAIR
- ARTS

#### SELECT COMMITTEES:

- DEFENSE AND AEROSPACE INDUSTRY
- DEVELOPMENTAL DISABILITIES AND MENTAL HEALTH

#### MEMBER:

- CALIFORNIA CULTURAL AND HISTORICAL ENDOWMENT
- CALIFORNIA LEGISLATIVE LESBIAN, GAY, BISEXUAL AND TRANSGENDER CAUCUS
- SEA GRANT ADVISORY PANEL



Date: June 28, 2005

Subject: Letter of Support for City of San Diego Water Department  
Watershed Boundary Signage Program

To Whom It May Concern:

California Watershed Network is in support of the City of San Diego Water Department's efforts to develop a watershed boundary signage program as a way to create opportunities to learn about the importance of watersheds and encourage community stewardship. We support their collaboration with Caltrans to create a design template and sign specifications for watershed boundary signage that could be utilized and implemented throughout the region.

We support this program because it brings attention to the motoring public that they are entering a watershed where a drinking water reservoir is located. Furthermore, the project would assist the region's water utilities in meeting their storm water pollution prevention goals and would supplement the Environmental Protection Agency's efforts to increase awareness and education of the importance of natural resources.

We also believe that this program will assist the California Watershed Network by helping promote improved water quality for the San Diego region. And lastly, it will serve as a model for the rest of the State.

Sincerely,

Mary Lee Knecht  
Vice President  
California Watershed Network

1714 3<sup>rd</sup> Avenue  
Sacramento, CA 95818  
916.446.6440  
[mlknecht@comcast.net](mailto:mlknecht@comcast.net)



## Citizens Coordinate for Century 3

5252 Balboa Ave., # 207, San Diego, CA 92117-7005 619.232.7196

PRESIDENT  
Bruce H. Warren

July 14, 2005

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Mr. John Fisher, Chairman, CTCDC  
% California Department of Transportation  
Division of Traffic Operations  
1120 N Street, Mail Station 36  
Sacramento, CA 95814  
Subject: Letter of Support for City of San Diego Water  
Department Watershed Boundary Signage Program

Dear Mr. Fisher:

Citizen Coordinate for Century 3 is in support of the City of San Diego Water Department's efforts to develop a watershed boundary signage program as a way to create opportunities to learn about the importance of watersheds and encourage community stewardship. We support their collaboration with Caltrans to create a design template and sign specifications for watershed boundary signage that could be utilized and implemented throughout the region.

We support this program because it brings attention to the motoring public that they are entering a watershed where a drinking water reservoir is located. Furthermore, the project would assist the region's water utilities in meeting their storm water pollution prevention goals and would supplement the Environmental Protection Agency's efforts to increase awareness and education of the importance of natural resources.

We also believe that this program will assist Citizens Coordinate for Century 3 by helping promote improved water quality for the San Diego region.

Sincerely

Bruce H. Warren  
President

cc: Mr. Gerry Meis and Mr. Devinder Singh, Caltrans

BHW:PSM



## ***Floodplain Management Association***

***"TO PROMOTE THE COMMON INTEREST IN REDUCING FLOOD LOSSES AND TO ENCOURAGE  
THE PROTECTION AND ENHANCEMENT OF NATURAL FLOODPLAIN VALUES"***

June 18, 2005

### **Board of Directors**

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*California Department of  
Water Resources*

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Resources*

**Sterling Yong** -  
Ex-Officio Director  
*State of Hawaii  
DNL*

**Iovanka Todt**  
Executive Director  
*Floodplain Management  
Association*

Mr. John Fisher, Chairman, CTCDC  
C/O California Department of Transportation  
Division of Traffic Operations  
1120 N Street, Mail Station 36  
Sacramento, CA 95814

Subject: Letter of Support for City of San Diego Water Department  
Watershed Boundary Signage Program

Mr. Fisher:

The Floodplain Management Association (FMA) is in support of the City of San Diego Water Department's efforts to develop a watershed boundary signage program as a way to create opportunities to learn about the importance of watersheds and encourage community stewardship. We support their collaboration with Caltrans to create a design template and sign specifications for watershed boundary signage that could be utilized and implemented throughout the region.

FMA is dedicated to promoting the common interest in reducing flood losses and to encouraging the protection and enhancement of natural floodplain values. We support this program because it brings attention to the motoring public that they are entering a watershed where a drinking water reservoir is located. Furthermore, the project would assist the region's water utilities in meeting their storm water pollution prevention goals and would supplement the Environmental Protection Agency's efforts to increase awareness and education of the importance of natural resources.

Please feel free to contact me if I can be of any assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Iovanka Todt", written over a light-colored background.

Iovanka Todt, Executive Director

cc: Mr. Gerry Meis and Mr. Devinder Singh, Caltrans



**MWD**

**METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA**

**Executive Office**

June 10, 2005

Mr. John Fisher, Chairman  
Caltrans Traffic Control Devices Committee  
California Department of Transportation  
Division of Traffic Operations  
1120 N Street, Mail Station 36  
Sacramento, CA 95814

Dear Mr. Fisher:

**Support Letter for San Diego Water Department: Watershed Boundary Signage Program**

The Metropolitan Water District of Southern California supports the City of San Diego Water Department's efforts to develop a watershed boundary signage program. This program creates opportunities to learn about the importance of watersheds and encourages community stewardship. We support this collaboration with Caltrans to create a design template and sign specifications for a watershed boundary signage to be readily utilized and implemented throughout our six-county service area.

We back this program because it provides an eye-catching graphic to casual motorists that they are entering a watershed with a groundwater basin, nearby river, or drinking water reservoir. This program will assist the region's water utilities in meeting storm water pollution prevention goals and would supplement the Environmental Protection Agency's efforts to increase awareness and education of the importance of natural resources.

We also believe this program will assist the San Diego County Water Authority by helping promote improved water quality for the San Diego region. Once approved, the watershed icon will serve as a public relations model for other California communities.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Bobbi A. Becker', with a long horizontal flourish extending to the right.

Bobbi A. Becker  
Interim Vice President  
External Affairs

cc: Mr. Gerry Meis, Caltrans

**MISSION VALLEY COMMUNITY COUNCIL**

**P.O. Box 880944  
SAN DIEGO, CA 92108**

Tel: 619-281-3009

Fax: 619-281-0833

June 18, 2005

Tedi L. Jackson  
Supervising Public Information Officer  
Water Department, Operations Division  
2797 Camino Chollas, MS 43  
San Diego, CA 92105

At the regular meeting of the San Diego River Park Foundation on Friday, June 17<sup>th</sup>, A tentative proposal for installation of San Diego River Watershed signs was presented. Representing the Mission Valley Community Council, I believe that this idea is not only appropriate but will help to make people aware of the river, the watershed and the importance of water conservation for the community as a whole. I urge the Department to give serious consideration to this proposal.

August 25, 2008

Mr. John Fisher, Chairman, CTCDC  
C/O California Department of Transportation  
Division of Traffic Operations  
1120 N Street, Mail Station 36  
Sacramento, CA 95814

Subject: Letter of Support for City of San Diego Water Department  
Watershed Boundary Signage Program

Mr. Fisher:

The Ramona Chamber of Commerce is in support of the City of San Diego Water Department's efforts to develop a watershed boundary signage program as a way to create opportunities to learn about the importance of watersheds and encourage community stewardship. We support their collaboration with Caltrans to create a design template and sign specifications for watershed boundary signage that could be utilized and implemented throughout the region.

We support this program because it brings attention to the motoring public that they are entering a watershed where a drinking water reservoir is located. Furthermore, the project would assist the region's water utilities in meeting their storm water pollution prevention goals and would supplement the Environmental Protection Agency's efforts to increase awareness and education of the importance of natural resources.

We also believe that this program will assist the Ramona Chamber by helping promote improved water quality for the our region.

Sincerely,

Chuck DeMund  
Chair, Economic Development Committee

cc: Mr. Gerry Meis and Mr. Devinder Singh, Caltrans



# California Regional Water Quality Control Board San Diego Region



Alan C. Lloyd, Ph.D.  
Agency Secretary

Over 50 Years Serving San Diego, Orange, and Riverside Counties  
Recipient of the 2004 Environmental Award for Outstanding Achievement from USEPA

Arnold Schwarzenegger  
Governor

9174 Sky Park Court, Suite 100, San Diego, California 92123-4340  
(858) 467-2952 • Fax (858) 571-6972  
<http://www.waterboards.ca.gov/sandiego>

November 2, 2005

Mr. John Fisher  
Chairman, California Traffic Control Devices Committee  
c/o California Department of Transportation  
Division of Traffic Operations  
1120 N Street, Mail Station 36  
Sacramento, CA 95814

Dear Mr. Fisher:

**SUBJECT: CITY OF SAN DIEGO WATER DEPARTMENT  
PROPOSED WATERSHED SIGNAGE PROGRAM**

The San Diego Regional Water Quality Control Board strongly supports development and implementation of a statewide watershed and waterway signage program. We believe such a program would do much to encourage and increase awareness and stewardship of watersheds, waterways, natural resources, beneficial uses of water, and water quality in California. We understand that the Department of Transportation and the Department of Forestry and Fire Protection have implemented a watershed signage program in parts of northern California.

We understand that a watershed signage program proposed by City of San Diego Water Department is on the November 17, 2005 agenda of the California Traffic Control Devices Committee. We strongly support this proposed program as an important step towards implementation of statewide watershed and waterway signage program.

If you have any questions, please contact Mr. Bruce Posthumus at 858-467-2964 or [bposthumus@waterboards.ca.gov](mailto:bposthumus@waterboards.ca.gov).

Respectfully,

JOHN H. ROBERTUS  
Executive Officer  
San Diego Regional Water Quality Control Board

cc: Mr. Gerry Meis, Department of Transportation  
Mr. Devinder Singh, Department of Transportation  
Ms. Tedi L. Jackson, City of San Diego Water Department

*California Environmental Protection Agency*



## REDWOOD REGIONAL WATERSHED CENTER

Education • Interpretation • Research • Ecotourism • Coordination  
1686 Old Arcata Road, Bayside, CA 95524

**Date: February 17, 2006**

**Mr. John Fisher, Chairman, CTCDC**  
C/O California Department of Transportation  
Division of Traffic Operations  
1120 N Street, Mail Station 36  
Sacramento, CA 95814

**Dr. Betsy Watson, Chair**  
RRWC Board President  
HSU Department of Sociology

**Donna Hufford**  
RRWC Board Secretary  
Orick Eco Dev Corp

**Dan Hauser**  
RRWC Board Treasurer

**Dr. Terry Roelofs**  
RRWC Board of Directors  
HSU Department of Fisheries

**Mark Wheetley**  
RRWC Board of Directors  
Advisor

**Sungnome Madrone**  
Director, NR Division, RCAA

**Rep Mike Thompson**  
US Congress

**Senator Wesley Chesbro**  
State of California

**Assembly Patty Berg**  
State of California

**Supervisor Jill Geist**  
Humboldt County

**Dr. Rick Botzler**  
HSU Department of Wildlife

**Dean Susan Higgins**  
HSU College of Professional Studies

**Dean Donna Schafer**  
HSU Research and Grad Studies

**Supt. Bill Pierce**  
Redwood National and State Parks

**Subject: Letter of Support for City of San Diego Water  
Department Watershed Boundary Sign Pilot Program**

**Mr. Fisher:**

The REDWOOD REGIONAL WATERSHED CENTER supports the City of San Diego Water Department's watershed boundary sign pilot program. This program will provide opportunity to educate our citizens about the importance of watersheds, which will encourage community stewardship leading to enhancement of the quality of life in our region. We look forward to partnering with San Diego and other organizations throughout the state to create a unifying program. San Diego's initial opportunity will provide a familiar message that will promote healthy and sustainable communities within watersheds and regions across our state.

One of the program benefits will be to help people begin to visualize the land infrastructure, water sources and flows and will eventually help people understand how they can take simple actions to prevent water pollution, thus improving the quality of downstream bays, estuaries and beaches.

This project supplements the Environmental Protection Agency's efforts to increase awareness and education of the importance of natural resources.

Therefore, the REDWOOD REGIONAL WATERSHED CENTER supports this program which will help to promote improved water quality throughout California.

**Sincerely,**  
**Dr. Betsy Watson, President**  
**REDWOOD REGIONAL WATERSHED CENTER**

cc: Mr. Gerry Meis and Mr. Devinder Singh, Caltrans

Paula Fitzgerald Yoon, Project Director  
707-822-3577  
pfooon@sprintmail.com



401 B Street, Suite 800  
 San Diego, CA 92101-4231  
 (619) 699-1900  
 Fax (619) 699-1905  
 www.sandag.org

July 13, 2005

File Number 3000200

Mr. John Fisher, Chairman, CTCDC  
 C/O California Department of Transportation  
 Division of Traffic Operations  
 1120 N Street, Mail Station 36  
 Sacramento, CA 95814

Dear Mr. Fisher:

MEMBER AGENCIES

- Cities of
- Carlsbad
- Chula Vista
- Coronado
- Del Mar
- El Cajon
- Encinitas
- Escondido
- Imperial Beach
- La Mesa
- Lemon Grove
- National City
- Oceanside
- Poway
- San Diego
- San Marcos
- Santee
- Solana Beach
- Vista
- and
- County of San Diego

The San Diego Association of Governments (SANDAG) supports the City of San Diego Water Department's pilot watershed boundary sign program. This program is a positive way to create opportunities for the public to learn about the importance of watersheds and encourage community stewardship of watershed resources. We also support the City of San Diego's collaboration with Caltrans in creating a design template for watershed boundary signage, which can be utilized and implemented throughout the region.

This pilot program will place six signs along state highways where they cross into the watersheds of the San Diego River or the San Dieguito River, both in the metropolitan San Diego area. The signs will alert motorists to the fact that they are entering a watershed where a drinking water reservoir is located.

This program is a benefit to the region because it raises public awareness of watershed issues. The project would assist the region's water utilities in meeting their storm water pollution prevention goals and would supplement the Environmental Protection Agency's efforts to increase awareness and education of the importance of natural resources.

Additionally, this program will assist SANDAG by helping promote improved water quality for the San Diego region, which was one of the objectives outlined in SANDAG's Regional Comprehensive Plan, adopted in July 2004.

We appreciate the City of San Diego's initiative in creating this pilot program and look forward to viewing the signs as we drive our region's highways. Please contact Shelby Tucker at 619-699-1916 or stu@sandag.org if you have any questions or comments regarding SANDAG's support of this project.

Sincerely,

BOB LEITER  
 Director, Land Use and Transportation Planning

BL/ST/mh

cc: Mr. Gerry Meis, Caltrans  
 Mr. Devinder Singh, Caltrans

ADVISORY MEMBERS

- Imperial County
- California Department of Transportation
- Metropolitan Transit System
- North San Diego County Transit Development Board
- United States Department of Defense
- San Diego Unified Port District
- San Diego County Water Authority
- Mexico



332 S. Juniper Street, Suite 110  
Escondido, CA 92025  
Phone: 760-745-2061 Fax: 760-745-3210  
E-mail: [inquiries@rcdsandiego.org](mailto:inquiries@rcdsandiego.org)  
Website: [www.rcdsandiego.org](http://www.rcdsandiego.org)

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March 7, 2007

Ms. Destree Lazo, Program Coordinator  
Watershed Sign Program  
c/o Collaborative Services  
427 C Street, Suite 200  
San Diego, CA 92101

Subject: Letter of Support for City of San Diego Water Department Watershed Signage Program

Ms. Lazo:

The Resource Conservation District of Greater San Diego County is in support of the City of San Diego Water Department's Watershed Sign Program as a way to create opportunities to learn about the importance of watersheds and encourage community stewardship. We are excited about their collaboration with Caltrans and support the efforts of the new pilot sign program in the County of San Diego. Our hopes would be that these signs be adopted into the Caltrans' family of standard signs and be utilized throughout the region and state.

We support this program because it brings attention to the motoring public that they are entering a watershed where a drinking water reservoir or other important source water is located. Furthermore, the project would assist the region's water utilities in meeting their storm water pollution prevention goals and would supplement the U.S. Environmental Protection Agency's efforts to increase awareness and education of the importance of natural resources.

We also believe that this program will assist the Resource Conservation District of Greater San Diego County by helping promote improved water quality for San Diego and throughout California.

Sincerely,

A handwritten signature in blue ink that reads "Krista Mendelsohn".

Krista Mendelsohn, Education Coordinator

June 20, 2005

Mr. John Fisher, Chairman, CTCDC  
C/O California Department of Transportation  
Division of Traffic Operations  
1120 N Street, Mail Station 36  
Sacramento, CA 95814

Subject: Letter of Support for City of San Diego Water Department  
Watershed Boundary Signage Program

Mr. Fisher:

The San Diego Archaeological Center is in support of the City of San Diego Water Department's efforts to develop a watershed boundary signage program as a way to create opportunities to learn about the importance of watersheds and encourage community stewardship. We support their collaboration with Caltrans to create a design template and sign specifications for watershed boundary signage that could be utilized and implemented throughout the region.

We support this program because it brings attention to the motoring public that they are entering a watershed where a drinking water reservoir is located. Furthermore, the project would assist the region's water utilities in meeting their storm water pollution prevention goals and would supplement the Environmental Protection Agency's efforts to increase awareness and education of the importance of natural resources.

We also believe that this program will assist the people of San Diego by helping promote improved water quality for the San Diego region.

Sincerely,



Cindy Stankowski  
Director

cc: Mr. Gerry Meis and Mr. Devinder Singh, Caltrans



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## SAN DIEGO AUDUBON SOCIETY

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4891 Pacific Highway, Suite 112 • San Diego, CA 92110 • 619/682-7200 • Fax 619/682-7212

September 27, 2005

Mr. John Fisher, Chairman, CTCDC  
C/O California Department of Transportation  
Division of Traffic Operations  
1120 N Street, Mail Station 36  
Sacramento, CA 95814

Subject: Endorsement of the City of San Diego's Watershed Boundary Sign Program

Dear Mr. Fisher:

The San Diego Audubon Society would like to convey to you its support for the City of San Diego Water Department's watershed boundary sign program.

The Society has worked on habitat conservation programs in many of the regions watersheds, and feels that improved public knowledge of watersheds and the functions they serve will aid in these efforts. This project would also have the potential to assist the region's water management agencies in their efforts to reduce storm water pollution.

The first step is to acquaint the public as to where our watersheds are located, and the proposed signage program will help accomplish this. We would encourage Caltrans to create a standardized and attractive design for these signs so that they will be easily recognized by the driving public throughout the region.

Thank you for your help in making this promising program a reality.

Sincerely,

Philip R. Pryde  
Member, Board of Directors and Past President, San Diego Audubon Society

cc: Mr. Gerry Meis and Mr. Devinder Singh, Caltrans



# San Diego County Water Authority

4677 Overland Avenue • San Diego, California 92123-1233  
(858) 522-6600 FAX (858) 522-6568 www.sdcwa.org

February 2, 2004

Metropolitan Water District of Southern California  
External Affairs  
Community Partnering Program  
P.O. Box 54153  
Los Angeles, CA 90012

Subject: Letter of Endorsement for City of San Diego Water Department  
Community Partnering Program – Watershed Boundary Signage Proposal

To Whom It May Concern:

The San Diego County Water Authority is in support of the City of San Diego Water Department’s program to erect watershed boundary signage around the watersheds where the City’s drinking water reservoirs are located.

We endorse the program because it brings attention to the motoring public that they are entering a watershed where a drinking water reservoir is located. Further, the project should assist the region’s water utilities in meeting their storm water pollution prevention goals by educating the motoring public about the importance of the natural resources located all around them, especially water.

We also believe that this program will assist the San Diego County Water Authority by helping promote improved water quality for the San Diego Region.

Sincerely,

Donna Nenow  
Public Affairs Supervisor  
Regional Programs

**CITIES**  
• Del Mar • Escondido • National City  
• Oceanside • Poway • San Diego

**IRRIGATION DISTRICTS**  
• Santa Fe • South Bay  
• Vista

**MEMBER AGENCIES**

**WATER DISTRICTS**  
• Helix • Otay  
• San Dieguito  
• Vallecitos

**MUNICIPAL WATER DISTRICTS**  
• Carlsbad • Ramona  
• Olivenhain • Rincon del Diablo  
• Padre Dam • Valley Center  
• Rainbow • Yuima

**COUNTY**  
• San Diego  
(ex officio)

**PUBLIC UTILITY DISTRICT**  
• Fallbrook

**FEDERAL AGENCY**  
• Camp Pendleton Marine Corps Base

# San Diego River Conservancy

9174 Sky Park Court, Suite 100, San Diego, California 92123-4340  
(858) 467-2972 • Fax (858) 571-6972  
<http://resources.ca.gov/sdrc.html>



**Arnold Schwarzenegger**  
Governor

**Mike Chrisman**  
Secretary, Resources Agency

**Dick Murphy, Chair**  
Mayor, City of San Diego

**Donna Frye, Vice-Chair**  
Councilmember, City of San Diego

July 11, 2005

Mr. John Fisher, Chairman, CTCDC  
C/O California Department of Transportation  
Division of Traffic Operations  
1120 N Street, Mail Station 36  
Sacramento, CA 95814

Subject: Letter of Support for City of San Diego Water Department  
Watershed Boundary Signage Program

Dear Mr. Fisher,

The San Diego River Conservancy is in support of the City of San Diego Water Department's efforts to develop a watershed boundary signage program as a way to create opportunities to learn about the importance of watersheds and encourage community stewardship. We support their collaboration with Caltrans to create a design template and sign specifications for watershed boundary signage that could be utilized and implemented throughout the region.

We support this program because it brings attention to the motoring public that they are entering a watershed where a drinking water reservoir is located. Furthermore, the project would assist the region's water utilities in meeting their storm water pollution prevention goals and would supplement the Environmental Protection Agency's efforts to increase awareness and education of the importance of natural resources.

We also believe that this program will assist the San Diego River Conservancy by helping promote improved water quality for the San Diego region.

I strongly encourage your support of the Watershed Signage Pilot Program for the San Diego River. If you have any additional questions, please do not hesitate to contact me directly.

Sincerely,

A handwritten signature in cursive script that reads "Deborah S. Jayne".

Deborah S. Jayne  
Executive Officer

Cc: Tedi Jackson (San Diego Water Department)  
Jeffrey Pasek (San Diego Water Department)

# The San Diego River Park Foundation

## Board of Directors:

Jo Ann Anderson  
Michael Beck  
Kurt Benirschke, M.D.  
Charles V. Berwanger  
Janie DeCelles  
Sam Duran  
Joan Embery  
James Hubbell  
Suzanne Lawrence  
James Peugh  
Duane Pillsbury  
M. Lea Rudee, Ph.D.  
Tom Sudberry

June 15, 2005

Mr. John Fisher, Chairman, CTCDC  
C/O California Department of Transportation  
Division of Traffic Operations  
1120 N Street, Mail Station 36  
Sacramento, CA 95814

**Subject: Letter of Support for City of San Diego Water Department  
Watershed Boundary Signage Program**

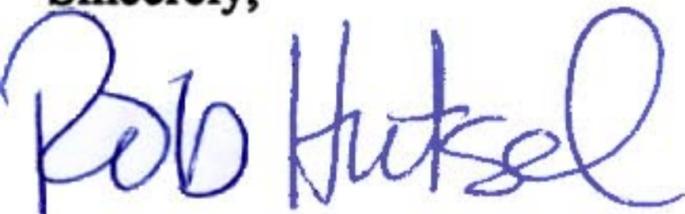
Dear Mr. Fisher:

The San Diego River Park Foundation is in support of the City of San Diego Water Department's efforts to develop a watershed boundary signage program as a way to create opportunities to learn about the importance of watersheds and encourage community stewardship. We have been working with them on this project and support their collaboration with Caltrans to create a design template and sign specifications for watershed boundary signage that could be utilized and implemented throughout the region.

We support this program because it helps bring important attention to the motoring public about the watersheds they are driving in. It also serves as a reminder that drinking water reservoirs are located in these watersheds.

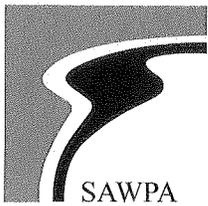
We have been involved with placing signs on local streets regarding the San Diego River and know firsthand the value of this relatively minor action. We hope Caltrans can partner not only with the City of San Diego but also with the many community and other non-governmental organizations that are supporting this effort.

Sincerely,



Rob Hutsel  
Executive Director

cc: Mr. Gerry Meis and Mr. Devinder Singh, Caltrans  
Bob Collins, City of San Diego Water Department



# Santa Ana Watershed Project Authority

September 7, 2007

Ron Sullivan  
Commission  
Chair

Ms. Destree Lazo, Program Coordinator  
Watershed Sign Program  
c/o Collaborative Services  
427 C Street, Suite 200  
San Diego, CA 92101

Celeste Cantú  
General  
Manager

Dear Ms. Lazo:

Subject: Letter of Support for City of San Diego Water Department's  
Watershed Sign Program

Eastern  
Municipal  
Water  
District

The Santa Ana Watershed Project Authority is in support of the pilot City of San Diego Water Department's Watershed Sign Program as a way to create opportunities to learn about the importance of water and watershed resources, and as a way to encourage greater stewardship. We support the efforts of the new pilot Sign Program in the County of San Diego. Our hope would be that these signs be adopted into the CalTrans' family of standard signs and be utilized throughout the region and state, including within the Santa Ana Watershed.

Inland  
Empire  
Utilities  
Agency

We have recently embarked upon a *One Water One Watershed* planning effort where traditional watershed planning has been replaced with a broader more inclusive process. This type of watershed planning requires the engagement of a wider group of stakeholders into the watershed planning process to ensure that all aspects of water are addressed in planning. The Watershed Sign Program could enhance awareness and encourage broader participation in these watershed activities and ultimately, encourage greater stewardship through increased awareness of the linkage between activities within a watershed and water quality.

Orange  
County  
Water  
District

San  
Bernardino  
Valley  
Municipal  
Water  
District

Sincerely,

Santa Ana Watershed Project Authority

Celeste Cantú  
General Manager

Western  
Municipal  
Water  
District

CC:JB:pb  
c: Tedi Jackson, WMWD

K:\projects\Big Tent Concept\Correspondence\WMWD Tedi Ltr of Support re SDiego Water Sign Program 9-7-07.doc



THE  
TRUST  
*for*  
PUBLIC  
LAND



Western Regional Office  
116 New Montgomery St.  
Third Floor  
San Francisco, CA  
94105  
T 415 495 5060  
F 415 495 0841  
www.tpl.org

June 23, 2005

Mr. John Fisher, Chairman, CTCDC  
c/o California Department of Transportation  
Division of Traffic Operations  
1120 N Street, Mail Station 36  
Sacramento, CA 95814

Subject: Letter of Support for City of San Diego Water Department  
Watershed Boundary Signage Program

Dear Mr. Fisher:

The Trust for Public Land (TPL) is in support of the City of San Diego Water Department's efforts to develop a watershed boundary signage program as a way to create opportunities to learn about the importance of watersheds and encourage community stewardship. We support their collaboration with Caltrans to create a design template and sign specifications for watershed boundary signage that could be utilized and implemented throughout the region.

We support this program because it brings attention to the motoring public that they are entering a watershed where a drinking water reservoir is located. Furthermore, the project would assist the region's water utilities in meeting their storm water pollution prevention goals and would supplement the Environmental Protection Agency's efforts to increase awareness and education of the importance of natural resources.

We also believe that this program will assist TPL by helping promote improved water quality for the San Diego region.

Sincerely,

Bob Flewelling  
Southern California Program Director

cc: Tedi L. Jackson, San Diego Water Department



Date: November 1, 2005

Mr. John Fisher, Chairman, CTCDC  
C/O California Department of Transportation  
Division of Traffic Operations  
1120 N Street, Mail Station 36  
Sacramento, CA 95814

Subject: Letter of Support for City of San Diego Water Department  
Watershed Boundary Signage Program

Dear Mr. Fisher:

The San Diego County Wetlands Recovery Project – Task Force is in support of the City of San Diego Water Department's efforts to develop a watershed boundary sign program as a way to create opportunities to learn about the importance of watersheds and encourage community stewardship. We support their collaboration with Caltrans to create a design template and sign specifications for watershed boundary sign that could be utilized and implemented throughout the region.

We support this program because it brings attention to the motoring public that they are entering a watershed where a drinking water reservoir is located. Furthermore, the project would assist the region's water utilities in meeting their storm water pollution prevention goals and would supplement the Environmental Protection Agency's efforts to increase awareness and education of the importance of natural resources.

We also believe that this program will assist the San Diego County Wetlands Recovery Project – Task Force by helping promote improved water quality for the San Diego region.

Sincerely,

Doug Gibson  
Co-Chair

cc: Mr. Gerry Meis and Mr. Devinder Singh, Caltrans



**Linda S. Adams**  
*Secretary for  
Environmental Protection*

# State Water Resources Control Board

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## Executive Office

**Tam M. Doduc, Board Chair**  
1001 I Street • Sacramento, California 95814 • (916) 341-5615  
Mailing Address: P.O. Box 100 • Sacramento, California • 95812-0100  
Fax (916) 341-5621 • <http://www.waterboards.ca.gov>



**Arnold Schwarzenegger**  
*Governor*

**OCT 10 2007**

Mr. John Fisher, Chairman  
California Traffic Control Devices Committee  
c/o California Department of Transportation  
Division of Traffic Operations  
1120 N Street, Mail Station 36  
Sacramento, CA 95814

Dear Mr. Fisher:

### LETTER OF SUPPORT FOR THE CITY OF SAN DIEGO WATER DEPARTMENT'S WATERSHED SIGNAGE PROGRAM

The State Water Resources Control Board (State Water Board) supports the City of San Diego Water Department's Watershed Sign Program (Program). The Program creates opportunities to learn about the importance of watersheds and to encourage community stewardship. The State Water Board also supports San Diego's collaboration with the California Department of Transportation (CalTrans). We encourage CalTrans to adopt these signs into the CalTrans' family of standard signs to be utilized throughout the region and State.

The State Water Board supports the Program because it informs motorists when they cross watershed boundaries. The watershed signs would remind drivers that drinking water reservoirs and other important water sources are located in these areas. The Program also helps San Diego's water utilities meet their storm water pollution prevention goals. Furthermore, the Program supplements the efforts of CalTrans, as well as the State Water Board, and numerous Federal, State and local resource agencies to increase public education and awareness of natural resources and their importance to the quality of life and the economy of California.

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***California Environmental Protection Agency***

OCT 10 2007

By promoting improved water quality for San Diego and California, the State Water Board believes the Program helps us achieve our mission of preserving, enhancing, and restoring the quality of California's water resources.

Sincerely,



Dorothy Rice  
Executive Director

cc: Mr. Gerry Meis  
California Department of Transportation  
Division of Traffic Operations  
1120 N Street, Mail Station 36  
Sacramento, CA 95814

Mr. Devinder Singh  
California Department of Transportation  
Division of Traffic Operations  
1120 N Street, Mail Station 36  
Sacramento, CA 95814

Ms. Destree Lazo, Program Coordinator  
Watershed Sign Program  
c/o Collaborative Services  
427 C Street, Suite 200  
San Diego, CA 92101

G. Scott McGowen  
Chief Environmental Engineer  
Department of Transportation  
Division of Environmental Analysis, MS 27  
P.O. Box 942874  
Sacramento, CA 94274-0001



THE CITY OF SAN DIEGO

# Calls/ Emails Summary



**City of San Diego Water Department, Operations Division**  
**Watershed Sign Program: Calls/Emails Summary**  
**Years: 2007 and 2008**

As of: 8/27/08

Subject	Feb. 07	March 07	April 07	May 07	June 07	July 07	Aug. 07	Sept. 07	Oct. 07	Nov. 07	Dec. 07	2007 Total	2008 Total
Email addresses	39	0	1	2	1	14	0	0	0	0	0	57	0
Signs	2	0	0	0	0	1	0	0	0	1	0	4	2
Thanks and other positive comments	4	0	0	0	0	2	0	0	1	0	0	7	0
Other interest/effort	3	1	2	0	0	1	2	0	2	0	0	11	1
General watershed	1	0	0	0	0	1	0	0	0	0	0	2	0
Progress Check-in	0	2	0	1	0	1	2	0	0	2	1	9	0
Partnering	0	0	0	0	0	1	0	0	0	0	0	1	3
Sub-Total	49	3	3	3	1	21	4	0	3	3	1	91	6
<b>Grand Total</b>												97	