

CITY OF SANTA FE SPRINGS

URBAN WATER MANAGEMENT PLAN (2010 – 2014)

CITY OF SANTA FE SPRINGS
PUBLIC WORKS DEPARTMENT

JUN 23 2011

ORIGINAL
BID SET



DEPARTMENT OF PUBLIC WORKS UTILITY SERVICES DIVISION

Donald K. Jensen
City Engineer
June 2011

INQUIRIES REGARDING THIS PLAN
MAY BE DIRECTED TO
FRANK BEACH, UTILITY SERVICES MANAGER

CITY OF SANTA FE SPRINGS
11710 TELEGRAPH ROAD
TELEPHONE NO. (562) 868-0511, EXTENSION 3611

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INTRODUCTION

This Urban Water Management Plan (UWMP) has been prepared in response to the Urban Water Management Planning Act. The purpose of the Act is to require large water suppliers (with over 3,000 customers) in California to file plans with the Department of Water Resources (DWR) every five years describing and evaluating “reasonable and practical efficient uses, reclamation and conservation activities.” UWMPs were filed with DWR in 1985, 1990, 1995, 2000, and 2005. At this time, the 2010 – 2014 UWMP must be developed per the latest guidelines from DWR to comply with recent legislation. The final, formally adopted plan is due to the DWR office by July 1, 2011.

The City’s Plan is a combined effort between Central Basin Municipal Water District (CBMWD) and its member agencies. Central Basin’s Urban Water Management Plan has been used in reference to the City’s plan and is adopted hereby as part of the City’s Urban Water Management Plan.

SECTION 1: PLAN PREPARATION
Coordination with Appropriate Agencies

The City of Santa Fe Springs participated in several informative meetings held at CBMWD main office. The meetings informed Central Basin members of the process required to complete the 2010 – 2014 UWMP, and to assist member agencies with the development of their plans. Numerous member agencies provided informative observations at the meetings so that all agencies could better develop their own UWMP.

On March 2, 2011, the State Water Resources Control Board (SWRCB) held a workshop at their offices located at 320 West 4th Street, Carmel Room I Los Angeles, CA 90013.

The Cities of Norwalk and Lakewood UWMP plan coordinators were contacted for assistance with several common topics such as interpreting the guidelines and to develop the proper approach.

Table 1 A demonstrates coordination efforts undertaken by the City of Santa Fe Springs.

Table 1 A <i>Coordination with Appropriate Agencies</i>							
Check at Least One Box on Each Row	Participated in Developing the Plan	Commented on the Draft	Attended Public Meetings	Contacted for Assistance	Provide a Copy of the Draft Plan	Provide a Notice of Intention to Adopt	Not Involved / No Information
Other Water Suppliers							
Water Management Agencies			X	X	X	X	
Relevant Public Agencies				X	X		
Other							
Other							

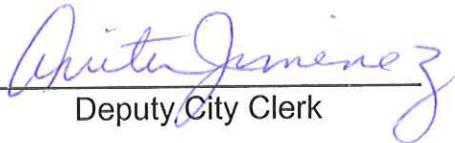


City of Santa Fe Springs

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State of California)
County of Los Angeles)ss
City of Santa Fe Springs)

I, Anita Jimenez, Deputy City Clerk of the City of Santa Fe Springs, do hereby certify that the attached is a true and exact copy of Resolution No. 9329, which was adopted by the City Council of the City of Santa Fe Springs on June 23, 2011.



Deputy City Clerk

June 27, 2011
Date

(Seal)

RESOLUTION NO. 9329

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SANTA FE SPRINGS
ADOPTING THE CITY OF SANTA FE SPRINGS 2010 - 2014
URBAN WATER MANAGEMENT PLAN

WHEREAS, the Urban Water Management Planning Act requires all water purveyors serving more than 3,000 customers or supplying more that 3,000 acre feet of water annually to prepare an Urban Water Management Plan every five years; and

WHEREAS, the primary purpose of the Urban Water Management Plan is to facilitate proper planning for the conservation and efficient use of water supplies; and

WHEREAS, the City of Santa Fe Springs is an urban water purveyor serving a population of approximately 18,199 residents; and

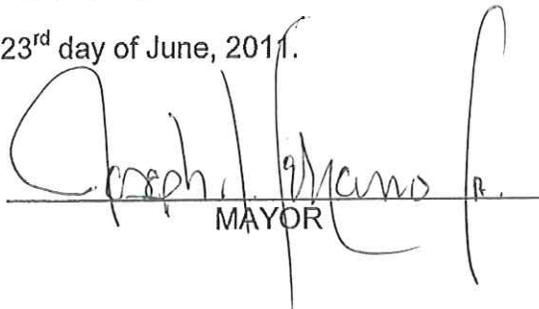
WHEREAS, the 2010 – 2014 Urban Water Management Plan for the City of Santa Fe Springs must be adopted before July 1, 2011 after public review and a public hearing, and filed with the State of California Department of Water Resources within thirty days of adoption; and

WHEREAS, an updated Plan was developed and was made available for public review on June 2, 2011;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SANTA FE SPRINGS DOES HEREBY RESOLVE AS FOLLOWS:

- SECTION 1. That a Public Hearing was held on June 23, 2011 to receive public comment and testimony as required by the Urban Water Management Planning Act.
- SECTION 2. The 2010 – 2014 Urban Water Management Plan for the City of Santa Fe Springs is hereby adopted
- SECTION 3. The Director of Public Works is hereby authorized and directed to file the same Plan with the California Department of Water Resources within thirty (30) days.

APPROVED and ADOPTED this 23rd day of June, 2011.


MAYOR

ATTEST:


CITY CLERK

SECTION 2: SYSTEM DESCRIPTION
Service Area Information with 20-Year Projections

The City of Santa Fe Springs is located approximately 13 miles southeast of downtown Los Angeles and 18 miles north of the City of Long Beach. Neighboring cities located clockwise from the northeast are Whittier, La Mirada, Cerritos, Norwalk, Downey and Pico Rivera. According to the 2000 census, the total population of the City of Santa Fe Springs is 17,438. Approximately 85% of the City's nine-square mile area is zoned for commercial and industrial use. The remaining 15% is zoned for residential use and virtually all of these areas are now fully developed. Residential land uses are concentrated along the western perimeter of the City away from industrial development.

Table 1 <i>Service Area Population - Current and Projected</i>						
	2010	2015	2020	2025	2030	2035 – opt
Service Area Residential Population [1]	18,199	20,475	22,751	25,027	27,303	29,578

Table 2 <i>Climate</i>						
	January	February	March	April	May	June
Standard Average ETo [2]	1.65	2.15	3.59	4.77	5.12	5.71
Average Rainfall [3]	3.56	3.91	3.06	0.9	0.23	0.07
Average Temperature [3]	69.4	71.1	72.8	77.8	79.4	83.7

The climate in Santa Fe Springs is provided on Table 2 for 2010.

Table 2 (Cont'd) <i>Climate</i>							
	July	August	September	October	November	December	Annual
Average ETo	5.93	5.91	4.39	3.22	2.18	1.68	46.3
Average Rainfall	0.02	0.02	0.2	0.30	1.23	1.88	15.40
Average Temperature	88.6	89.7	87.9	82.6	75.4	70.9	79.1

[1] Data obtained using California US Census Bureau, Census 2000.

[2] Data obtained from California Irrigation Management Information System (CIMIS) at Long Beach Station for the Los Angeles Region for Calendar Year 2010:

<http://www.cimis.water.ca.gov/cimis/monthlyEToReport.do>

[3] Data taken from the Western Regional Climate Center's website at the Montebello station: <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?camont>

SECTION 3: WATER SYSTEM DEMANDS

The State Department of Water Resources developed a guideline for urban water suppliers to prepare a 2010 urban water management plan. The guideline presents steps, technical methodologies, and calculation procedures that are used to establish the following required items: Water Baseline, Water Use Target, 2015 Compliance Daily Per Capita Water Use, and 2020 Compliance Daily Per Capita Water Use.

Using historical records, the City's Water Demand Projections will be calculated after the baselines and targets are examined and the target per-capita amounts are set. Currently, Santa Fe Springs' Water Utility does not sell water to other agencies and no anticipated low income single or multifamily residential water demands were considered.

Establishment of Santa Fe Springs Water Baseline:

Base Daily Per Capita Water Use Calculation

Three calculation steps were performed to obtain the base daily per-capita water usage for the Santa Fe Springs Water System and are described below.

First, calculate Gross Water Use using Technical Methodology 1

This methodology requires listing of the following facts:

- The amount of water exported to the City of Norwalk is to be excluded from the gross water use.
- Santa Fe Springs Water System does not have recycled water entering the distribution grid.
- Santa Fe Springs Water System reservoirs do not contribute to the distribution grid.
- The recycled water consumption was 10% in the year 2008 as shown below.

The Gross Water Use for Santa Fe Springs Water System was calculated for years 2000 through 2010 and is presented in Appendix A. The following is an example for one of those years.

EXAMPLE

Water Consumption (CCF) [NOTE: Includes Reclaim in Cycle 20 Totals]
January 2010 - December 2010

CYCLE	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	
1	13,296		8,986		16,546		22,931		21,439		18,471		
2		11,623		13,303		21,451		23,776		22,808		16,251	
3	11,840		10,874		13,426		19,472		20,366		16,141		
4		7,797		8,689		13,997		15,401		14,075		8,895	
5	4,055		3,705		4,981		6,096		6,264		5,183		
6		8,340		7,894		10,896		11,412		10,503		8,078	
7	6,566		5,369		8,108		12,268		12,036		8,394		
8		8,659		9,097		13,303		12,904		12,127		9,285	
9	4,242		3,333		4,730		6,906		7,126		5,926		
10		9,295		9,947		14,544		14,797		14,464		10,815	
11	6,829		5,629		7,299		9,054		8,572		7,304		
12		9,424		9,422		12,433		12,516		11,946		9,157	
13	9,375		6,863		8,077		9,954		10,162		8,196		Residential
14		12,181		13,328		18,731		18,934		16,766		14,055	92,119
15	19,222		17,994		29,376		37,421		36,092		33,282		68,854
16		10,504		12,892		16,991		18,658		16,297		12,708	30,284
17	19,286		18,224		23,791		27,163		26,399		23,978		57,123
18		30,668		34,168		43,381		42,829		40,498		31,060	52,741
19	16,704		16,312		24,997		30,344		29,991		22,670		65,375
20	53,392	57,221	72,468	80,340	89,573	98,102	88,488	98,100	87,423	72,943	80,790	55,046	32,263
21 (Temp)	1,090	63	519	118	305	374	290	24	538	36	39	329	73,862
Closed	396	116	611	999	285	269	604	402	1,196	1,832	478	588	44,687
NWK	12,437		9,106		11,924		13,996		15,430		12,517		64,898
Totals	178,730	165,891	179,993	200,197	243,418	264,472	284,987	269,753	283,034	234,295	243,369	176,267	52,627
Grand Total CCF	2,724,406												Downey
													52,627
													Hyd Meters
													Unpaid Accts
													Norwalk (not used for res.)
													75,410
													Res. Total SFS+DWNY only
													634,833

Res. % of City Potable. use= 25.47%

Potable = 2,492,132

Reclaim = 232,274

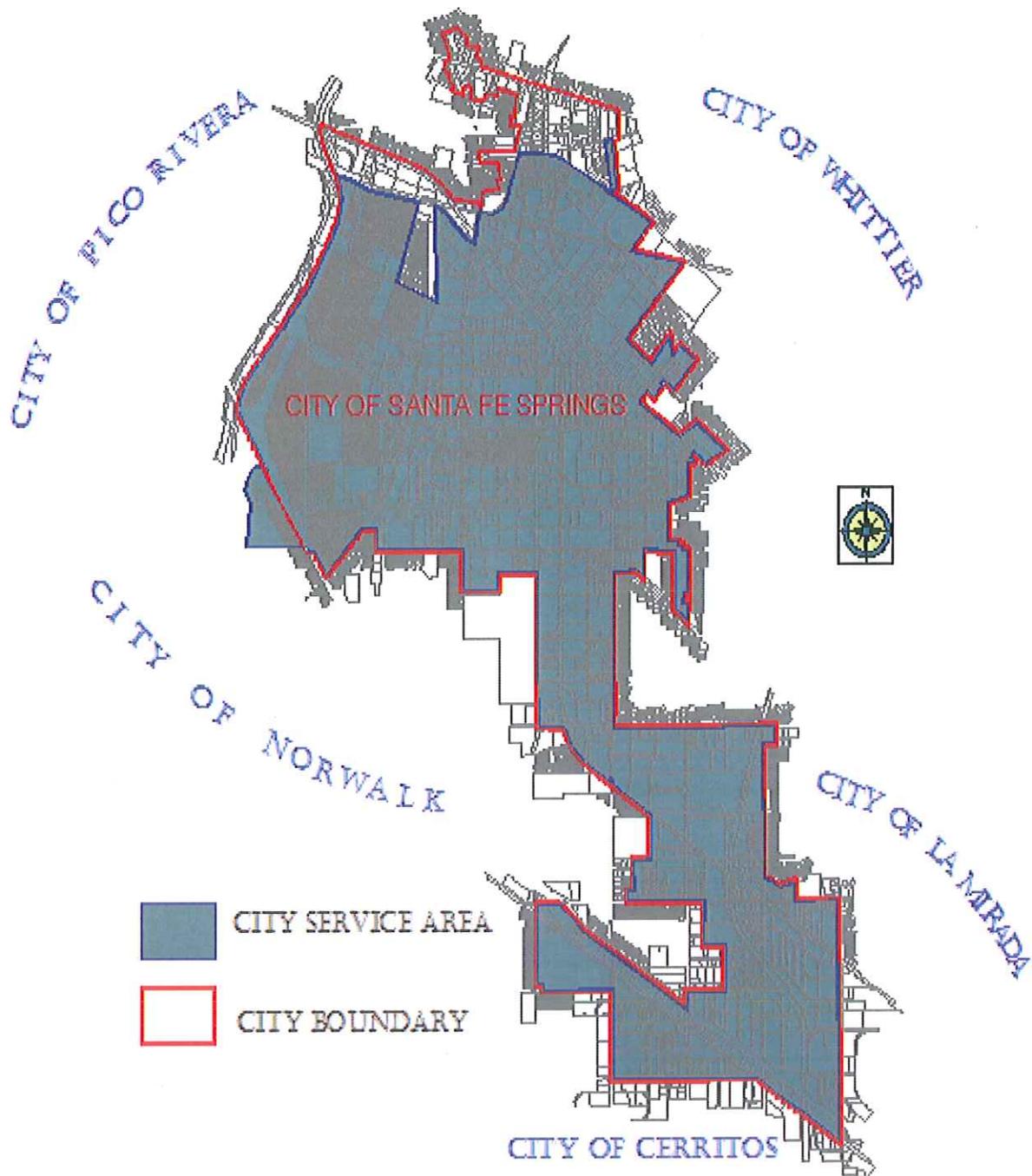
Grand Total = 2,724,406

POTABLE TOTALS ONLY		
Total Calendar Year AF =	5,721 AF	
residential (incl. dwny)=	1,457 AF	25.5%
commercial =	2,525 AF	44.1%

Second, calculate Service Area Population using Technical Methodology 2:

Figure 1 depicts a map determining the Santa Fe Springs service area boundary. Only the population within this area will be considered in the calculations.

Figure 1



The service area population must be adjusted based on the following factors:

- The latest Census information for 2000 showed a population of 17438.
- A population served in the area of Downey was added.
- The population from an amount of homes not served by the City was subtracted.

The detailed calculation procedures are presented in Appendix B.

Tables 3 and 4 below show the City of Santa Fe Springs past, current, and projected population. Ten-year figures are required as part of the calculations.

For Table 4, Methodology 2 was used to calculate the Service Area Population for the last ten years.

Table 3 <i>Service Area Population (2010 – 2035)</i>						
	2010	2015	2020	2025	2030	2035 - opt
Service Area Population	18,199	20,475	22,751	25,027	27,303	29,578

Table 4 <i>Service Area Population (2001 – 2010)</i>	
Year	Population
2001	17,651
2002	17,757
2003	17,853
2004	17,887
2005	17,879
2006	17,831
2007	17,861
2008	18,064
2009	18,131
2010	18,199

Third, calculate Base Daily Per Capita Water Usage using Technical Methodology 3:

Ten-year Gross Water Usage is required for calculations. Using the Gross Water Usage Data for each year as calculated in the first step, Table 5 presents the ten-year base period Gross Water Usage. These values will be used to calculate a daily per-capita water use shown in Table 6.

Table 5 <i>Gross Water Usage (2001 – 2010)</i>	
Year	Water
2001	7,119
2002	7,526
2003	7,428
2004	6,669
2005	6,336
2006	6,809
2007	7,208
2008	6,101
2009	5,570
2010	5,721

Table 6 <i>Water Usage 2001 - 2010</i>			
Year	Service Area Population	Gross Water Usage (AFY)	Base Daily Per-Capita Water Usage (gpd)
2001	17,651	7,119	360
2002	17,757	7,526	378
2003	17,853	7,428	371
2004	17,887	6,669	333
2005	17,879	6,336	316
2006	17,831	6,809	341
2007	17,861	7,208	360
2008	18,064	6,101	302
2009	18,131	5,570	274
2010	18,199	5,721	281
Base Daily Per Capita Water Usage			332

Establishment of Santa Fe Springs Urban Water Usage Target:

Method 1 requires the following:

- Obtain 80% of the calculated base daily per capita water usage. This is calculated to be:
 $80\% \times 332 = 266 \text{ gpcd}$
- Confirm the five-year urban water usage target as shown below on Table 7:

Year	Service Area Population	Gross Water Usage (AF)	Base Daily Per-Capita Water Usage (gpcd)
2006	17,831	6,809	341
2007	17,861	7,208	360
2008	18,064	6,101	302
2009	18,131	5,570	274
2010	18,199	5,721	281
Base Daily Per Capita Water Use			312

- Calculate 95% of the five-year base daily per-capita water usage. This is calculated to be:
 $95\% \times 312 = 296 \text{ gpcd}$
- Compare the water usage target to see if its value is lower than 95% of the 5-year base daily per-capita water usage. If yes, then no adjustment to its value is needed.

Is $266 < 296$? Yes, therefore the urban water usage target is 266 gpcd

Establishment of the Interim Urban Water Usage Target.

Interim Water Use Target is calculated and found to be:

$$(266 + 312)/2 = 289 \text{ gpcd}$$

The 2015 Compliance Daily Per-Capita Water Usage from calculations is: 289 gpcd

The 2020 Compliance Daily Per-Capita Water Usage from calculations is: 266 gpcd

The water use projections in Tables 8 and 9 include a new residential development with more than a projected 550 dwelling units to bring about 1,956 new residents by 2015. The supporting Water Supply Assessment is attached in Appendix F.

Table 8				
<i>Water Meter Services Increase</i>				
Total Meters		2008	2009	2010
Domestic	Residential	3,843	3,867	3,954
Domestic	Residential	1,094	1,099	1,099
Domestic	Fire	807	812	820
Domestic	Irrigation	69	73	79
Reclaimed	Irrigation	104	105	106
Reclaimed	Industrial	1	1	1
Total Active Domestic		5,813	5,851	5,952

Table 8a			
<i>Lower Income Housing Water Usage Estimates</i>			
Year	# of Units	Water Usage Estimate (AFY)	Total Estimate
2005 – 2010	39	3.53	3,954
2010 – 2015	12	3.53	1,099
2015 - 2020	5	3.53	820

Using population estimate values from Table 2 and the estimated daily per-capita water usage for 2020 and 2015 previously calculated:

Table 9 Water Demand Usage and Projections									
Water Usage Sectors	Metered		Metered		Metered		Metered		Deliveries AFY
	# of Accounts	Deliveries AFY							
Residential	3,198	1,429	3,954	1,457	4,604	1,988	4,667	2,034	2,237
Commercial	1,859	4,907	1,998	4,264	2,144	4,640	2,447	4,745	5,220
Total		6,336		5,721		6,628		6,779	7,457

Note: Commercial accounts include fire landscape and industrial accounts.
Residential estimates include low income projections as shown on previous page.

SECTION 4: SYSTEM SUPPLIES
Water Sources

The City of Santa Fe Springs Water System has approximately 6,015 service connections through a pipeline network of approximately 108 miles. The large industrial makeup of the City creates high daytime water demands and low nighttime demands. Total weekly flows throughout the year vary between 95 and 180-acre feet. The City's potable system is supplied by one water well, two MWD connections, and two 4-million gallon reservoirs, each reservoir with a booster pumping station. A new water well is planned for construction and potential operation in 2011. In addition to the potable water system, the City utilizes reclaimed water for irrigation needs in many locations. Many parks and large industrial complexes have converted their irrigation systems to reclaimed water, while many other customers are researching the cost benefits of irrigating with reclaimed water. The City shares maintenance of reclaimed water mains throughout the City with Central Basin Municipal Water District contractors.

Table 10 represents planned water supply sources along with the currently projected acre-foot quantities expected to be available. The City does not anticipate any additional water

Table 10						
<i>Current and Planned Water Supplies (AFY)</i>						
Water Supply Sources (Purchases)	2010*	2015	2020	2025	2030	2035 - opt
Water Purchased from:						
Metropolitan Water District	3,484	1,000	1,000	1,000	1,000	
Central Basin Municipal Water District WQPP	1,755	2,016 ***	2,016 ***	2,016 ***	2,016 ***	
Supplier Produced Groundwater	950	3,612	3,763	4,441	2,693	
<i>Partial Total</i>	6,189	6,628	6,779	7,457	8,372	
Central Basin - Recycled Water (Projected Usage)	533	779**	780	780	780	
Total	6,722	7,407	7,559	8,237	9,107	

*Data obtained using City historical data water production shown on the following pages in Figures 2, 3 and 4.

** Annual average from Figure 2

*** Per contract with WQPP minimal amount of 1,250 gpm 24/7

Figure 2
Historical City of Santa Fe Springs Water System Supply per Calendar Year

Supply (afy)	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Average
SFS Wells Groundwater	2051	3954	3436	3256	3245	4083	3451	3277	4023	3882	2978	2974	2095	1575	1445	908	950	
Whittier Connection	0	0	0	0	0	0	0	0	0	0	173	2115	1518	1527	1646	1861	1755	
Total Ground Water	2051	3954	3436	3256	3245	4083	3451	3277	4023	3882	3151	5089	3613	3102	3091	2770	2705	3422
Purchased Water	5868	3367	3226	3786	3807	3658	4395	4190	3831	3710	4253	2273	3669	4492	4083	3722	3484	3871
Total Supply Domestic	7919	7321	6661	7042	7052	7741	7846	7468	7854	7592	7404	7362	7282	7594	7174	6491	6188	7294
Recycled Water purchased	723	849	998	1013	836	787	864	884	894	788	674	657	683	779	689	598	533	779
Total Supply	8642	8170	7659	8055	7888	8528	8710	8351	8748	8380	8078	8019	7965	8373	7863	7090	6722	8073

Figure 3
Historical City of Santa Fe Springs Water System Supply per Calendar Year

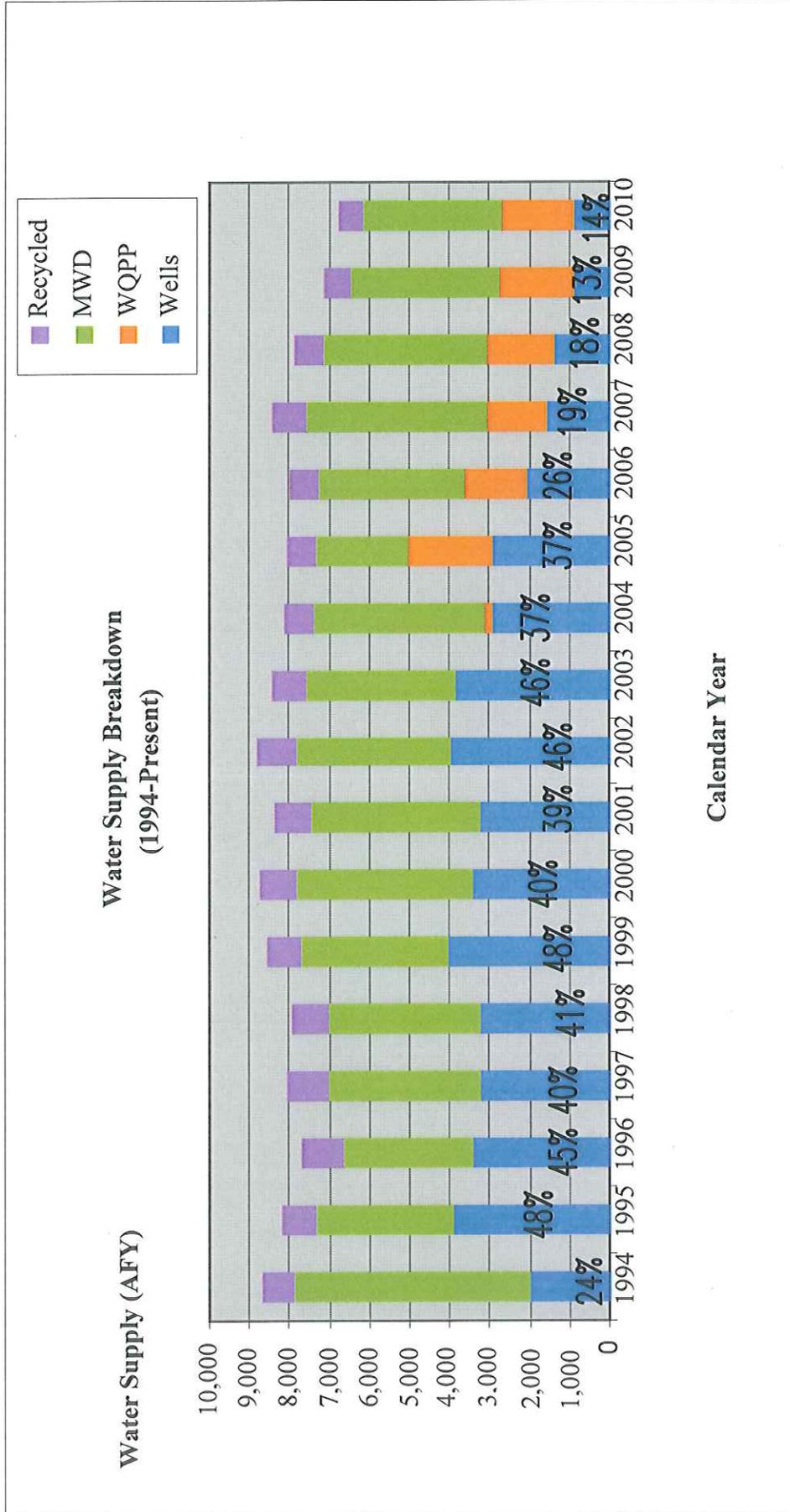
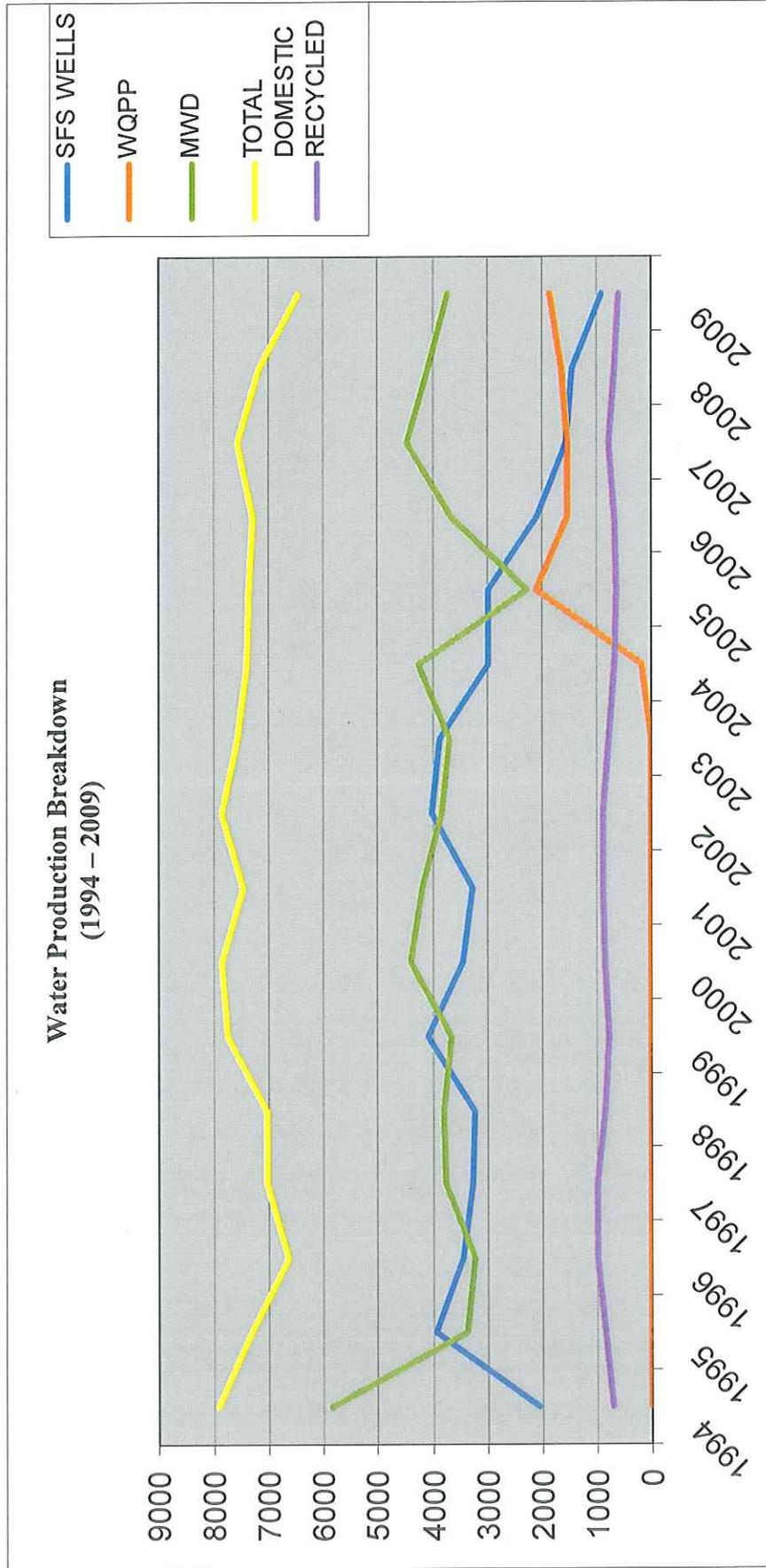


Figure 4
 Historical Santa Fe Springs Water System Production per Calendar Year



Groundwater Management

The City of Santa Fe Springs is located within Central Basin, which is an adjudicated basin. The quantity of water the City may pump from the basin depends upon how many water rights are owned by the City. Presently, the City owns 4,036 acre-feet (AF) of pumping rights within Central Basin. Total potential water rights are 4,036 AF plus any carryover rights the City may have remaining from the previous year. The City is allowed to carry over 20% of water rights into the following year. Conversely, if during a given year the City needs to pump more water than it has water rights, the City can over pump by 20%. During the following year, the City must make up for the over pumping either by under pumping water rights or purchasing exchange pool water.

Table 11 <i>Groundwater Pumping Rights (AFY)</i>	
Basin Name	Pumping Rights
Central Basin	4,036
Total	4,036

Current and projected ground water production: The City of Santa Fe Springs currently pumps approximately 70% of its water rights annually and does not predict the ability to acquire additional water rights within the adjudicated basin.

Table 12 <i>Amount of Groundwater pumped (AFY)</i>					
Basin Name (s)	2005	2006	2007	2008	2009
Central Basin	5,089	3,413	3,102	3,091	2,770
% of Total Water Supply	64%	45%	37%	39%	39%

Table 13 <i>Amount of Groundwater projected to be pumped (AFY)</i>					
Basin Name(s)	2015	2020	2025	2030	2035 - opt
Central Basin	4,036	4,036	4,036	4,036	4,036
% of Total Water Supply	%				

The City currently has an adequate supply for the single dry water-year and multiple dry water-year scenarios. The “Normal Water Year” used in this plan is based on the average rainfall year - FY 2000-01. According to the National Weather Service, the recorded rainfall in FY 2000-01 was 17.94 inches - one of the closest years to the historical average of 16.42 inches. The “Single Dry Year” is based on the lowest rainfall year – FY 2001-02. The recorded rainfall in FY 2001-02 was at 4.42 inches - the lowest recorded year in over one hundred years. The three “Multiple Dry Water - Years” used below were based upon the most recent multiple dry-year period - FY 2001-02, 2002-03, and 2003-04.

Table 14					
<i>Supply Reliability (AFY)</i>					
Supplies	Normal Water Year FY 2000-01	Single Dry Water Year FY 2001-02	Multiple Dry Water Years		
			Year 1 FY 2001-02	Year 2 FY 2002-03	Year 3 FY 2003-04
Central Basin Municipal Water District	4,244	4,345	4,345	3,563	3,901
Supplier produced groundwater	4,036	4,036	4,036	4,036	4,036
Recycled Water	837	837	837	837	837
TOTAL SUPPLY	9,117	9,218	9,218	8,436	8,774

Groundwater is shown constant in all scenarios due to pumping rights, which limits the total amount that the City is able to extract. The numbers above are based on the total allowable pumping allocation (APA) according to the 2010 DWR Central Basin Watermaster Report.

Recycled water is also constant in all scenarios because the availability of recycled water is not subject to hydrologic variation. This value corresponds to the five-year average. Imported water is currently the only supply that can fluctuate under different hydrological scenarios.

The City does not anticipate water transfers or desalinated water opportunities due to the fact that the City is located about 30 miles from the ocean.

Recycled and Waste Water Plans

The City of Santa Fe Springs collects sewage through its extensive sewer main system, and delivers it to various connection points of the Los Angeles County Sanitation District Sewer System. Los Angeles County Sanitation District treats the water from the sewage system and produces some tertiary treated water as recycled water.

Central Basin Municipal Water District (CBMWD) purchases this recycled water, and through its extensive recycled water main system, delivers the water to its customers. The recycled water is utilized for basin recharge, irrigation, and industrial purposes.

CBMWD is the wholesaler who sells recycled water to many individual water agencies, including the City of Santa Fe Springs. The City's five-year average purchase of reclaimed water is 656 acre-feet. Over the past 17 years, the City's average purchase of reclaimed water has been approximately 780 acre-feet. This number will be used for statistics over the next 20 years. A carpet dyeing business is the largest user of reclaimed water in the City. Most of the remaining reclaimed water is used for landscape irrigation and by a concrete mixing plant. The City has made a tremendous effort to keep track of recycled water use. Meter numbers and addresses of installations are recorded as presented in Appendix I.

CBMWD is the Lead Agency with respect to recycled water concerns in Santa Fe Springs. CBMWD pursues new customers and makes initial contact with each perspective recycled water customer.

The City of Santa Fe Springs provides a supporting role by inspecting new sites, in conjunction with the California Department of Public Health (DPH), to verify all system modifications. Signing and tagging for reclaimed water piping systems is completed prior to installing the water meter for service activation.

Some of the actions taken by the City to encourage recycled water use are: subsidizing costs, regional planning, incentive programs, rate discounts, prohibition of specific potable water uses, low-interest loans, public education/information, and to require recycled water use where appropriate.

For further detail, please reference Central Basin's UWMP.

Anticipated Recycled Water Opportunities in the City of Santa Fe Springs

POSSIBLE RECLAIMED WATER CONVERSIONS

Account #	Address	Purpose	Meter #	Cycle	Type	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Annual Total CCF	Monthly Avg CCF
24014020	10088 Ceadardale <i>Reclaim main of substantial length would need to be installed to SFS Park</i>	SFS Park - Domestic + Irrigation	R1344283	7	potable	1940	1471	1218	1061	584	10	9	72	403	1046	1201	1192	10207	851
67008730	11300 Greenstone <i>Reclaim water main in street - would need to install service/meter</i>	Fire Station - Domestic + Irrigation	S340086	16	potable	170	199	165	97	109	90	189	111	136	172	149	168	1755	146
29002740	N/E Cor Pacific/Norwalk	Median	I64867133	2	potable	7	8	5	5	23	3	0	0	4	4	12	8	79	7
29002750	S/E Cor Pike/Norwalk <i>Reclaim water main in street - would need to install service/meter</i>	Median	I64620986	2	potable	13	18	7	16	6	9	0	0	0	28	22	9	128	11
62000930	510 W/O Bloomfield on Tel <i>Reclaim water main in street - would need to install services & meter/s</i>	Median	39621	2	potable	70	51	71	27	71	43	0	0	0	18	47	54	452	38
5022460	9246 Pioneer	Irrigation	I62550388	3	potable	17	22	17	21	23	1	1	2	6	2	14	11	137	11
5022480	9226 Pioneer	Irrigation	I64867137	3	potable	34	168	31	55	7	0	0	9	15	3	56	38	416	35
5022500	9214 Pioneer	Irrigation	I65023001	3	potable	18	32	20	8	2	1	0	3	5	4	21	14	128	11
5022520	9124 Pioneer	Irrigation	PJ027990	3	potable	6	6	4	7	6	0	1	0	1	0	6	5	42	4
5022540	9108 Pioneer	Irrigation	I65022989	3	potable	57	50	17	62	48	2	0	8	13	2	53	34	346	29
5022560	9034 Pioneer	Irrigation	I65023004	3	potable	49	61	28	70	30	3	2	4	6	4	35	19	311	26
5022580	9000 Pioneer	Irrigation	P60768174	3	potable	8	9	14	1	9	1	0	1	1	2	2	2	50	4
5022600	9039 Pioneer	Irrigation	PK062663	3	potable	49	49	33	49	58	52	3	30	21	43	0	76	463	39
5023180	9255 Pioneer <i>Reclaim main would need to be installed from Charlesworth north along Pioneer</i>	Neighborhood Center & Irrigation	S340105	3	potable	452	619	239	705	360	103	60	125	168	295	425	422	3973	331
7015610	9720 Pioneer <i>Reclaim existing but not used due to environmental issues</i>	Jersey Fields - Irrigation	R63967362	4	potable	1059	1404	2761	0	529	18	19	86	204	866	891	1181	9018	752
2002320	10528 Pioneer <i>Reclaim water main in street - would need to install service/meter</i>	median - south of clarkman	PZ532093	8	potable	175	92	96	303	860	0	0	60	48	119	124	103	1980	165

Future Potable Water Projects

Included in the Adopted 2006 Santa Fe Springs Water Master Plan are the following projects:

- **New Well in Zone 2 by 2011**
Currently requesting proposals for the well design and drilling.
- **Portable Generators for existing wells**
It was recommended that the City purchase two portable generators, with one generator dedicated to each well site.
- **Cast Iron Main Replacement Program**
Includes about 4,700 feet of pipe citywide.
- **Undersized (4") Main Replacement Program**
Citywide replacement of about 1,000 linear feet of pipe in addition to the 4,000 linear feet of pipe that were replaced in 2010.
- **16-inch Transmission Main Phase 1 and 2**
A major steel water transmission main that varies in size from 16 to 18 inches and is routed from the southern portion of Zone 2 into the middle of Zone 1 directly links Reservoir 1, MWD CD 42, Reservoir 2, and Well No. 2 has failed at multiple locations over the years. The steel transmission main is over 40 years old.

The integrity of the entire transmission main, which is approximately 8.4 miles, is in question. It is recommended that a preliminary investigation and design be completed in order to determine where the pipeline is defective, and the general methodology to follow in order to repair or replace the pipeline.

- **New Zone 1 and Zone 2 Storage Reservoirs**
A 3.0 MG reservoir is recommended for Zone 1, and a 1.0 MG reservoir is recommended for Zone 2 to satisfy the storage requirements through the planning period.
- **Booster Pump Station for Zone 1 Low Pressure Area**
A small booster pump station with a hydropneumatic tank might be needed to ensure that a more desirable pressure range is achieved in the Zone 1 Low Pressure Area. It is estimated that the booster station would have three pumps, with one pump acting as backup. A masonry building is expected to house the pumps and associated equipment, piping, and electrical equipment.

**SECTION 5: WATER SUPPLY RELIABILITY AND WATER SHORTAGE
CONTINGENCY PLANNING – DROUGHT PLANNING**

**WATER SHORTAGE CONTINGENCY PLAN
STEP ONE: STAGES OF ACTION**

Existing water supplies and the estimated future water supplies are the determining factors for stage implementation. The State Department of Water Resources sets the pattern for stage implementation by determining its predicted allotments to all water contractors receiving state project water.

Metropolitan Water District (MWD), as a water contractor, determines what stage cutback will be necessary after looking at all sources of their water supply. CBMWD then sets the Drought Emergency Stage utilizing their Contingency Plan.

The City then determines what stage cutback will be mandated after looking at all of the available resources. The City, by only receiving 50% or less of its supply from MWD, can adjust the stage cutback by offsetting the cutback with well water. The only time the City would be held to a specific percentage cutback would be if the Governor of California were to mandate a specific percentage cutback to all water customers in the State.

In 1991, the Santa Fe Springs' City Council adopted Resolution No. 5592, establishing an Emergency Water Conservation Plan. (See Appendix L.)

Table 15		
<i>Water Supply Shortage Rationing Stages and Conditions</i>		
Stage No.	Water Supply Conditions	% Shortage
I	Voluntary	10% cut
II – V	Mandatory	10% – 50% cut
VI-VII	Mandatory	100% MWD water cut or state mandate

No customer of the City shall make, cause, use or permit the use of water from the City for residential, commercial, industrial, agricultural, governmental or any other purpose in a manner contrary to any provision of, or in an amount in excess of, that use permitted by the conservation stage presently in effect pursuant to action taken by the City Council in accordance herewith. The City Council shall determine which Stage is necessary to accomplish water conservation requirements, based on the severity of the water shortage emergency.

During times of drought, mandatory water supply cutbacks will be in effect. The City's imported source (MWD) will be the first supply to be cut back. Presently, MWD water meets 45% of our water supply demand, however, as more users switch from the City's domestic supply to recycled water, this percentage will drop. Ultimately, MWD sources will likely fill 30-35% of the City's total water demands. This will equate to a 50% cutback from MWD during times of drought equivalent to a 23% cutback in the City's

total supply. Recycled water should not sustain any drought cutbacks, likewise with groundwater pumping unless the City deems it necessary. Table 16 below uses data from planned water supplies as shown in Table 9 for recycled and imported water from CBMWD to create a three-year estimated minimum water supply showing cutbacks of 10, 30 and 50 percent. For the years 2011, 12 and 13, a minimum demand figure was used equal to 2010, which so far has been the lowest demand due to the economic crisis. The same criteria were used for recycled water demand calculation.

Table 16 <i>Three-Year Estimated Minimum Water Supply (AFY)</i>				
Source of Supply	Actual 2010	Year 1 2011	Year 2 2012	Year 3 2013
Allowed Groundwater Pumping Allocation	2,705	4,035	4,035	4,035
Purchased from CBMWD	3,884	-10% 3,496	-30% 2,447	-50% 1,224
Recycled Water	533	533	533	533
TOTAL SUPPLY	7,122	8,064	7,015	5,792
Project Demand	6,254	6,254	6,254	6,254
Supply (Shortfall)	864	1,810	761	-462
REQUIREMENT	0 % cut-back required	No cut-back required	No cut- back required	7.4% cut-back

Preparation Actions for a Catastrophe

In the event of a catastrophic supply interruption, the City will implement a water shortage contingency plan which is included and within the Urban Water Management Plan and updated every five years. This plan includes specific supplier actions designed to minimize the impacts of supply interruption in the City’s service area. Below is a table showing a possible catastrophe and an action summary.

Possible Catastrophe: *Regional Power Outage.* The City continuously trains employees to execute the Emergency Response Plan for such a catastrophe. The City has a list of trained personnel that can transport to, connect, and operate an emergency standby generator at a well site to maintain a water supply to the City.

Possible Catastrophe: *Earthquake.* Expect MWD to use free-chlorine instead of chloramines for disinfection as stated May 25, 1993. The City receives notification of the chlorination change via Member Agency Response System (MARS) or by telephone within eight hours of the earthquake.

The City continuously trains employees to execute the Emergency Response Plan for such a catastrophe. The City has portable chlorinators that can be installed at the well sites. The City maintains these units in its current equipment inventory. The City has a

list of State-Certified water treatment operators to operate and adjust the chlorinators after notification to chlorinate by the Department of Health Services.

Possible Catastrophe: *Unknown Loss in System Pressure.* According to the City Emergency Response Plan, the City will follow four necessary steps prior to a public notification program:

1. Determine the reasons for loss in system pressure. A survey of the system should reveal the cause, such as a break in a main, reservoir, or well.
2. Take appropriate action to reduce loss of water supply. Shut down appropriate facilities and/or close distribution system valves. Each valve that is closed shall be logged on the Emergency Valve Closure Log.
3. Define the type of potential contamination that may occur and identify possible sources.
4. Determine the area that is potentially affected by the problem.

After the above steps have been completed, sampling locations will be selected to verify that contamination has occurred. Notification of relevant agencies will occur prior to public notification process.

Possible Catastrophe: *Unknown Event that Requires that the Entire Water System be Disinfected at a Rate of 5mg/L.* City source water and stored water will be chlorinated in the following manner:

Well #1 (8634 Dice Road, Santa Fe Springs)

This is an electrically operated well that produces a maximum of approximately 1,500 gallons-per-minute directly into the distribution system. This well is equipped with redundant chlorine metering pumps and an on site 500 gallon chlorine storage tank. The City will fill and draw from this tank on-site while maintaining a minimum of 200 gallons of 12.5% sodium hypochlorite. The existing chlorination system is capable of chlorination to 5 mg/L.

Well #2 (15517 Carmenita Road, Santa Fe Springs)

This is an electrically operated well that produces a maximum of approximately 1,900 gallons-per-minute directly into the distribution system. This well is equipped with redundant chlorine metering pumps and an on-site 500 gallon chlorine storage tank. The City will fill and draw from this tank on site and maintain a minimum of 200 gallons of 12.5% sodium hypochlorite. The existing chlorination system is capable of chlorination to 5 mg/L.

Reservoir #1 (12636 Emmens Way, Santa Fe Springs)

This is a 4-million gallon above-ground water storage reservoir. It loads through a 12" pressure sustaining control valve and discharges via a natural gas booster pump or an emergency standby diesel booster directly into the distribution system. This reservoir is

equipped with redundant chlorine metering pumps and an on site 600 gallon chlorine storage tank. The City will fill and draw from this tank on site and maintain a minimum of 300 gallons of 12.5% sodium hypochlorite. The chlorination system is capable of raising the chlorine level to 5 mg/L in the reservoir. The reservoir can be also chlorinated to 5 mg/L with 65% calcium hypochlorite granules through hand holes in the top of the tank.

Reservoir #2 (13636 Foster Road, Santa Fe Springs)

This is a 4-million gallon above-ground water storage reservoir. It loads through a 12" pressure sustaining control valve and discharges via a natural gas booster pump or an emergency standby diesel booster directly into the distribution system. The reservoir is equipped with a chloramination system consisting of chemical metering pumps tied into a 3" bypass valve and a water circulation piping grid on the bottom of the tank. This system is capable of raising the chlorine level to 5 mg/L with 12% sodium hypochlorite supplied by 55 gallon DOT approved drums delivered by trailer. The reservoir can be also chlorinated to 5 mg/L with 65% calcium hypochlorite granules through hand holes in the top of the tank.

Whittier Connection (Rivera Road, 250' West of Chetle Road)

This is a 6" connection that consists of a 6" pressure-reducing valve tied to an 8" main and is capable of providing up to 1,500 GPM. This source would be chlorinated to 5 mg/L through an existing 2" tap by using one of the City's portable chlorination units.

Metropolitan Water District Connection #30 (Imperial Highway 300' West of Carmenita Road)

This connection is a 12" pressure-reducing valve tied to a 96" MWD water main which yields 10 CFS maximum.

Metropolitan Water District Connection #42 (Imperial Highway 100' East of Shoemaker Avenue)

This connection is a 12" and a 6" pressure-reducing valve tied to a 96" MWD water main which yields 16 CFS maximum. This connection would not be used unless absolutely necessary, and would be dependent upon the scope of the causative incident, the level and type of disinfection being employed by MWD at the time, and the demands upon the City's water system. If this connection were to be used, the City would have to limit the water flow to the chlorinating capacity of the portable chlorination units. The City would chlorinate to 5 mg/L through an existing 1" tap. A 24-hour manned operation would be established to maintain water flow at a fixed rate.

Well #4 (11921 Telegraph Road, Santa Fe Springs)

This is a standby well that consists of a natural-gas powered, variable-speed engine with that discharges directly into the distribution system through a 12" main line. This well is kept on emergency standby status due to problems with objectionable taste and odors from high TDS and H₂S in the aquifer. If this well were to be used it would be chlorinated through an existing ¾" tap with a portable chlorination unit.

Portable Chlorination Units

The City currently has one portable chlorination unit which consists of two 100 GPD, 100 psi metering pumps, and a 1 HP booster pump all connected together. The trailer contains multiple 55 gallon DOT approved chemical drums. The City is in the process of assembling at least two more portable units that will not include a booster pump.

Chlorination Chemicals

As previously stated, the City’s two operational wells are equipped with 500 gallon chlorine storage tanks. These tanks are refilled by Basic Chemical Services (BCS) before the chlorine level falls below 200 gallons. The City also maintains a 600 gallon sodium hypochlorite tank at the Municipal Services Yard (12636 Emmens Way, Santa Fe Springs) to supply the 4MG reservoir. This tank is kept at least half-full and could be used to fill DOT approved drums for distribution to other locations in case of an emergency. BCS is also available to make emergency deliveries of chemicals citywide. Additionally, the City also maintains a minimum of 500 pounds of calcium hypochlorite at the Aquatic Center (10145 Pioneer Boulevard, Santa Fe Springs) that could be used for water system chlorination in emergencies.

Table 17 <i>Mandatory Prohibitions</i>	
Prohibitions	Stage When Prohibition Becomes Mandatory
There shall be no hose washing of walkways, driveways, or parking areas except as needed for sanitary or safety purposes.	All Stages
Water shall not be used to clean, fill or maintain levels in decorative fountains, unless a re-circulating system is used.	All Stages
Restaurants or other public places where food is served or offered for sale, shall not serve drinking water to any customer, unless expressly requested.	All Stages
All water leaks shall be promptly repaired.	All Stages
Lawns and landscape areas shall not be watered between the hours of 10:00 a.m. and 4:00 p.m.	All Stages
The City contracts with the Los Angeles Public Works Department for building construction services for the City. Any water conservation mandates concerning new construction apply to the City of Santa Fe Springs.	All Stages
No water customer shall use water contrary to the provisions stated above.	Stages II through VII
No water customer or user shall use or permit the use of water from the City in an amount in excess of the following projected reductions of the corresponding billing period of the historic base period.	Stages II through VII

Table 18 <i>Stage When Method Takes Effect and Projected Reduction (%)</i>							
Consumption Reduction Customer Group	I	II	III	IV	V	VI	VII
Hospitals	0	0	5	10	10%	10%	20%
Convalescent Homes	0	0	5	10	10%	10%	20%
Schools	0	0	0	10	10%	10%	20%
Hotels and Motels	10	10	10	15	15%	50%	50%
Oil Field Injectors	20	25	30	35	50%	50%	50%

Exceptions. The prohibited uses of water provided for by subsection (a) of this section are not applicable to that use of water necessary for public health and safety or for essential governmental services such as police, fire, and other similar emergency services.

Exceptions. Single family residential customers shall not be required to reduce consumption below 20 billing units per month during Stage II; or below 19 billing units per month during Stage III; or below 17 billing units per month during Stage IV; or below 16 billing units per month during Stage V and Stage VI; or below 14 billing units per month during Stage VII.

Stage Implementation. The City Council shall implement or change any Stage of this plan by resolution which shall be published in a local newspaper of general circulation. Stage I shall take effect upon such publication. Stages II through VII shall take effect with the first billing period after adoption of a Resolution implementing said Stages.

Table 19 <i>Penalties and Charges</i>	
Penalties or Charges	Stage When Penalty Takes Effect
Failure to Comply. Written notice to the customer on or with the water bill	I
Failure to Comply. A surcharge of 10% of the total water bill shall be charged in addition to the regular water charges.	II - IV
First Violation Notice of Failure to Comply. In addition to the regular rate, a minimum over usage charge of \$1.50 per 100 cubic feet of water used over the target quantity shall be charged.	V
Second Violation Notice of Failure to comply. In addition to the regular rate, a minimum over usage charge of \$1.50 per 100 cubic feet of water used over the target quantity shall be charged.	V
Third Violation Notice of Failure to comply. In addition to the regular rate, a minimum over usage charge of \$2.25 per 100 cubic feet of water used over the target quantity shall be charged.	V

Table 19 (Cont'd)
Penalties and Charges

Penalties or Charges	Stage When Penalty Takes Effect
Fourth Violation Notice of Failure to Comply. In addition to the regular rate, a minimum over usage charge of \$4.50 per 100 cubic feet of water used over the target quantity shall be charged.	V
All Subsequent Violation Notices of Failure to Comply. In addition to the regular rate, a minimum over usage charge of \$10 per 100 cubic feet of water used over the target quantity shall be charged.	V
<p>Notice of Failure to Comply. Billing charges shall be calculated as follows:</p> <p><u>Up to and including ¾" meters</u></p> <ul style="list-style-type: none"> * First 16 billing units/month @ current rates plus charges (CRC) * 17 to 20 billing units/month @ CRC plus \$1.00/unit * Over 20 billing units/month @ CRC plus \$2.00/unit <p><u>1" and 1-1/2" meters</u></p> <ul style="list-style-type: none"> * 75% of 2004-05 base period (target quantity) @ Current rates plus charges over target quantity - \$4.50/unit <p><u>2" and larger meters</u></p> <ul style="list-style-type: none"> * 75% of 2004-05 base period (target quantity) @ current rates plus charges over target quantity @\$6.75/unit 	VI
<p>Notice of Failure to Comply. The total billing charges shall be calculated as follows:</p> <p><u>Up to and including ¾" meters</u></p> <ul style="list-style-type: none"> * First 14 billing units/month @ (CRC) * 15 to 18 billing units/month @ CRC plus \$1.00/unit * 18 to 20 billing units/month @ CRC plus \$2.00/unit * Over 20 billing units/month @ CRC plus \$4.00/unit <p><u>1" and 1-1/2" meters</u></p> <ul style="list-style-type: none"> * 50% of 2004-05 base period (target quantity) @ Current rates plus charges over target quantity - \$9.00/unit <p><u>2" and larger meters</u></p> <ul style="list-style-type: none"> * 50% of 2004-05 base period (target quantity) @ current rates plus charges over target quantity @\$11.00/unit 	VII

Note: Above surcharges are in addition to the regular water rates.

Table 20 <i>Water Usage Monitoring Mechanisms</i>	
Mechanisms for Determining Actual Reductions	Type Data Expected
Daily Production Monitoring	The City collects flow meter data from its production facilities on a daily basis.
Weekly Water Production Report	Provides weekly water production quantities to calculate immediate actual water consumption reduction per implemented stage for water reduction. Weekly production estimates will be used to determine compliance with mandated cutbacks from the comparison year.
Monthly Water Production and Production Costs	Provides monthly water production quantities to calculate monthly reduction per implemented stage for water reduction. Provides unaccounted monthly water production cost.
Monthly Analysis of Weekly Reclaimed Water Report	Provides weekly and monthly water production quantities to calculate immediate actual reclaimed water consumption in relation to implemented stage for water reduction.
Voluntary Customer Monitoring	The City's water customers will monitor their own usage if inclined to do so. The City will monitor them on a monthly or bi-monthly basis.

Water Quality Impacts on Reliability

Well #2 is currently inactive. The underlying aquifer has an arsenic level at approximately 11 ppb (g/l). The new arsenic maximum concentration level (MCL) was set by the Environmental Protection Agency (EPA) at ten parts per billion (ppb) in January of 2006 and was adopted by the California Department of Health Services. Well #2 does not meet the State's drinking water regulations effective January 2006.

The loss of Well #2 represents a reduction in water supply of approximately 25%, but has been compensated for with the purchase of additional water from MWD. Well #2 is adjacent to the Heraeus groundwater contamination plume, which is currently being monitored by Central Basin Municipal Water District. The City is strongly considering the immediate construction of a new well in the south side of the City to be active by November 2011. No water quality impacts are anticipated to occur from the activation of this potential new well.

SECTION 6: DEMAND MANAGEMENT MEASURES (DMMs)

The City of Santa Fe Springs Water Utility (City) is committed to continuing programs directed at water conservation and promoting the further use of recycled water. The City makes use of both its own resources and those of the CBMWD to implement Urban Water Management Plan DMMs in serving its customers.

DMM A – WATER SURVEY PROGRAMS FOR SINGLE FAMILY RESIDENTIAL AND MULTI-FAMILY RESIDENTIAL CUSTOMERS

For several years, the City has distributed water conservation kits to residential customers containing faucet aerators, low flow shower heads, toilet tank dams, and information regarding water saving tips. Anyone needing assistance installing the devices is asked to contact the City. The City has continued to have the kits available to customers as replacements for dysfunctional devices or to replace any non-conservation devices.

A comprehensive do-it-yourself water audit guide is made available to customers interested in understanding how their water meter works, how to check for leaks, how to estimate water usage, and how to take water conservation steps. A sample of this guide is presented in Appendix K.

DMM B – RESIDENTIAL PLUMBING RETROFIT

Since 1976, the City has continued an ongoing program of offering a Home Improvement Rebate for energy and resources conservation which includes toilet replacement with ultra-low flow toilets. Presently, the program offers rebates for home improvements from 20% to 50% of the cost depending on family size and gross household income.

DMM C – SYSTEM WATER ANALYSIS AUDITS, LEAK DETECTION, AND REPAIR

The City utilizes a water leak detection program. Inspections for leaks are made daily during meter reading by trained City Personnel including both potable and reclaimed pipelines and meters. When a leak is detected, the appropriate staff is notified and a service request is generated on the City's internal computerized service request system to provide documentation and follow up. Typically, leak repairs are made the same day. Appendix D shows a sample of the field inspection reports and request for service.

Main line water leaks are quickly detected by an observed drop in water pressure monitored by a computerized SCADA system. The SCADA system can alert water personnel about an area that is losing normal system water pressure typically caused by a leak or ruptured pipe. Leaks are repaired immediately. Examples of repairs done in 2010 are attached in Appendix D.

The City's unaccounted water historically ranges between 3% - 7%. This water can be accounted for through uses such as: Fire flows, water main flushing, new construction activities, fire hydrant knockdowns, and fire fighting activities.

Capital Improvement Projects have been progressively implemented in order to replace the few remaining older steel water mains. Any leaks that occur are repaired immediately by City water crews.

DMM D – METERING WITH COMMODITY RATES FOR ALL NEW CONNECTIONS AND RETROFIT OF EXISTING CONNECTIONS

The City's Water Utility requires all water service connections be metered. There are no unmetered connections.

The City requires separate meters for landscaping, new tenant improvements (if applicable), and for all new developments. In older buildings, unless recycled water is used, the property owner utilizes the domestic water meter for landscaping in conjunction with an approved backflow device (such as RPP) to separate the two systems. For all new developments, typically three separate water service lines are requested; one for fire, one for landscape, and another for domestic use. Each new service line requires a separate meter and an appropriate backflow device.

The City employs one full-time water meter tester/repairpersons and one part-time backflow tester. Each meter and backflow device is tested on a predetermined schedule.

Fire service connections utilize a single check (from older, previous requirements) or a currently approved backflow device—double check detector assembly. These devices have a small bypass water meter installed to help identify when water is being used for other than fire protection purposes.

DMM E – LARGE LANDSCAPE CONSERVATION PROGRAMS, INCENTIVES AND REQUIREMENTS

The City has six parks covering over three acres. Four of these parks currently use reclaimed water. The City is very interested in converting the remaining City parks to reclaimed water.

Landscape irrigation is a major use of domestic water. It has been estimated that reducing landscape irrigation by 50% could possibly yield up to a 30% savings of one's total water use. Presently, the City does not have rules in place governing existing parcel landscaping (unless improvements are made to the existing structure).

The City utilizes the Department of Water Resources (DWR) Model Water Efficiency Landscape Ordinance. The City's intent to utilize the DWR's Ordinance was recorded with DWR on September 30, 2010.

In an effort to save water on new construction sites, the City began addressing xeriscape materials and recycled water use in 1989. The following excerpt is taken from the City's landscape guidelines:

“All landscaping designs and plans shall consider xeriscape materials and methods. This means using unthirsty shrubs, trees, ground cover and lawns. In addition, the irrigation design shall include moisture sensor-activated controllers, rain detection devices, and drip irrigation lines.

Regarding grass lawns, on a case-by-case basis, the City will review the extent of lawn areas needed to satisfy the greenbelt requirements along major and secondary highways. On local industrial streets, the lawns areas may be reduced up to fifty-percent (50%) of the required on-site landscape area of development.

On sites fronting a major or secondary highway, the irrigation plan shall be designed to accommodate recycled water.”

Presently, the City continues to retrofit its landscape irrigation systems to use reclaimed water where available.

DMM F – HIGH EFFICIENCY WASHING MACHINE REBATE PROGRAM

The City has a high efficiency washing machine rebate program managed under water conservation programs coordinated by CBMWD. Please refer to CBMWD’s Urban Water Management Plan for details of the program available to the City’s customers.

DMM G – PUBLIC INFORMATION PROGRAMS

The City’s public information program uses materials developed by CBMWD and MWD of Southern California. These materials are made available to our customers by means of direct mailing, City Newsletters, and availability at public facilities. For fiscal year 2009-10, about 48,000 copies of “Envirowise Newsletter” were sent to residents and businesses citywide. Envirowise is a City published newsletter that provides water saving and recycling tips along with outlining programs available to residents. In addition, the City distributes a monthly newsletter with articles addressing water saving measures and helpful tips for residents and businesses. The City delivers an average of 4,500 Water Quality Reports per year providing water quality information to residents and businesses. An example is shown in Appendix E.

The City also provides water-related literature to its customers and visitors at community events via booths, displays, and demonstrations. Water conservation information will begin being included on City water bills starting in 2011. An average of 4500 bi-monthly bills with water conservation messages will account for a total of 27,000 notices a year. The water conservation messages will refer customers to Central Basin Municipal Water District water conservation programs and rebates. A sample of the City’s reformatted water utility bill showing a water conservation message is presented on Appendix H. The City’s water utility bill also includes helpful information such as current water usage in comparison to the previous year’s usage.

DMM H – SCHOOL EDUCATION PROGRAMS

The City reaches out to both primary and secondary schools to provide both technical assistance and educational materials. Water education literature, facility tours, teachers' aids and videos are available to service area schools at no charge. Should a teacher request technical assistance in making classroom presentations, the City will provide appropriate staff. The City has provided on-site age-level education about water conservation to all elementary and middle schools citywide.

DMM I – CONSERVATION PROGRAMS FOR COMMERCIAL, INDUSTRIAL, AND INSTITUTIONAL ACCOUNTS

The City has sponsored seminars and information fairs for commercial and industrial customers. These events provide information and the opportunity to exchange ideas regarding water conservation for their places of business.

All new developments in the City are required to use ultra-low flow toilets. There is no current requirement for switching existing high flow toilets to ultra-low flow toilets.

Many businesses during drought periods have made adjustments to their water usage in order to conserve water. This elevated level of interest in water conservation peaks during times of drought.

The incentive to use recycled water remains an attractive option as there is a 20% cost savings per year in comparison to using potable water.

The City works in conjunction with CBMWD in regards to plumbing retrofitting programs which promote the installation of water conservation devices. The most common water conservation devices installed are: conductivity controllers, high efficiency washing machines, and pre-rinse spray valves. A conductivity controller saves around 2.24 acre-feet of water per year. A high efficiency washer saves approximately 0.23 acre-feet per year, and a pre-rinse spray valve installation can save up to 0.3 acre-feet per year. Please refer to CBMWD's Urban Water Management Plan to see the City's available programs in this area.

DMM J – WHOLESALE AGENCY PROGRAMS

The City does not engage in wholesale programs.

DMM K – CONSERVATION PRICING

For potable water conservation pricing, refer to the City's "Water Shortage Contingency Analysis." For recycled water, there are no current limits on its use.

Sewer service is provided by the Los Angeles County Sanitation District, which has a flat rate for all customer types with the exception of industrial customers. Industrial customers are metered, monitored for water quality, and charged according to the quality and volume of their discharge.

DMM L – WATER CONSERVATION COORDINATOR

The City's limited resources require that several employees share duties in coordinating water conservation measures. Water conservation efforts include field personnel looking for water leaks, office personnel placing requests for repair in the computer system, planning personnel enforcing water conservation landscape policy for new developments, and building and public works inspectors ensuring that water conservation devices are installed and operating correctly.

DMM M – WATER WASTE PROHIBITION.

In 1992, the City adopted a Water Shortage Contingency Plan prohibiting the wasting of water via resolutions 5618 and 5733. This plan has been addressed and incorporated into this UWMP.

DMM N – RESIDENTIAL ULTRA-LOW FLUSH TOILET REPLACEMENT PROGRAMS.

The City works in conjunction with CBMWD to offer our Ultra-low Toilet Replacement Program. Please refer to CBMWD's Urban Water Management Plan for the City's current program in this area.

DEVELOPMENT OF DESALINATED WATER

The City of Santa Fe Springs does not have desalinated water programs at this time. The City is located approximately 30 miles from the coast.

**APPENDIX A:
GROSS WATER USAGE**

Water Consumption (CCF) [NOTE: Includes Reclaim in Cycle 20 Totals]
January 2010 - December 2010

CYCLE	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10
1	13,296		8,986		16,546		22,931		21,439		18,471	
2		11,623		13,303		21,451		23,776		22,808		16,251
3	11,840		10,874		13,426		19,472		20,366		16,141	
4		7,797		8,689		13,997		15,401		14,075		8,895
5	4,055		3,705		4,981		6,096		6,264		5,183	
6		8,340		7,894		10,896		11,412		10,503		8,078
7	6,566		5,369		8,108		12,268		12,036		8,394	
8		8,659		9,097		13,303		12,904		12,127		9,285
9	4,242		3,333		4,730		6,906		7,126		5,926	
10		9,295		9,947		14,544		14,797		14,464		10,815
11	6,829		5,629		7,299		9,054		8,572		7,304	
12		9,424		9,422		12,433		12,516		11,946		9,157
13	9,375		6,863		8,077		9,954		10,162		8,196	
14		12,181		13,328		18,731		18,934		16,766		14,055
15	19,222		17,994		29,376		37,421		36,092		33,282	
16		10,504		12,892		16,991		18,658		16,297		12,708
17	19,286		18,224		23,791		27,163		26,399		23,978	
18		30,668		34,168		43,381		42,829		40,498		31,060
19	16,704		16,312		24,997		30,344		29,991		22,670	
20	53,392		72,468		89,573		88,488		87,423		80,790	
21 (Temp)	1,090		63		519		118		374		290	
Closed	396		611		999		999		285		604	
NWK	12,437		9,106		11,924		13,996		15,430		12,517	
Totals	178,730	165,891	179,993	200,197	243,418	264,472	284,987	269,753	283,034	234,295	243,369	176,267
Grand Total CCF	8044	6220	11948	19470	25242	30260	27760	31065	30367	15847	16988	9063

Residential	92,119
	68,854
	30,284
	57,123
	52,741
	65,375
	32,263
	73,862
	44,687
	64,898
Downey	52,627

Hyd Meters	329
Unpaid Accts	588
Norwalk (not used for res.)	75,410
Res. Total SFS+DWNY only	634,833

Res. % of City Potable, use= 25.47%

Potable = 2,492,132

Reclaim	8044	6220	11948	19470	25242	30260	27760	31065	30367	15847	16988	9063
Reclaim =												232,274

Grand Total = 2,724,406

POTABLE TOTALS ONLY	
Total Calendar Year AF =	5,721 AF
residential (incl. dwncy)=	1,457 AF
commercial =	2,525 AF

Water Consumption (CCF) [NOTE: Includes Reclaim in Cycle 20 Totals]
 January 2009 - December 2009

CYCLE	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09
1	8,041		13,043		27,293		19,574		24,846		19,513	
2		16,491		14,335		22,390		24,073		21,664		17,347
3	7,344		11,866		16,497		15,249		17,885		14,551	
4		9,740		9,192		15,015		16,308		14,776		9,438
5	3,082		4,358		5,761		5,981		6,589		5,243	
6		10,592		9,452		12,418		13,200		11,912		9,636
7	4,697		6,575		10,325		10,676		12,787		9,332	
8		10,268		8,797		12,415		13,983		12,675		10,479
9	2,781		3,967		5,665		5,817		7,083		5,732	
10		12,794		11,301		15,613		15,307		14,193		11,277
11	4,544		5,984		9,006		9,087		9,285		7,979	
12		10,896		9,452		13,155		13,881		11,809		9,539
13	5,850		8,075		10,418		11,485		12,625		12,044	
14		17,862		14,486		21,075		19,929		21,413		15,159
15	11,657		18,344		26,871		28,038		29,933		26,422	
16		13,983		15,053		17,895		18,309		16,381		12,766
17	11,122		19,134		26,798		25,849		28,535		26,700	
18		34,767		33,944		44,889		46,339		42,839		33,558
19	9,927		16,642		27,125		28,513		29,818		26,119	
20	85,273		64,731		78,007		67,426		72,878		95,585	
21 (Temp)												
Closed	428		118		383		41		370		619	
NWK	13,458		11,650		11,770		14,272		14,258		14,433	
Totals	168,204	202,124	167,447	187,264	255,577	242,294	247,911	254,826	258,694	263,247	245,793	193,153
Grand Total CCF	2,686,534											

Residential	83,392
	74,469
	31,014
	67,210
	54,392
	68,617
	31,045
	80,485
	45,885
	68,732
Downey	60,497

852

Hyd Meters	
Unpaid Accts	
Norwalk (not used for res.)	79,841
Res. Total SFS+DWN only	665,738

Res. % of City Potable. use= 27.44%

Potable (CCF) = 2,426,413

Reclaim	11309	10447	12813	22920	32455	26555	31574	31662	28923	22445	19864	9154
Reclaim (CCF)=												260,121

Grand Total = 2,686,534

POTABLE TOTALS ONLY	
Total Calendar Year AF =	5,570 AF
residential (incl. dwmy)=	1,528 AF
commercial =	2,083 AF

Water Consumption (CCF)
January 2008 - December 2008

CYCLE	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	total
1	11,489	19,042	9,755	9,283	11,750	15,124	15,741	17,534	16,975	14,450	13,189	11,119	11937
2	35,684	21,624	27,351	25,330	33,781	38,275	35,804	40,294	55,945	39,656	35,679	28,306	674
3	7,864	6,333	7,389	7,909	8,025	11,496	9,667	12,670	11,357	11,743	8,243	7,232	0
4	5,228	3,674	4,406	4,981	7,943	7,693	9,193	9,290	9,534	8,271	6,037	5,316	0
5	2,344	2,092	2,264	2,071	3,322	3,093	3,719	3,479	3,560	3,344	2,547	2,337	0
6	5,293	4,425	5,043	4,715	7,138	7,663	7,538	8,476	7,281	8,242	5,622	5,419	0
7	2,516	2,196	2,297	3,120	4,654	5,002	5,358	5,684	5,033	5,416	4,271	2,660	0
8	3,620	3,765	4,637	3,810	5,274	5,918	6,003	6,664	5,618	5,776	4,475	4,034	0
9	3,314	3,394	3,610	3,626	4,917	4,752	5,281	5,240	4,873	5,408	4,112	3,370	0
10	5,739	4,092	5,424	5,366	7,210	7,979	8,337	7,772	7,862	7,039	6,356	4,944	0
11	4,385	4,152	4,516	4,503	5,448	5,483	5,767	5,601	5,969	5,428	4,870	3,901	0
12	4,389	3,987	4,610	4,710	5,870	5,833	6,499	6,688	5,789	5,463	5,191	3,694	0
13	5,104	4,812	4,517	5,165	7,194	5,993	7,811	8,024	7,334	6,459	6,242	4,837	0
14	8,912	10,280	9,490	9,776	15,480	13,612	15,661	14,569	15,204	12,083	12,236	8,820	0
15	12,471	10,118	11,874	14,113	18,951	16,146	20,364	19,438	19,142	16,106	15,162	11,561	0
16	11,053	11,071	10,392	12,352	15,335	16,695	15,843	16,004	17,610	15,723	15,734	11,233	0
17	32,270	0	32,990	36,422	44,607	42,176	45,780	50,091	47,164	44,204	39,186	26,578	0
18	32,460	32,856	30,030	32,407	37,225	36,871	30,882	43,690	43,492	31,893	35,648	26,935	0
19	11,153	11,196	12,679	14,738	18,573	15,160	21,748	18,153	18,261	14,791	14,109	9,665	0
20													0
21 (Temp)	852	31	224	677	1,261	1,400	428		118	383	41	3	0
Closed													0
NWIC	13,107		10,705		14,927		13,458		11,650		11,770		0
Totals	220,229	159,140	204,303	203,074	278,885	266,364	310,882	299,261	319,771	261,878	250,720	181,964	75,617
Grand Total CCF	2,958,471												655,025

reclaim usage has been subtracted from each residential cycle

reclaim ccf per res. cycle to subtract

jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	total
90	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	199	0	0	97	370	38	0	0	0	0	0	745
38	25	101	107	260	331	330	387	357	414	302	144	2794
0	0	0	0	0	0	0	0	0	0	0	0	0
1308	380	1093	1655	3054	3432	3627	4169	3342	2755	2189	1485	28457
137	57	366	414	1209	1432	1613	1651	1604	1133	878	212	10506
344	563	849	961	1005	3248	4016	3780	3288	2270	1552	674	23460
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
161	203	208	169	384	40	182	0	1944	73	289	0	3653

reclaim usage has been subtracted from each residential cycle

reclaim ccf per res. cycle to subtract

Residential	Hyd Meters	Unpaid Accts	Norwalk (not used for res.)	Res. Total SFS+DWNY only
97,991				
81,566				
33,427				
74,061				
48,307				
31,037				
41,391				
54,660				
60,023				
62,723				
69,839				

Res. % of City Potable. use= 24.65%

Potable (CCF) =	2,657,410
Reclaim (CCF) =	301,061
Grand Total =	2,958,471

POTABLE TOTALS ONLY	
Total Calendar Year AF =	6,101 AF
residential (incl. dwmy) =	1,504 AF
commercial =	2,304 AF

Water Consumption (CCF)
January 2007 - December 2007

CYCLE	YEAR TOTALS											
	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07
1						16,140		16,771	11,650	19,661	15,061	
2						38,625		42,164	25,077	26,760	42,362	
3								14,069	9,729	10,349	9,977	
4						22,329		11,279		5,866	6,728	
5						4,054	78,316	4,092	12,705	2,585	2,439	
6								8,436	7,457	6,317	5,650	
7						18,842		5,879	4,115	190	3,116	
8								7,324	4,727	4,621	4,564	
9						12,396		4,507	16,183	3,692	4,278	
10							18,483	5,909	9,391	7,179	5,311	
11							5,577	6,926	4,710	4,649	4,077	
12							6,462	6,126	6,000	4,955	4,513	
13						7,341	7,857	6,271	8,842	5,732	5,131	
14						14,504		10,844	21,196	14,282	9,885	
15						21,358		19,693	14,652	16,504	11,468	
16						14,363	45,646	14,176	14,796	10,249	13,022	
17						40,627		34,717	53,774	43,971	34,266	
18						41,509	79,772	39,788	46,221	37,394	35,353	
19						20,991	29,091	13,561	23,616	15,579	12,083	
Downey												
21 (Temp)						2,244		811		2,178		1,144
NWK						18101		14000		13987		
Totals	11,000				13,000	0	293,424	272,015	286,532	297,019	254,522	230,428
Grand Total CCF	3,220,927											

All Potable Meters
Downey 3,033,592
Hyd Meters 106,247
Norwalk (not used for res.) 81,088

Potable (CCF) minus NWK = 3,139,839

Reclaim (CCF) = 340,086

Potable Grand Total (CCF) = 3,220,927

Reclaim	20,752	18,978	18,320	25,356	28,523	34,630	38,910	36,483	26,331	43,185	28,335	20,283
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POTABLE TOTALS ONLY	
Total Calendar Year AF =	7,208 AF
residential (incl. downey) =	1,802 AF
commercial =	3,076 AF

Water Consumption (CCF)
January 2006 - December 2006

CYCLE	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	YEAR TOTALS
1													
2													
3	50,987												
4													
5		60,717	65,290		51,258								
6	12,845			64,407									
7					7,802	83,756							
8			12,224	6,831									
9													
10	15,975	22,887											
11			12,115	12,757	16,828								
12	9,062												
13						35,919							
14	16,439	24,661				13,902							
15			31,899	29,788		17,044							
16					45,851	15,101							
17													
18		97,385											
19	102,665	12,510	82,014	89,584		83,879							
Downey													
21 (Temp)	390	510	565	1,051	127	1,089							
NWK	10,000		15,262		12,003		16,000		13,000	10,000			2,891,532
Totals	218,363	218,670	219,369	204,418	133,869	250,690	16,000	0	13,000	0	10,000	0	74,300
Grand Total CCF		3,042,097											76,265

All Potable Meters
Downey
Hyd Meters
Nonwalk (not used for res.)

Potable (CCF) minus NWK = 2,965,832

Reclaim (CCF) = 305,817

Potable Grand Total (CCF) = 3,042,097

Reclaim	18,318	17,520	13,663	13,388	20,439	27,187	35,983	39,420	42,870	27,908	28,032	21,089
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POTABLE TOTALS ONLY	
Total Calendar Year AF =	6,809 AF
residential (incl. dwyny) =	1,702 AF
commercial =	3,101 AF

Water Consumption (CCF)
January 2005 - December 2005

CYCLE	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05
1												
2						53,378	60,643	51,394	69,609			
3		44,838	40,264							66,182	57,578	
4												
5	48,579	12,571	5,802	57,187			25,179	21,151		10,811		
6					36,705	32,029			38,821			97,652
7				9,931								
8				9,567			22,684	16,637		16,739		
9	16,460			6,268	14,803				19,239	5,082	25,206	
10			19,429									14,474
11	9,366	18,318				33,411	21,969	16,022	17,919	14,201		
12					54,575							
13	8,028		12,515		5,048	14,637	14,453	13,114		11,376	13,335	
14				29,896				15,095	17,505			
15		17,204				33,993	35,887		30,154	29,872		
16			30,233			32,213	16,427	16,725	31,852			
17				71,711					57,035	53,174		
18	91,751				85,668	81,916	75,500	89,576		89,242		
19	9,062	83,443	80,197	62,202	15,357	18,911	14,374	22,653	61,725	57,621	13,894	104,968
20												
21 (Temp)	461	68	0	526	799	663	546	1,943	1,875	660	174	2,008
Closed												
NNWK		11,513		10,271		13,632		21,132		16,662	15,657	
Totals	183,707	187,955	188,440	257,559	245,168	298,997	287,960	300,569	313,882	282,380	230,267	245,327
Grand Total CCF												

reclaim ccf per res. cycle to subtract	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	total
90	99	222	393	714	1752	1752	1566	1888	1748	1048	674		11937
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	199	0	0	97	370	38	0	0	0	0	41		745
36	25	101	107	260	331	330	387	357	414	302	144		2794
0	0	0	0	0	0	0	0	0	0	0	0	0	0
1308	380	1063	1655	3054	3432	3627	4169	3342	2753	2189	1485		28457
137	57	366	414	1209	1432	1613	1651	1604	1133	678	212		10506
344	563	849	981	1905	3248	4016	3780	3298	2270	1552	674		23460
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
161	203	208	169	394	40	182	0	1944	73	289	0		3653

reclaim usage has been subtracted from each residential cycle	Residential
196,925	0
167,964	167,964
117,332	117,332
107,583	107,583
27,603	27,603
65,048	65,048
31,514	31,514
131,206	131,206
67,910	67,910
75,518	75,518

Downey

Hyd Meters
Unpaid Accts

88,867	88,867
988,603	988,603

Res. % of City Potable use = 0.00%

Potable (CCF) = 2,759,815

Reclaim (CCF) = 262,396

Grand Total = 3,022,211

POTABLE TOTALS ONLY
Total Calendar Year AF = 6,336 AF (100%)

Reclaim	14,155	10,919	16,663	22,476	20,439	30,602	40,605	26,459	32,702	24,155	16,919	20,443
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Water Consumption (CCF)
January 2004 - December 2004

CYCLE	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05
Totals	222,700	194,101	206,679	27,100	288,096	298,675	302,752	296,243	322,146	290,136	224,208	232,191
Grand Total CCF	2,905,027											

POTABLE TOTALS ONLY

Total Calendar Year AF = 6,669 AF (100%)

Water Consumption (CCF)
January 2003 - December 2003

CYCLE	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05
Totals	227,614	230,919	203,301	220,792	262,256	260,366	310,115	304,366	318,171	388,668	297,995	210,933
Grand Total CCF	3,235,496											

POTABLE TOTALS ONLY

Total Calendar Year AF = 7,428 AF (100%)

Water Consumption (CCF)
January 2002 - December 2002

CYCLE	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05
Totals	202,871	205,483	251,241	231,199	271,731	387,445	297,601	290,647	318,544	295,480	267,881	258,284
Grand Total CCF	3,278,407											

POTABLE TOTALS ONLY

Total Calendar Year AF = 7,526 AF (100%)

Water Consumption (CCF)
January 2001 - December 2001

CYCLE	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05
Totals	242,478	195,250	223,336	213,949	245,294	279,331	308,571	282,071	320,095	283,500	269,398	237,807
Grand Total CCF	3,101,080											

POTABLE TOTALS ONLY

Total Calendar Year AF = 7,119 AF (100%)

**APPENDIX B:
POPULATION CALCULATION**

than incorporation. Per capita assessed valuation was three to five times greater than in adjacent areas. Tax money collected in Santa Fe Springs would have exceeded the expenditures made in this area.

Finally, in May 1957, the question was put to the voters, who voted for incorporation and elected five councilmen, each representing a separate district.

Santa Fe Springs incorporated with 4.9 square miles. The city now comprises 8.67 square miles and is 87% industrial.

Oil derricks are no longer silhouetted against the skyline. As the oil production has declined, industrial plants have moved in. The high per capita assessed valuation has enabled the city to provide many services to residents as well as to industry that cities with lesser-assessed valuation could not provide.

Located at the intersection of the Santa Ana Freeway (Interstate 5) and the San Gabriel River Freeway (605), Santa Fe Springs is in a strategic position for access to major arteries of transportation connecting Los Angeles and Orange counties.

Population

Community Residents:

1970.....14,750
 1980.....14,520
 1990.....15,520
 2000.....17,500

Business Residents:

2000.....90,000

Available labor force of more than 5 million people in surrounding communities.

Education

SCHOOL DISTRICTS:

Los Nietos School District
 Lillian Maldonado French, Superintendent
 8324 S. Westman Ave.
 Whittier, CA 90606
 (562) 692-0271, Ext. 212

Little Lake City School District
 Dr. Phillip Perez, Superintendent
 10515 S. Pioneer Blvd.
 Santa Fe Springs, CA 90670
 (562) 868-8241, Ext. 223

Whittier Union High School District
 Sandy Thorstensen, Superintendent
 9401 S. Painter Ave.
 Whittier, CA 90605
 (562) 698-8121, Ext. 1001

PRIVATE SCHOOLS:

St. Paul High School
 Lois Maldonado, Director of Alumni and Development
 9635 Greenleaf Ave.
 Santa Fe Springs, CA 90670
 (562) 698-6246, Ext. 727

St. Pius X School
 Margaret Alvarez, Principal
 10855 S. Pioneer Blvd.

COLLEGES AND UNIVERSITIES:

Cerritos College
 Dr. Noelia Vela, President/Superintendent
 11110 Alondra Blvd.
 Norwalk, CA 90650
 (562) 860-2451, Ext. 2204

Rio Hondo College
 Dr. Ted Martinez, Jr.,
 President/Superintendent
 3600 Workman Mill Rd.
 Whittier, CA 90601
 (562) 692-0921

Whittier College
 Sharon D. Herzberger, President
 P.O. Box 634



U.S. Census Bureau
American FactFinder



T1. Population Estimates [11]

Data Set: 2009 Population Estimates

NOTE: For information on errors stemming from model error, sampling error, and nonsampling error, see: <http://www.census.gov/popest/topics/methodology>.

	Santa Fe Springs city, California
Total Population	
July 1, 2009	17,071
July 1, 2008	17,007
July 1, 2007	16,814
July 1, 2006	16,786
July 1, 2005	16,831
July 1, 2004	16,838
July 1, 2003	16,806
July 1, 2002	16,716
July 1, 2001	16,615
July 1, 2000	16,454
April 1, 2000 (Estimates Base)	16,413
April 1, 2000 (Census 2000)	17,438

Source: US Census Bureau, Population Estimates Program
 More Tables and Information: [Population Estimates Program](#)

Note: The April 1, 2000 estimates base reflects changes to the Census 2000 population resulting from legal boundary updates as of January 1 of the estimates year, other geographic program changes, and Count Question Resolution actions. All geographic boundaries for the July 1, 2009 population estimates series are defined as of January 1, 2009. An "(x)" in the Census 2000 field indicates a locality that was formed or incorporated after Census 2000 or was erroneously omitted from Census 2000. See [Geographic Change Notes](#) for additional information on these localities.

2000 Population Formula

US CENSUS BUREAU

adjusted

Residential Population				
SFS residences served by San Gabriel	418 x	$\frac{\text{2000 State census pop. per home}}{3.53} =$	population	
Downey residences served by SFS	286 x	$2.88 =$	824	
<hr/>				
SFS full time Residents (per 2000 census)		(San Gab)	17,438	
		(Downey)	-1,475	
			+824	
Residential Population served by SFS Water Utility Authority			16,787	

1-Jul-09	17,071	18131
1-Jul-08	17,007	18064
1-Jul-07	16,814	17861
1-Jul-06	16,786	17831
1-Jul-05	16,831	17879
1-Jul-04	16,838	17887
1-Jul-03	16,806	17853
1-Jul-02	16,716	17757
1-Jul-01	16,615	17651
1-Jul-00	16,454	17481
April 1, 2000	16,413	17438
April 1, 2000	17,438	ACTUAL CENSUS

2001 Population Formula

US CENSUS BUREAU

adjusted

Residential Population					
SFS residences served by San Gabriel	418 x	$\frac{\text{2000 State census pop. per home}}{3.53} =$	$\frac{\text{population}}{1,475}$		
Downey residences served by SFS	286 x	$2.88 =$	824		
<hr/>					
SFS full time Residents (projected based on 2000 census)				17,651	
				-1,475	
				+824	
Residential Population served by SFS Water Utility Authority				17,000	

1-Jul-09	17,071	18131
1-Jul-08	17,007	18064
1-Jul-07	16,814	17861
1-Jul-06	16,786	17831
1-Jul-05	16,831	17879
1-Jul-04	16,838	17887
1-Jul-03	16,806	17853
1-Jul-02	16,716	17757
1-Jul-01	16,615	17651
1-Jul-00	16,454	17481
April 1, 2000	16,413	17438
April 1, 2000	17,438	

2002 Population Formula

US CENSUS BUREAU

adjusted

Residential Population				
SFS residences served by San Gabriel	418 x	$\frac{\text{2000 State census pop. per home}}{3.53} =$	$\frac{\text{population}}{1,475}$	
Downey residences served by SFS	286 x	2.88 =	824	
<hr style="border: 2px solid black;"/>				
SFS full time Residents (projected based on 2000 census)			17,757	
		(San Gab)	-1,475	
		(Downey)	+824	
Residential Population served by SFS Water Utility Authority			17,106	

1-Jul-09	17,071	18131
1-Jul-08	17,007	18064
1-Jul-07	16,814	17861
1-Jul-06	16,786	17831
1-Jul-05	16,831	17879
1-Jul-04	16,838	17887
1-Jul-03	16,806	17853
1-Jul-02	16,716	17757
1-Jul-01	16,615	17651
1-Jul-00	16,454	17481
April 1, 2000	16,413	17438
April 1, 2000	17,438	

2003 Population Formula

US CENSUS BUREAU

adjusted

Residential Population				
SFS residences served by San Gabriel	418 x	$\frac{\text{2000 State census pop. per home}}{3.53} =$	population	
Downey residences served by SFS	286 x	$2.88 =$	824	
<hr/>				
SFS full time Residents (projected based on 2000 census)				
			(San Gab)	17,853
			(Downey)	-1,475
				+824
Residential Population served by SFS Water Utility Authority				17,202

1-Jul-09	17,071	18131
1-Jul-08	17,007	18064
1-Jul-07	16,814	17861
1-Jul-06	16,786	17831
1-Jul-05	16,831	17879
1-Jul-04	16,838	17887
1-Jul-03	16,806	17853
1-Jul-02	16,716	17757
1-Jul-01	16,615	17651
1-Jul-00	16,454	17481
April 1, 2000	16,413	17438
April 1, 2000	17,438	

2004 Population Formula

US CENSUS BUREAU

adjusted

Residential Population	418 x	$\frac{\text{2000 State census pop. per home}}{3.53} =$	population	
SFS residences served by San Gabriel			1,475	
Downey residences served by SFS	286 x	$2.88 =$	824	
<hr style="border: 2px solid black;"/>				
SFS full time Residents (projected based on 2000 census)			17,887	
		(San Gab)	-1,475	
		(Downey)	+824	
Residential Population served by SFS Water Utility Authority			17,236	

1-Jul-09	17,071	18131
1-Jul-08	17,007	18064
1-Jul-07	16,814	17861
1-Jul-06	16,786	17831
1-Jul-05	16,831	17879
1-Jul-04	16,838	17887
1-Jul-03	16,806	17853
1-Jul-02	16,716	17757
1-Jul-01	16,615	17651
1-Jul-00	16,454	17481
April 1, 2000	16,413	17438
April 1, 2000	17,438	

2006 Population Formula

US CENSUS BUREAU

adjusted

Residential Population			
SFS residences served by San Gabriel	418 x	$\frac{\text{2000 State census pop. per home}}{3.53} =$	population 1,475
Downey residences served by SFS	286 x	$2.88 =$	824
<hr style="border: 2px solid black;"/>			
SFS full time Residents (projected based on 2000 census)		(San Gab)	17,831
		(Downey)	-1,475
			+824
Residential Population served by SFS Water Utility Authority			17,180

1-Jul-09	17,071	18131
1-Jul-08	17,007	18064
1-Jul-07	16,814	17861
1-Jul-06	16,786	17831
1-Jul-05	16,831	17879
1-Jul-04	16,838	17887
1-Jul-03	16,806	17853
1-Jul-02	16,716	17757
1-Jul-01	16,615	17651
1-Jul-00	16,454	17481
April 1, 2000	16,413	17438
April 1, 2000	17,438	

2007 Population Formula

US CENSUS BUREAU

adjusted

Residential Population				
SFS residences served by San Gabriel	418 x	$\frac{\text{2000 State census pop. per home}}{3.53} =$	population	
Downey residences served by SFS	286 x	$2.88 =$	824	
<hr style="border: 2px solid black;"/>				
SFS full time Residents (projected based on 2000 census)			17,861	
		(San Gab)	-1,475	
		(Downey)	+824	
Residential Population served by SFS Water Utility Authority			17,210	

1-Jul-09	17,071	18131
1-Jul-08	17,007	18064
1-Jul-07	16,814	17861
1-Jul-06	16,786	17831
1-Jul-05	16,831	17879
1-Jul-04	16,838	17887
1-Jul-03	16,806	17853
1-Jul-02	16,716	17757
1-Jul-01	16,615	17651
1-Jul-00	16,454	17481
April 1, 2000	16,413	17438
April 1, 2000	17,438	

2008 Population Formula

US CENSUS BUREAU

adjusted

Residential Population				
SFS residences served by San Gabriel	418 x	$\frac{\text{2000 State census pop. per home}}{3.53} =$	population	
Downey residences served by SFS	286 x	$2.88 =$	824	
<hr style="border: 2px solid black;"/>				
SFS full time Residents (projected based on 2000 census)			18,064	
			(San Gab)	
			-1,475	
			(Downey)	
			+824	
Residential Population served by SFS Water Utility Authority			17,413	

1-Jul-09	17,071	18131
1-Jul-08	17,007	18064
1-Jul-07	16,814	17861
1-Jul-06	16,786	17831
1-Jul-05	16,831	17879
1-Jul-04	16,838	17887
1-Jul-03	16,806	17853
1-Jul-02	16,716	17757
1-Jul-01	16,615	17651
1-Jul-00	16,454	17481
April 1, 2000	16,413	17438
April 1, 2000	17,438	

2009 Population Formula

US CENSUS BUREAU

adjusted

Residential Population					
SFS residences served by San Gabriel	418 x	$\frac{\text{2000 State census pop. per home}}{3.53} =$	$\frac{\text{population}}{1,475}$		
Downey residences served by SFS	286 x	$2.88 =$	824		
<hr/>					
SFS full time Residents (projected based on 2000 census)				(San Gab)	18,131
				(Downey)	-1,475
					+824
Residential Population served by SFS Water Utility Authority					17,480

1-Jul-09	17,071	18131
1-Jul-08	17,007	18064
1-Jul-07	16,814	17861
1-Jul-06	16,786	17831
1-Jul-05	16,831	17879
1-Jul-04	16,838	17887
1-Jul-03	16,806	17853
1-Jul-02	16,716	17757
1-Jul-01	16,615	17651
1-Jul-00	16,454	17481
April 1, 2000	16,413	17438
April 1, 2000	17,438	

2010 Population Formula

US CENSUS BUREAU

adjusted

Residential Population	2000 State census pop. per home	418 x	3.53 =	population	1,475
SFS residences served by San Gabriel					
Downey residences served by SFS		286 x	2.88 =		824
<hr/>					
SFS full time Residents (using SFS chamber of commerce numbers)				(San Gab)	18,199
				(Downey)	-1,475
					+824
Residential Population served by SFS Water Utility Authority					17,548

2010	17135	18199
1-Jul-09	17,071	18131
1-Jul-08	17,007	18064
1-Jul-07	16,814	17861
1-Jul-06	16,786	17831
1-Jul-05	16,831	17879
1-Jul-04	16,338	17887
1-Jul-03	16,806	17853
1-Jul-02	16,716	17757
1-Jul-01	16,615	17651
1-Jul-00	16,454	17481
April 1, 2000	16,413	17438
April 1, 2000	17,438	

2020 Population Formula

US CENSUS BUREAU

adjusted

Residential Population	2000 State census pop. per home	3.53 =	population	1,475	2035	22163
SFS residences served by San Gabriel	418 x				2030	21728
Downey residences served by SFS	286 x	2.88 =		824	2025	21302
					2020	20884
					2015	20475
					2010	18199
					1-Jul-09	17,071
					1-Jul-08	17,007
					1-Jul-07	16,814
SFS full time Residents (projected based on 2000 census)				20,884	1-Jul-06	17831
			(San Gab)	-1,475	1-Jul-05	17879
			(Downey)	+824	1-Jul-04	17887
Residential Population served by SFS Water Utility Authority				20,233	1-Jul-03	17853
					1-Jul-02	17757

2030 Population Formula

US CENSUS BUREAU

adjusted

$$\begin{aligned}
 & \text{Residential Population} \\
 & \text{SFS residences served by San Gabriel} \quad 418 \times \frac{\text{2000 State census pop. per home}}{3.53} = \frac{\text{population}}{1,475} \\
 & \text{Downey residences served by SFS} \quad 286 \times 2.88 = 824
 \end{aligned}$$

	1-Jul-09	17,071	17,071	18,131
	1-Jul-08	17,007	17,007	18,064
	1-Jul-07	16,814	16,814	17,861
SFS full time Residents (projected based on 2000 census)	1-Jul-06	16,786	16,786	17,831
	1-Jul-05	16,831	16,831	17,879
	1-Jul-04	16,838	16,838	17,887
Residential Population served by SFS Water Utility Authority	1-Jul-03	16,806	16,806	17,853
	1-Jul-02	16,716	16,716	17,757

2035	22163
2030	21728
2025	21302
2020	20884
2015	20475
2010	18199
2005	17135

**APPENDIX C:
WATER DEMAND USAGE,
PROJECTIONS, AND SAMPLE
CALCULATIONS**

**APPENDIX D:
SAMPLE FIELD LEAK DETECTION
AND REPAIR REPORTS**

MV-RS Special Message Report

ROUTE: 1334265X CYCLE: 13

Changes Only: N

can✓

Customer Name...: MARIA*PEREZ
Customer Address ~~11030 1168~~ CROSSDAL
Account No.....: 11001105

Meter No.....: 0071935557

Chg Special Msg.: POSSIBLE LEAK

*Leaky valve New main reported to F. Espinoza
said he will call contractor / Angel*

*✓
can✓*

Customer Name...: HOWARD*TO
Customer Address 11040 STUDEBAK
Account No.....: 11007805

Meter No.....: 0000539871

Chg Special Msg.: POSSIBLE LEAK

*Customer leak / Angel.
Notified
customer*

Changes Only: N

ROUTE: 1334263X CYCLE: 13

can✓

Customer Name...: FRANCISCO*JIMENEZ
Customer Address 11018 DALWOOD
Account No.....: 21005103

Meter No.....: 0000793183

Chg Special Msg.: POSSIBLE LEAK

Leak on customer side line

can✓

11244 floesmoor

102 x 7.48 = 1,149 gpm

17 units / 2 mos

(562) 900-9977

*Leaky city gasket
Repaired / Replaced meter*

9/22

MV-RS Special Message Report

SPMSG513
SEP 14, 2010 10:33 AM Page: 1

ROUTE: 0334433X CYCLE: 03

Changes Only: N

Customer Name.: RAQUEL*SALCIDO
Customer Address 09202 PIONEER
Account No.: 05017102
Display Code.: 0 None
Special Msg.:

Meter No.: 0000527646

Chg Display Code: 1 Before
Chg Special Msg.: POSSIBLE LEAK

CRM ✓

*Replaced customer meter tail
& meter. (Small leak.)*

9-15-2010

BS

MV-RS Trouble Codes/Text Report
ROUTE ID: 1934837X CYCLE: 19

TROUB381
JUL 28, 2010 11:07 AM Page: 1

Customer Name...: GALLEHER HARDWOOD
Customer Address 09303 GREENLEA
Meter No.....: 0000052131
Account No.....: 66004572
Date.....: 07/28
Reading.....: 0571
MRID.....: 2945
Trbl Code1/Text: 20 Meter Leak

Read Method.....: KEYED
Text Prompt.....: WATR
Time.....: 08:14
Meter Const.....: 000000
Changed Meter...: N

*reported to Rene said
He reported a month ago.*

*12.577 .15 x 7.48 = 1.12 gpm
Leak on customer s/s line*

Customer Name...: FOOD PHARMA
Customer Address 10022 PAINTER
Meter No.....: 0065769006
Account No.....: 26016801
Date.....: 07/27
Reading.....: 1698
MRID.....: 2945
Trbl Code1/Text: 07 Replace Mtr Box

Read Method.....: KEYED
Text Prompt.....: WATR
Time.....: 15:19
Meter Const.....: 000000
Changed Meter...: N

*→ IS THIS THE ONE
IN DRIVEWAY?
IF SO, HOLD OFF.
In driveway I reported
to Alan (sent picture)
7-29-2010*



MV-RS special Message Report

SPMSG449
JUL 26, 2010 3:41 PM Page: 1

ROUTE: 1734216X CYCLE: 17

changes only: N

Customer Name.: LOWES HOME IMPROVEME
Customer Address 13249 FIRESTON
Account No.....: 27001103

Meter No.....: 0000514865

Chg Display Code: 1 Before
Chg Special Msg.: BEES!!! IF BEES

- CALL IF WE CAN'T GET
LARRY READ - NEED ANN TO ESTIMATE
Reported to Larry 7-28-2010 BS

Customer Name.: ROLL PROPERTIES
Customer Address 13320 FIRESTON
Account No.....: 67012733

Meter No.....: 0069495948

Chg Display Code: 1 Before
Chg Special Msg.: POSSIBLE LEAK

1/2" meter leak @ threads on angle
meter stop. Reported to Akim.



MV-RS Trouble Codes/Text report

TROUB360
JUL 21, 2010 3:42 PM Page: 1

ROUTE ID: 1334263X CYCLE: 13

Customer Name..: C E*BUCK
Customer Address 10821 OFFLEY A
Meter No.....: 0000504964
Account No.....: 20014400
Date.....: 07/21
Reading.....: 4795
MRID.....: 2940
Trbl Code1/Text: 20 Meter Leak

Read Method.....: KEYED
Text Prompt.....: WATR
Time.....: 11:26
Meter Const.....: 000000
Changed Meter...: N

*Replined / replaced meter
7-21-2010
348*

MV-RS Special Message Report

SPMSG428
JUL 15, 2010 3:49 PM Page: 1

ROUTE: 0334433X CYCLE: 03

Changes Only: N

Customer Name.: BALTAZAR*LOMELI
Customer Address 09226 PIONEER
Account No.: 05016501 Meter No.: 0000011737
Display Code.: 0 None
Special Msg.:

Chg Display Code: 1 Before
Chg Special Msg.: POSSIBLE LEAK

Replaced meter w/ gaskets

7-19-2010



TURN 508

@

11547 Promenade # 8121 R-1398

MV-RS Special Message Report

SPMSG281
APR 20, 2010 2:06 PM Page: 1

ROUTE: 1234493X CYCLE: 12

Changes Only: N

Customer Name...: JUAN*ARAUZ
Customer Address 10920 GARD AVE
Account No.....: 18023002 Meter No.....: 0000525593
Display Code...: 0 None
Special Msg.....:

Chg Display Code: 1 Before
Chg Special Msg.: POSSIBLE LEAK

R-1681

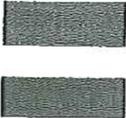
Customer leak, soldered elbow leaking in meter box, will notify ANN, house vacat, left note.

4 -22-2010
[Signature]

Turn SOB
9649 Pioneer #1563

R-700
4-22-2010

**APPENDIX E:
EVIDENCE OF WATER QUALITY
REPORT MAILING TO SANTA FE
SPRINGS WATER USERS**



WHITTIER MAILING SERVICE

12435 MAR VISTA ST, WHITTIER, CA 90602
(562) 698-7795 FAX (562) 696-3145
www.whittiermailng.com

INVOICE

NUMBER: 3252

DATE: 06/16/10

TERMS: NET 10 DAYS
1% PER MONTH (18% PER ANNUM)
LATE PAYMENT CHARGE ADDED
TO PAST DUE INVOICE AMOUNTS.

CITY OF SFS - FINANCE DEPT
PO BOX 2120
11710 TELEGRAPH RD
SANTA FE SPRINGS, CA 90670-3679

CITY326
PO #

DESCRIPTION	TOTAL
WATER QUALITY REPORT	
PREPARE DATA	136.35
ADDRESS 4,254 PIECES; PROCESS FOR PRESORT STANDARD	244.61
DELIVER TO SANTA FE SPRINGS POST OFFICE	40.00
OFFICE DELIVERY OF OVERS	40.00
<p>Approved for Payment Acct # <u>9110-4400</u> Signature <u>[Signature]</u></p>	
<p>Received Finance Dept JUN 17 2010 CITY OF SANTA FE SPRINGS</p>	
TOTAL	460.96

**APPENDIX F:
PROJECTED WATER SUPPLY
ASSESSMENT FOR NEW
RESIDENTIAL DEVELOPMENTS**



NEW BUSINESS

Conditional Use Permit Case No. 647

Request for conditional use permit approval to allow the planned development of a master-planned residential community of 554 dwelling units, (attached and detached dwellings) and for the continuation of oil and gas production activities on the 54.5-acre property bordered by Telegraph Road to the north, Clark Avenue to the south, Bloomfield Avenue to the east and Norwalk Boulevard to west, in the M-2, Heavy Manufacturing Zone, within the Consolidated Redevelopment Project Area.
(Villages at Heritage Springs, LLC.)

RECOMMENDATIONS

Staff recommends that the Planning Commission take the following actions:

1. That the Planning Commission find that Conditional Use Permit Case No. 647 is consistent with the purpose, intent, goals and policies set forth in the City's General Plan and the Consolidated Redevelopment Project Area.
2. That the Planning Commission find that the proposed development is consistent with the certified Environmental Impact Report that was prepared to consider and analyze the environmental impacts related to the development of the site with housing, the continuation of oil and gas production activities and related General Plan Amendment, Change of Zone and Tract Map. Said EIR was certified by the Planning Commission at its meeting of September 26, 2005.
3. That the Planning Commission find that Conditional Use Permit Case No. 647, comprising 54.5 acres, does satisfy the intent and purpose of the PD, Planned Development Overlay Zone District, as set forth in Section 155.325 et seq of the Zoning Regulations.
4. That the Planning Commission approve Conditional Use Permit Case No. 647 subject to the attached conditions of approval.



SB 610 WATER SUPPLY ASSESSMENT In Support of the Townlots Development

CITY OF SANTA FE SPRINGS

Purpose of Report

Law

[SD 610 requires] a city or county that determines a project is subject to the California Environmental Quality Act to identify any public water system that may supply water for the project and to request those public water systems to prepare a specified water supply assessment, except as otherwise specified. The bill would require the assessment to include, among other information, an identification of existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project and water received in prior years pursuant to those entitlements, rights, and contracts. The bill would require for city or county, if it is not able to identify any public water system that may supply water for the project, to prepare the water supply assessment after a perceived contribution. The bill would revise the definition of "project" for the purposes of these provisions, and make related changes.

The bill would prescribe a timeframe within which a public water system is required to submit the assessment to the city or county and would authorize the city or county to seek a writ of mandamus to compel the public water system to comply with requirements relating to the submission of the assessment.

The bill would require the public water system, or the city or county, as applicable, if that entity concludes that water supplies are, or will be, insufficient, to submit the plans for acquiring additional water supplies.

The bill would require the city or county to include the water supply assessment and certain other information in any environmental document prepared for the project pursuant to the act. By establishing duties for counties and cities, the bill would impose a state-mandated local program.

The City of Santa Fe Springs produced this "Water Supply Assessment" (WSA) in support of the proposed Townlots Project to meet the requirements of Water Code Section 10810 and in coordination with the Environmental Impact Report being prepared for the Project.



Project Description and Water Demand

Located in the City of Santa Fe Springs, the Project is a proposed residential development including attached and detached single-family residential housing on 54.6 acres of existing land. The Project is located in the center of the City of Santa Fe Springs, north of the 5 Freeway and east of the 605 Freeway, as shown in Exhibit 1. The land is currently undeveloped and designated as "Industrial" in the latest City of Santa Fe Springs General Plan. Prior to development the land designation would require amendment to "single-family residential-planned development" and "multiple-family residential-planned development". The Project is currently planned to add 650 new dwelling units in eleven parcels. Exhibit 2 depicts and details the proposed land use plan for the Project.

The Project water demand is calculated based on the land use plan (as shown on Exhibit 2) and assumed demand factors as follows:

Table 1 - Estimated Project Water Demand

Land Use Type	Gross Acres (acres)	Dwelling Units (d.u.)	Demand Factor (1) (2)	Average Daily Demand (gpd)	Annual Demand (AFY)
Detached Single-Family Residential	22.1	200	312 gpd/du	62,400	69.9
Attached Single-Family Residential	21.6	450	234 gpd/du	105,300	116.0
Park / Recreation	1.6	-	3.5 AFY/ac	4,969	5.6
Roadway	9.0	-	-	-	-
Total	54.5	650	-	172,699	184

Units: AFY/ac = Acre-Feet per Year per Acre, AFY = Acre-Feet per Year, gpd/du = Gallons per Day per Dwelling Unit

(1) Based upon CMAA estimated water demand factors taken as 120% of the worst water generation factors from the County Sanitation Districts of Los Angeles County

(2) Based upon common industry value of 3.5 AFY/ac for irrigation.

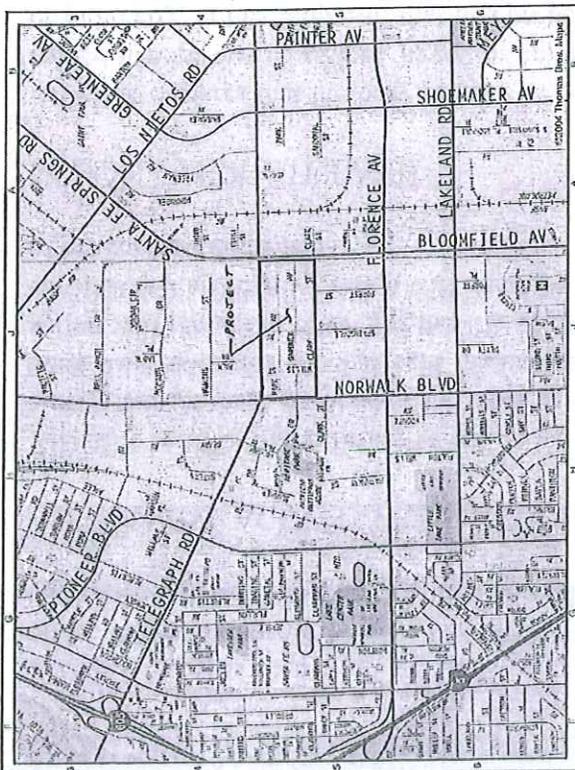


EXHIBIT 1

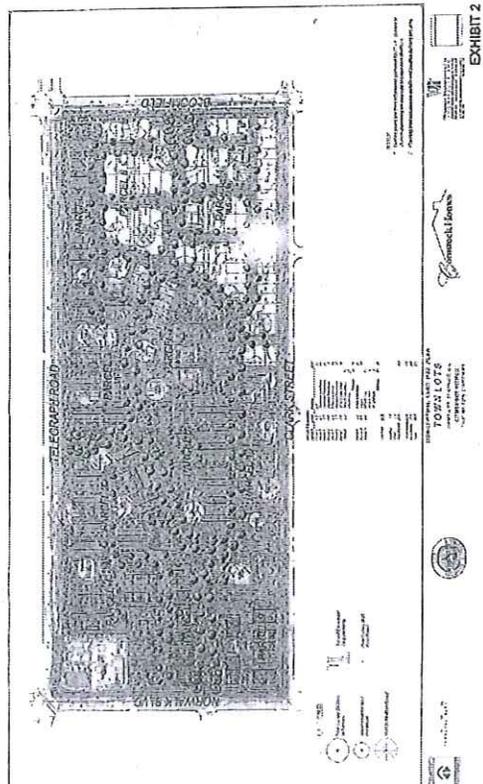


EXHIBIT 2



Project Applicability

Law

16910. (b) Any city or county that determines that a project, as defined in Section 16912, is subject to the California Environmental Quality Act (Division 13) (commencing with Section 21000) of the Public Resources Code) under Section 21080 of the Public Resources Code shall comply with this part.

16911. For the purposes of this part, the following terms have the following meanings:

- (1) "Project" means any of the following:
 - (A) A proposed residential development of more than 500 dwelling units.
 - (B) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
 - (C) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
 - (D) A proposed hotel or motel, or both, having more than 500 rooms.
 - (E) A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
 - (F) A mixed-use project that includes one or more of the projects specified in this subdivision.
 - (G) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.
- (2) If a public water system has fewer than 5,000 service connections, the "project" means any proposed residential, business, commercial, hotel or motel, or industrial development that would account for an increase of 10 percent or more in the number of public water system's existing service connections, or a mixed-use project that would demand an amount of water equivalent to, or greater than, the amount of water required by residential development that would represent an increase of 10 percent or more in the number of the public water system's existing service connections.

A Water Supply Assessment is necessary for the proposed residential development because the number of dwelling units exceeds the criteria set forth in 16912.(b)(1), thereby qualifying it as a "Project" under Water Code Section 16910.



Identification of Public Water System

Law

16910. (b) The city or county, at the time that it determines whether an environmental impact report, a negative declaration, or a mitigated negative declaration is required for any project subject to the California Environmental Quality Act pursuant to Section 21080.1 of the Public Resources Code, shall identify any water system that is, or may become as a result of supplying water to the project identified pursuant to this subdivision, a public water system, as defined in Section 16912, that may supply water for the project. If the city or county is not able to identify any public water system that may supply water for the project, the city or county shall prepare the water assessment required by this part after consulting with any entity serving domestic water supplies whose service area includes the project site, the local agency formation commission, and any public water system adjacent to the project site.

The City of Santa Fe Springs operates the public water system that will supply the proposed Project. The City of Santa Fe Springs receives water from two primary sources: groundwater from the Central Groundwater Sub-Basin of the Coastal Plain of Los Angeles County (Central Basin), and imported surface water from Metropolitan Water District of Southern California via the Central Basin Municipal Water District. Service to the project will be provided through the expansion of facilities within the City of Santa Fe Springs public water system.

Schedule

Law

16910. (c) (1) Subject to paragraph (2), the governing body of each public water system shall submit the assessment to the city or county not later than 90 days from the date on which the request was received. The governing body of each public water system or the city or county if either is required to comply with this act pursuant to subdivision (b), shall approve the assessment prepared pursuant to this section at a regular or special meeting.

(2) Prior to the expiration of the 90-day period, if the public water system intends to request an extension of time to prepare and adopt the assessment, the public water system shall meet with the city or county to request an extension of time, which shall not exceed 30 days, to prepare and adopt the assessment.

(3) If the public water system fails to request an extension of time, or fails to submit the assessment notwithstanding the extension of time granted pursuant to paragraph (2), the city or county may seek a writ of mandamus to compel the governing body of the public water system to comply with the requirements of this part relating to the submission of the water supply assessment.

The City of Santa Fe Springs operates the public water system proposed to serve the Project. Therefore no formal request has been made. This Water Supply Assessment is written in order to expedite/facilitate CEQA review and approval.



Urban Water Management Plan (UWMP) Review

Law

16910. (c) (1) The city or county, at the time it makes the determination required under Section 21080.1 of the Public Resources Code, shall request each public water system identified pursuant to subdivision (b) to determine whether the projected water demand associated with a proposed project was included as part of the most recently adopted urban water management plan adopted pursuant to Part 2.6 (commencing with Section 16610).

(2) If the projected water demand associated with the proposed project was accounted for in the most recently adopted urban water management plan, or the public water system may incorporate the requested information from the urban water management plan in preparing the elements of the assessment required to comply with subdivisions (d), (e), (f), and (g).

(3) If the projected water demand associated with the proposed project was not accounted for in the most recently adopted urban water management plan, or the public water system has no urban water management plan, the water supply assessment for the project shall include a discussion with regard to whether the public water system's total projected water supplies available during normal, single dry, and multiple dry years during a 20 year projection will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing uses.

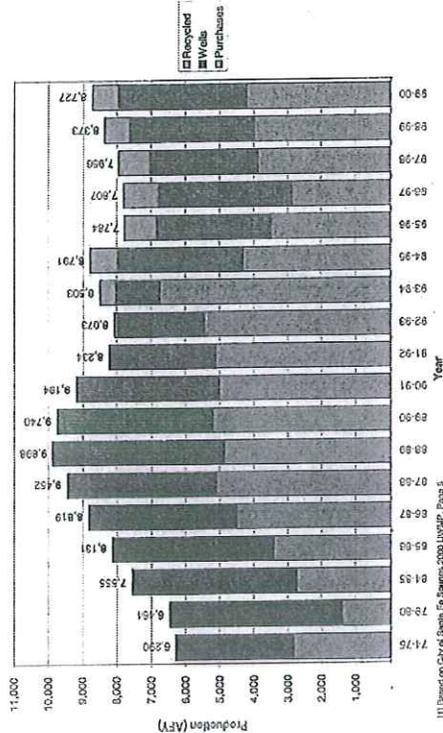
(4) If the city or county is required to comply with this part pursuant to subdivision (b), the water supply assessment for the project shall include a discussion with regard to whether the total projected water supplies, determined to be available by the city or county for the project during normal, single dry, and multiple dry years during a 20 year projection, will meet the projected water demand associated with the proposed project, in addition to existing and planned future uses, including agricultural and manufacturing uses.

The City of Santa Fe Springs adopted their current Urban Water Management Plan on November 21, 2000. Domestic water demands in the City are met through a combination of groundwater pumping and surface water importation. The City of Santa Fe Springs owes the Central Basin, a sub-basin of the larger Coastal Plain of Los Angeles Groundwater Basin. The Central Basin is adjudicated and closely monitored by the California Department of Water Resources. Currently, the City of Santa Fe Springs has water rights to the basin in the amount of 4,005 acre-feet (AF) per year. Santa Fe Springs supplies approximately fifty percent (50%) of its domestic water from imported Metropolitan Water District water, and the other 50% by groundwater, and approximately 5% by recycled water. However, imported surface water supply from Metropolitan Water District is subject to cutbacks during dry years.

Historical annual water production for the City of Santa Fe Springs is shown in the 2000 Urban Water Management Plan (UWMP). In 1999 to 2000 the last recorded year in the UWMP, the City of Santa Fe Springs produced 8,727 acre-feet of water. A total of 169 acre-feet of recycled water was accounted for in the calculation. As shown in Exhibit 3, the City of Santa Fe Springs water demands continue to rise, but the use of recycled water is reducing the increase in domestic water demand.



Exhibit 3 - City of Santa Fe Springs - Past Water Use [1]



[1] Based on City of Santa Fe Springs 2000 UWMP, Page 5



As the most recent version of the City of Santa Fe Springs Urban Water Management Plan is from 2000, information on recent water use by the City was referenced from the Central Basin Municipal Water District's Water Use Report Fiscal Year 2003-2004. Table 2 lists the water use information provided:

Table 2
Recent Water Use (1)
(Acre-Foot/Year)

Water Supply Source	FY 00-01	FY 01-02	FY 02-03	FY 03-04
Non-Interrupted (Surface) Water	3,408	3,385	4,630	3,652
Groundwater Pumped	4,158	4,265	3,504	3,009
Recycled Water	854	693	607	774
Total	8,417	8,344	8,741	7,435

FY = Fiscal Year
(1) Based on CBMWD's Water Use Report Fiscal Year 2003 - 2004

The City of Santa Fe Springs projects the water supplies for the years 2005 to 2020 in their 2000 Urban Water Management Plan. The table provided in the UWMP has been recreated as Table 3:

Table 3
Projected Water Supplies (1)
(Acre-Foot/Year)

Water Supply Source	2005	2010	2015	2020
Purchased - MWD	3,691	3,837	3,857	4,000
Purchased - Whittier	500	500	600	600
Groundwater Pumped	4,035	4,035	4,035	4,035
Recycled Water	1,200	1,600	2,000	2,400
Total	9,426	9,972	10,502	11,035

(1) Based on City of Santa Fe Springs 2000 Urban Water Management Plan

As shown in Table 3 the City of Santa Fe Springs plans to provide water for the future through increasing the domestic and recycled water purchased from the Central Basin Municipal Water District. The most reliable source of water to the City is its supply from the groundwater basin. The Central Basin is adjudicated, and the City of Santa Fe Springs has water rights in the amount of 4,035 acre-foot per year. During a dry year the City is able to withdraw as much as 20% above its entitlement so long as it underpumps and/or purchases (or leases) water rights in the basin for that amount for the following year.

The Towelsite Project is not specifically discussed in the City of Santa Fe Springs Urban Water Management Plan. Therefore, in accordance with Water Code 10610(c)(3) a discussion of the public water systems projected water demands in normal, single dry and multiple dry water years is necessary. Within the City of Santa Fe Springs 2000 UWMP water reliability during dry year scenarios was analyzed from the base year of 1999 to 2000. The table from the UWMP has been recreated as Table 4 of this report based on the Metropolitan Water District's "outback" assumptions as used previously.



Table 4
Supply Sources and Worst Case Supply Projections
Estimated Supply (Acre Feet)

Source of Supply	Actual WY 06-06	12 Months WY 07-07	24 Months WY 07-09	36 Months WY 08-09
Allowed Groundwater Pumping Allocation	4,035	4,035	4,035	4,035
Purchased from CBMWD	3,691	3,322	3,584	3,848
Recycled Water	1,200	1,290	1,390	1,440
Total Supply	8,926	8,637	9,009	9,323
Demand (2)	8,926	8,637	8,637	8,637
Available Supply Shortfall	0	402	1,174	1,645
Resulting Outback	-	5%	15%	27%

(1) Based on table provided on Page 3 and 7 of the 2000 City of Santa Fe Springs UWMP
(2) Based on 113 AF increase in supply per year between Years 2005 and 2010 of the table on Page 3 of the 2000 City of Santa Fe Springs UWMP.

Table 4 utilizes information provided in the 2000 UWMP to determine the required outbacks necessary to supply water under a multiple dry year scenario. The City of Santa Fe Springs outlines a water shortage contingency plan on Page 8 of the 2000 UWMP in order outline how the resulting outbacks would be performed. Based upon the contingency plan and Table 4, a multiple dry year event beginning in 2005 would create a Phase I outback in 2008 and Phase II to V outbacks in years 2007 and 2009.

The City has worked with Central Basin Municipal Water District to implement Water Demand Management Measures (DMMs) to increase conservation and water recycling by customers. The DMMs discussed in the 2000 UWMP are the following:

- Interior and Exterior Residential and Landscape Water Audits
- Landscape Water Conservation Requirements
- Plumbing Retrofitting
- Distribution System Leak Detection and Repair
- Metering with Commodity Rates
- Public Information and School Education
- New Commercial and Industrial Water Usage Review
- Ultra Low Flow Toilet Replacement
- Water Waste Prohibition

The City of Santa Fe Springs as a relatively built-out City, also plans to take the following steps to reduce the severity of dry year scenarios for the next 20-year window:

- Increase the utilization of recycled water to "free up" potable water for other uses
- Continue work with Central Basin Municipal Water District to further promote recycled water use
- Utilize the Water Shortage Contingency Plan in the event of dry year conditions
- Implementation of the Water Demand Management Measures (DMM) to promote conservation and water recycling



Water supply to the City of Santa Fe Springs is largely dependent on the Central Basin Municipal Water District. CBMWD has taken significant steps since its formation in 1952 to ensure reliable water supply is provided to Los Angeles County. Included as an attachment to this report is Appendix A of the *Watermaster Service in the Central Basin Los Angeles* (October 2002), which details the history of water supply to the Central Basin area. Both the City of Santa Fe Springs and Central Basin Municipal Water District have proven to meet demands in the past, and continue to take steps to ensure demands can be met in the future.

Water Supply Entitlements, Water Rights or Service Contracts

Law

10910. (4) (1) The assessment required by this section shall include an identification of any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and a description of the quantities of water received in prior years by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (k), under the existing water supply entitlements, water rights, or water service contracts.

(2) An identification of existing water supply entitlements, water rights, or water service contracts held by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (k), shall be demonstrated by providing information related to all of the following:
(A) Written contracts or other proof of entitlement to an identified water supply.
(B) Copies of a capital outlay program for financing the delivery of a water supply that has been adopted by the public water system.
(C) Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply.
(D) Any necessary regulatory approvals that are required in order to be able to convey or deliver the water supply.

The City of Santa Fe Springs currently has water supply entitlements for groundwater supply from the Central Basin, and surface water from Metropolitan Water District via the Central Basin Municipal Water District. Recycled water purchased from Central Basin Municipal Water District has also become a steadily increasing supply source for the City as the recycled water distribution system continues to be expanded to reach new customers.

Groundwater

The City of Santa Fe Springs receives groundwater from the Central Basin, a sub-basin of the Coastal Plain of Los Angeles County. The Central Basin is adjudicated, and as a result of the "Judgment" of adjudication the City of Santa Fe Springs owns water rights to annually pump 4,035 acre-foot per year. Based on assumptions added to the Judgment, the City is able to carryover 20% of its water rights from the following year, if not fully utilized. The City is also able to pump 20% more water than it has rights to, so long as during the following year the City underpumps or purchases water rights from the exchange pool to make up the difference.



Surface Water

The City of Santa Fe Springs is a member agency of the Central Basin Municipal Water District (CBMWD) and receives its supply of imported Metropolitan Water District from CBMWD. As discussed in the City of Santa Fe Springs' 2000 Urban Water Management Plan, the imported Metropolitan Water District water serves approximately 45% of the water supply demand. The supply from Metropolitan Water District is subject to drought condition outbacks. Through the expansion of the recycled water system the City of Santa Fe Springs plans to decrease the percentage of domestic water demand met from the Metropolitan Water District to increase supply reliability during dry years.

Recycled Water

The City of Santa Fe Springs wastewater collection system delivers flows to the County Sanitation Districts of Los Angeles County sewer system. When treated at the County Sanitation facilities a portion of the flow is recycled for use as recycled water. The Central Basin Municipal Water District purchases the recycled water, and wholesales it to its recycled water customers. The City of Santa Fe Springs is one of several agencies that purchases recycled water from Central Basin Municipal Water District. Between 1993 and 1999 the City of Santa Fe Springs' recycled water supply ranged from approximately 8% to 13% of its total production. During the fiscal year of 1999-2000 the City supplied 700 acre-feet of recycled water supply. It is projected in the 2000 UWMP that the potential recycled water usage is approximately 2,400 acre-feet.

Groundwater - Basin Description, PWS Pumping, and Sufficiency Analysis

Law

10910. (f) If a water supply for a proposed project includes groundwater, the following additional information shall be included in the water supply assessment:

(1) A review of any information contained in the urban water management plan relevant to the identified water supply for the proposed project.

(2) A description of any groundwater basin or basins from which the proposed project will be supplied. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrawn or has projected that the basin will become overdrawn if present management conditions continue, the most current bulkheads of the department that characterize the conditions of the groundwater basin, and a detailed description by the public water system or the city or county if either is required to comply with this part pursuant to subdivision (b), of the efforts being undertaken in the basin or basins to eliminate the long-term overdraft condition.





(3) A detailed description and analysis of the amount and location of groundwater pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), for the past five years from any groundwater basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), from any basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(5) An analysis of the sufficiency of the groundwater from the basin or basins from which the proposed project will be supplied to meet the projected water demand associated with the proposed project. A water supply assessment shall not be required to include the information required by this paragraph if the public water system determines, as part of the review required by paragraph (1), that the sufficiency of groundwater necessary to meet the initial and projected water demand associated with the project was addressed in the description and analysis required by paragraph (4) of subdivision (b) of Section 16611.

UWMP Review

The Central Basin is adjudicated, with the City of Santa Fe Springs owning the rights to annually pump 4,035 acre-feet per year. The Central Basin became adjudicated with the passing of the "Judgment" on October 11, 1955. With the passing of the Judgment the California Department of Water Resources became the Watermaster to the basin. Based on amendments to the Judgment, the City is able to carryover 20% of its water rights from the following year, if not fully utilized. The City is also able to pump 20% more water than it has rights to, so long as during the following year the City underpumps or purchases water rights from the exchange pool to make up the difference. The exchange pool is a resource available to water purveyors supplied by the Central Basin, added as a provision to the Judgment to allow for water rights to be exchanged or leased from entities possessing more water rights than necessary.

Groundwater Basin Description

The Central Basin is one of two basins that comprise the Coastal Plain of Los Angeles County. The Central Basin underlies approximately 270 square miles. It is bounded by the Hollywood Basin, Elysian, Repetto, Marced and Puente Hills, the Los Angeles County / Orange County boundary, and by the Newport Inglewood fault line to the south and west. The Central Basin is composed of four sections; the Los Angeles Forebay, the Montebello Forebay, the Whittier Area and the Pressure Area. The majority of the Central Basin is composed of the Whittier and Pressure Areas, where the confined aquifers allow minimal recharge from surface water. However, each of the forebays contain unconfined aquifers, where percolation of water from the surface can serve to replenish the basin. See the attachments from the

¹Water Replenishment District of Southern California, "An Introduction to the Hydrogeology of the Central and West Coast Basins" - Technical Bulletin, Fall 2004.



California Department of Water Resources and Water Replenishment District of Southern California for identification of the Central Basin and its four sections, and tables showing historic pumping information.

It is estimated that groundwater was first drawn from the Central Basin around the year 1870. Due to the growth in the Los Angeles area, the demand from the basin eventually exceeded its natural recharge. This led to the formation of the Central Basin Water Association in 1950. In 1952 the Central Basin Municipal Water District was formed to distribute water from the Colorado River to the area. Two years later the district was annexed into the Metropolitan Water District of Southern California (MWD) service area making distribution possible. Another result of the lowering of the groundwater levels was the formation of the Central and West Basin Water Replenishment District in 1959. Today that District is referred to as the Water Replenishment District of Southern California.

The adjudication of the Central Basin was first sought January 2, 1952 through the filing of Case No. 785,656 in the Superior Court of Los Angeles. Adjudication of the basin was first established with the "Order Pursuant to Stipulation and Interim Agreement and Petition for Order" signed on September 20, 1952 that gave control over groundwater pumping from the basin and appointed the California Department of Water Resources as the Watermaster. After the preliminary agreement was met the principal parties involved in the adjudication continued holding meetings as a prerequisite to the filing for a stipulated (final) judgment from the Court. The case went to trial in 1955 and the "Judgment" was signed October 11, 1955.

The "Judgment" preserved the California Department of Water Resources as the Watermaster of the basin, and led to the delineation of water rights by agency. As a result of the Judgment, the City of Santa Fe Springs has a water right for 4,035 acre-feet on a yearly basis. Amendments to the Judgment have provided flexibility in groundwater supply through the development of the exchange pool and carryover / overproduction provisions. The exchange pool is a resource available to water purveyors supplied by the Central Basin, it was also added as a provision to the adjudication judgment to allow for water rights to be exchanged or leased from entities possessing more water rights than necessary. The carryover / overproduction provision allows each agency to carryover 20% of its water rights from the following year, if not fully utilized, and pump 20% more water than it has rights to, so long as during the following year the City underpumps or purchases water rights from the exchange pool to make up the difference.

Historical Production and Well Sites

The City of Santa Fe Springs draws groundwater from two primary operation wells, and has a third well which is currently dormant. The distribution system for the City of Santa Fe Springs includes two zones: Zone 1 north of Imperial Highway, and Zone 2 south of Imperial Highway. The Townships Project is located in Zone 1. Well Site #1 is located in Zone 1 near the intersection of Devo Road and Statton Avenue. Well Site #2 is located in Zone 2 near the intersection of Cresswell Road and Alondra Boulevard. Historical production figures from each of the well sites was provided by the City of Santa Fe Springs, and are the following:



Table 5
Well Production Data
City of Santa Fe Springs
1999 to 2004
(AFYR)

Fiscal Year	Well No. 1	Well No. 2	Total
1999 - 2000	1,658	2,223	4,081
2000 - 2001	1,684	1,827	3,511
2001 - 2002	1,893	1,471	3,364
2002 - 2003	1,609	2,198	4,007
2003 - 2004	1,735	2,117	3,852
Total Per Well	9,179	9,535	18,715
Average Per Well	1,836	1,907	3,743

Analysis of Sufficient Groundwater

The City of Santa Fe Springs groundwater supply is dependent upon the management of the Central Basin. Both the Department of Water Resources and the Water Replenishment District of Southern California have been working since the passing of the adjudication Judgment in 1955 to ensure sufficient groundwater is available in the Central Basin. Both agencies as well as the Central Basin Municipal Water District have worked closely to make decisions and develop programs to ensure sufficient groundwater is maintained in the Central Basin. A summary of the significant steps, decisions or programs is as follows:

- Purchasing imported water - from Metropolitan Water District of Southern California and the Santa Water Project
- Recharging the Basins - through water spreading and in-lieu replenishment
- Halting sea water intrusion - through the development of the Alton Hills Barrier Project currently operated by Los Angeles County Department of Public Works which generates a fresh water pressure ridge and extracts saline water to protect the groundwater basin from intrusion
- Developing the exchange pool and carryover / overproduction provisions - to increase the flexibility and distribution of the available groundwater supplies



Primary Issue for Assessment - Conclusion

Whereas,

- (1) The City of Santa Fe Springs has been identified as the public water supplier for the Townships Project, and
- (2) The development is proposed on land previously zoned for industrial uses, therefore
- (3) The Project demand is assumed to be part of the projected growth of the City and
- (4) The estimated demand for the Project represents a net increase of approximately 194 acre-feet of water demand annually, and
- (5) The Project demand represents less than a three (3) percent increase in demand to the City of Santa Fe Springs distribution system, and
- (6) The City of Santa Fe Springs currently receives water from the following sources:
 1. Groundwater - from the Central Basin which is managed by the Department of Water Resources and the Water Replenishment District of Southern California
 2. Domestic water - from Metropolitan Water District of Southern California via Central Basin Municipal Water District
 3. Recycled water - purchase from Central Basin Municipal Water District
- (7) The City of Santa Fe Springs continues implementation of their Urban Water Management Plan goals to increase recycled water demand and work with Central Basin Municipal Water District to ensure sufficient water is provided to customers.

Upon evaluation of the demands estimated from proposed Townships Project and the information summarized in this Water Supply Assessment, the City of Santa Fe Springs concludes that sufficient water supply exists to support the Project.

References

The following references were used in support of this report. (See Attachments)

1. California Department of Water Resources, "Coastal Plain of Los Angeles Groundwater Basin, Central Subbasin" - California's Groundwater Bulletin 118
2. California Department of Water Resources, "Watermaster Service in the Central Basin Los Angeles County" - Appendix A, October 2002.
3. Central Basin Municipal Water District - "Water Use Report - Fiscal Year 2003-2004"
4. City of Santa Fe Springs, "2000 Urban Water Management Plan", December 2000
5. Water Replenishment District of Southern California, "An Introduction to the Hydrogeology of the Central and West Coast Basins" - Technical Bulletin, Fall 2004.





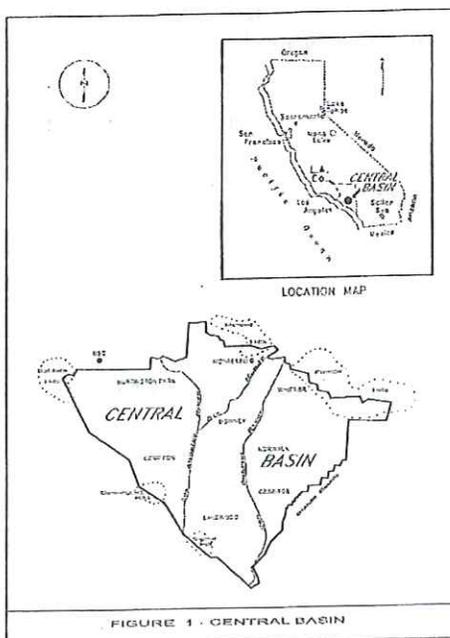
ATTACHMENTS

Attachments – California Department of Water Resources

1. Central Basin (Location Map) – Figure 1 from "Watermaster Service in the Central Basin Los Angeles County Water", October 2002.
2. Central Basin (Total Basin Extractions) – Figure 7 from "Watermaster Service in the Central Basin Los Angeles County Water", October 2002.
3. Central Basin (City of Santa Fe Springs Extractions for Fiscal Year 01-02) – Page 52 from "Watermaster Service in the Central Basin Los Angeles County Water", October 2002.
4. California Department of Water Resources, "Coastal Plain of Los Angeles Groundwater Basin, Central Subbasin" - California's Groundwater Bulletin 118.
5. Appendix A - Continuing History of Watermaster Service from "Watermaster Service in the Central Basin Los Angeles County Water", October 2002.

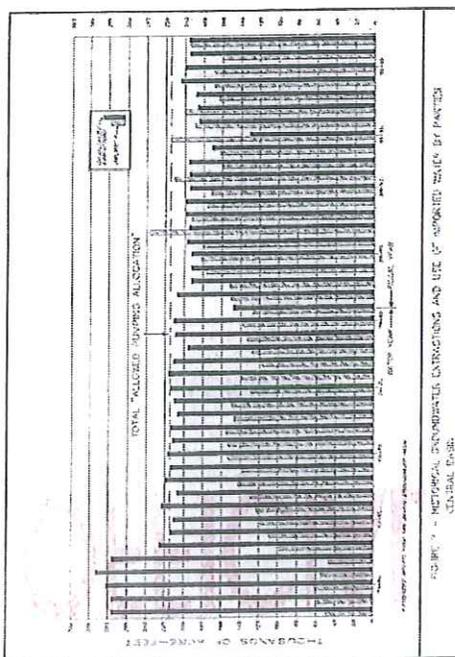
CENTRAL BASIN

OCTOBER 2002



OCTOBER 2002

CENTRAL BASIN



Impairments

Water Quality in Public Supply Wells

Constituent Group ^a	Number of wells sampled ^b	Number of wells with a concentration above an MCL ^c
Inorganics - Primary	316	15
Radical	316	1
Nitrates	316	2
Pesticides	222	0
VOCs and SVOCs	344	43
Inorganics - Secondary	316	113

^a A description of each member in the constituent groups and a generalised discussion of the relevance of these groups are included in California's Groundwater - Bulletin 118 by DWR (2003).
^b Represents distinct number of wells sampled as required under DHS Title 22 program from 1991 through 2000.
^c Each well reported with a concentration above an MCL was confirmed with a second detection above an MCL. This information is included as an indicator of the type of activities that cause a combination in a given basin. It represents the water quality at the sample location. It does not indicate the water quality delivered to the consumer. More detailed drinking water quality information can be obtained from the local water purveyor and its annual Consumer Confidence Report.

Well Production characteristics

Municipal/irrigation	Well yields (gallons)
	Total depths (ft)
Domestic	
Municipal/irrigation	

Active Monitoring Data

Agency	Parameter	Number of wells measurement frequency
USGS	Groundwater levels	90
DWR	Groundwater levels	87
Los Angeles County Public Works	Groundwater levels	212 (1/mon)
USGS	Discharge water quality	84
Department of Health Services and Cooperation	Title 21 water quality	214

Last update 2/27/04

Basin Management

Groundwater management	Control Basin was adjudicated in 1965, and the Department of Water Resources was appointed Watermaster. Every month extractions are reported to the Watermaster by each individual pump. This allows the Watermaster to regulate the water rights of the subsists. (DWR 1999)
Water agencies	
Public	City of Bellflower, Bellflower-Gomeral MWD, City of Compton, City of Huntington Park, City of Long Beach, City of Los Angeles DWP, City of Manhattan, City of Paramount, City of Pico Rivera, City of Signal Hill, Santa Fe Springs, Santa Fe Springs LA County WMA, City of Signal Hill, South Norwalk ID, City of South Gate, City of Vernon, City of Whittier. (DWR 1999)
Private	California American Water Company, Montebello Local Water Company, Bellflower Home Garden Water Co., California West Service, Lynwood Park MWD, Alhambra MWD, Park Water Company, Pacific Water Company, San Gabriel Valley Water Company, Southern California Water Company, Tract No. 160 Water Company, Tract 248 MWD, Western Water Company. (DWR 1999)

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California State Water Resources Board (SWRB). 1952. Central Basin Investigation. Bulletin No. 1.

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2000 Engineering Survey and Report.

Errata

Changes made to the basin description will be noted here.

Last update 2/27/04

APPENDIX A

CONTINUING HISTORY OF WATERMASTER SERVICE

History of Water Resources Development

More than one hundred years ago the Los Angeles Coastal Plain was on the threshold of a sharp increase in population. The key to its future was water.

A shortage of sufficient year-round surface water in the Central Basin forced the development of groundwater sources. As early as 1870, water users had tapped the artesian wells and springs east of the Newport-Inglewood Uplift. When those wells stopped flowing, users were forced to drill shallow wells, which supplied enough water to continue development and economic growth.

Groundwater development increased dramatically in 1909 with the advent of the deep-well turbine pump. Its tremendous adaptability and superior operating characteristics placed efficient water wells within economic reach of everyone. In time, reliable water supplies attracted industry and agriculture. Eventually, however, the demand for groundwater exceeded the natural replenishment of the Central Basin.

The overdraft affected the groundwater basin by lowering the water levels and by causing oceanfront areas to be subjected to sea water intrusion.

The deteriorating groundwater situation in the Central Basin and the adjoining West Coast Basin led to the formation of the Central Basin Water Association in 1950, similar to the water association in the West Coast Basin. This led to a plan to:

1. Provide supplemental water to major producers;
2. Limit groundwater extractions from the Central Basin; and
3. Create an exchange water pool to provide groundwater pumping rights for users lacking access to other supplemental water supplies.

Step 1 was realized in 1952 when the Central Basin Municipal Water District was formed to distribute water from the Colorado River. The district was annexed to The Metropolitan Water District of Southern California (MWD) in 1954, and Colorado River water soon flowed into the Central Basin. State Water Project water was first delivered in 1973.

The West Basin and the Central Basin Water Associations were largely responsible for the creation of the Central and West Basin Water Replenishment District (CWBWRD) in 1959. This special district covers 420 square miles of the Central and West Coast Basins (Coastal Plain) of Los Angeles County. Its objective is to replenish and maintain

the groundwater basins by purchasing imported water, recharging the basins, and halting sea water intrusion.

On January 2, 1962, the CWBWRD filed Case No. 788,656 in the Superior Court, County of Los Angeles, naming more than 700 parties as defendants. It sought to obtain quiet title to the right to use groundwater and regulate withdrawals from the Central Basin to protect the water supply from deterioration.

Adverse groundwater conditions and the indefinite period before final adjudication prompted the Central Basin Water Association to draft an interim agreement curtailing extractions from the Basin. By September 1962, the proposed agreement had been approved by a sufficient number of water producers (producers owning over 75 percent of the Assumed Relative Rights within the Basin) to guarantee control over groundwater pumping in the Basin. On September 28, 1962, the Court signed the "Order Pursuant to Stipulation and Interim Agreement and Petition for Order" and appointed the Department of Water Resources (DWR) as Watermaster.

To avoid the protracted litigation experienced by other Watermaster service areas in Los Angeles County, the attorneys representing principal parties held monthly meetings to work out a settlement. A stipulated judgment was drafted. Approval by public utility water companies and other producers represented well over 200,000 acre-feet, 75 percent, of the total rights within the Basin. This was a prerequisite to filing the stipulated judgment with the Court.

A pretrial hearing was held in March 1965, and on May 17, 1965, the case went to trial before Judge Edmund M. Moor. After a week's testimony on engineering, geology, hydrology, and sale yield of the Basin and arguments on water right entitlement, the case was continued to August 25, 1965. Shortly thereafter, Judge Moor appointed DWR as Watermaster. The final Judgment was signed on October 11, 1965 and became effective on October 1, 1965.

The Judgment was amended on March 21, 1980, to provide for a transition in the administrative year from a water year (October 1 to September 30) to a fiscal year (July 1 to June 30). Under the Judgment, this transition in turn contained a "short" administrative year of nine months - October 1, 1980, to June 30, 1981. The administrative year starting July 1, 1981, was on a fiscal year basis.

The Judgment was again amended on July 6, 1985, modifying the annual budget (\$20 minimum assessment) and exchange pool provisions. The second amended Judgment of May 6, 1991, modified the carryover and overproduction provisions (to 20 percent or 20 acre-feet from 10 percent or 10 acre-feet), defined drought carryover, and provided for exemptions for extractors of contaminated groundwater.

On January 12, 2001 by order of Watermaster, a Non-Consumptive Use Permit No. 2000-01 was issued by the Water Replenishment District of Southern California to the Southeast Water Coalition for the "Central Basin Early Remediation Project" to remedy

or ameliorate groundwater contamination that originated in the San Gabriel Valley and has flowed into the northeast portion of the Central Groundwater Basin.

Watermaster Service

Watermaster Service is administered by DWR in accordance with Part 4, Division 2, of the California Water Code. Watermaster service areas are created by DWR, either at the request of water users or by order of the Superior Court. The first Watermaster service area was formed in September 1929.

Once a month, every groundwater pump reports its extractions to the Watermaster. This makes it possible to update the water right account (Watermaster Water Production Summary) by computing the amount pumped during the previous month, the amount pumped during the current fiscal year, and the amount that can legally be pumped during the remainder of the year. A copy of the Watermaster Water Production Summary is mailed to the pumpers each month.

If electric meter readings are reported along with water meter readings, electric power consumption can be correlated with water production. Erratic or rapidly increasing electric power consumption vs. water production, for instance, may suggest an inefficient pump, system losses, or an inaccurate or malfunctioning water meter.

The Watermaster's field staff schedules tests to determine water meter accuracy on every active well at least once every two years. Accurate measurement of groundwater extractions is absolutely necessary for the success of the Basin's management plan. All available means, including system efficiency tests, are used to confirm water meter test results. Results of each test are furnished to the well owner. If a meter is inaccurate beyond 45 percent, it must be repaired within 30 days. Follow-up tests on repaired meters and initial tests on new meters are scheduled whenever necessary. Parties may also request a meter test at any time.

Water Replenishment District of Southern California

The Central and West Basin Water Replenishment District changed its name to Water Replenishment District of Southern California (WRD). WRD is an active water conservation organization in Los Angeles County. It is responsible for replenishing the groundwater supply to both the Central and West Coast Basins.

The creation of water replenishment districts is a statutory procedure established by the Legislature. Division 18 of the California Water Code describes the duties and obligations of such a district, which has powers well suited to solving groundwater problems, whether they be quality- or quantity-oriented.

WRD is comprised of a Board of Directors and a small staff. It is actively engaged in several replenishment programs. These programs, i.e., water spreading, barrier operation, and in-lieu replenishment, are described in this report. WRD also publishes

In-lieu Replenishment

During the 1955-56 water year, WRD began a program of in-lieu replenishment. The program is authorized by Section 60230 of the California Water Code. In effect, WRD was given the power to contract with any producer having access to supplemental water that can be used instead of pumping water from the ground.

The program may be used to alter pumping patterns within a groundwater basin; replenish areas of low transmissivity where conventional recharge techniques are ineffective; heighten the effect of injecting water to form a sea water barrier by reducing extractions in the vicinity; reduce the amount of replenishment water purchased by WRD; and reduce the annual extraction from a groundwater basin (See Table 11).

Alamitos Barrier Project

The Alamitos Barrier Project (Figure 4 and Table 6), designed to prevent sea water intrusion into the fresh water aquifers of the Central Basin, is of great importance to water users in the Central Basin.

Sea water intrusion at the mouth of the San Gabriel River (Alamitos Gap) poses a serious threat to the groundwater supply. This area has seven water-bearing zones identified in downward order as Recent aquifer, C Zone, B Zone, A Zone, I Zone, Main (Silverado) aquifer, and Lower Zone (Sunnyvale) aquifer.

Sea water intrusion occurs through the Recent aquifer, which is very permeable and open to the sea. The C, B, A, and I Zones merge with the Recent aquifer and are, therefore, susceptible to intrusion, as can be noted by the varying degrees of salinity occurring in the water found in each zone. The saline water intrusion has been detected as far as 10,000 feet landward of the Newport-Inglewood fault zone and, if unchecked, could extend into the Silverado and Sunnyvale aquifers, which are the principal groundwater-producing zones in the Basin.

The Los Angeles County Department of Public Works operates a barrier comprised of a saline water extraction trough and a fresh water injection pressure ridge to halt intrusion. In addition to the extraction wells and injection wells required, a number of observation wells are also part of the project. These provide data along the barrier and are used to monitor groundwater levels and water quality in this area.

The information from this monitoring program will be utilized in determining if additional barrier facilities are necessary. Since operation of the barrier began in 1955, the sea water intrusion problem has been contained.

an annual report of its operations. (Additional information may be obtained from its staff, 12621 East 186th Street, Centex, CA 90703, phone 852-921-5521).

The Watermaster cooperates closely with WRD because: (1) Watermaster service areas in the Central and West Coast Basins closely match the district boundaries; (2) both WRD and the Watermaster are required to record all groundwater extractions from the Basins; (3) WRD was the plaintiff in the Central Basin Water Right Case (Case No. 788,858, Superior Court, Los Angeles County); and (4) both WRD and the Watermaster are concerned with the usefulness of the groundwater basins in the Coastal Plain. Many of the Watermaster's data collection programs are coordinated with the WRD to prevent duplication. Hence, monthly or quarterly water well reports are sent to the Watermaster through WRD.

Water from many sources is required to serve the needs of Southern California's thriving urban economy. Water from the Colorado River, Owens River-Mono Basin, and Northern California; runoff from local mountains; local groundwater; and reclaimed water contribute to the water supply system.

Local precipitation on the Basin does not directly influence the recharge of groundwater supply in the Central Basin to any great degree because of a confined aquifer. A layer of impervious material lies between the surface and the producing aquifers, except in the forebay areas. As a consequence, very little of the rain which falls directly on the Basin reaches the zones where it can be pumped back to the surface.

Groundwater Recharge

Natural replenishment of the Basin's groundwater supply is largely from surface inflow through Whittier Narrows (and some underflow) from the San Gabriel Valley. Some of the water that percolates into the forebay areas of the Central Basin eventually crosses the barrier between the Central Basin and the West Coast Basin and flows into the West Coast Basin.

In the past, outflow and extractions have exceeded natural replenishment, thus upsetting the Basin's water balance. The availability and pricing of imported water also affect the amount of extractions from the Basin. However, extractions do not seem sensitive to MWD price and are fairly constant year to year. Today, attempts are made to reestablish nature's balance by natural and artificial and in-lieu replenishment.

One method of replenishment is water spreading. Water is flooded on areas where it can percolate into the underground aquifers and supplement the natural recharge supply. Large quantities can be returned to the ground by spreading, but the process is limited by the space available for facilities for spreading and the ability of the recharge aquifers to percolate water back to the Basin. Imported water purchased from MWD and recycled water from Whittier and San Jose Treatment Plants are used for artificial recharge.

Basinwide Water Quality Monitoring

In compliance with Title 22 of the California Administrative Code, the Central Basin Water Association is involved in a basinwide plan to monitor the quality of water being pumped for domestic use.

Primary enforcement responsibility of the 1974 National Drinking Water Act, as embodied in the National Interim Primary Drinking Water Standards, was given to the states. California has assumed primary enforcement responsibility through passage of Senate Bill 1078, signed by the Governor in October 1976.

Groundwater Levels

Every water well owner in the Central Basin is concerned with groundwater levels because the cost of pumping water is largely dependent on the distance it must be lifted. Energy costs have risen dramatically and are expected to continue to rise in the foreseeable future.

Figure 6 shows water level information in the form of selected hydrographs. The hydrographs are representative of water levels in wells producing from several aquifers underlying the Basin. Additional water level information is contained in WRD's annual report.

Prior to 1961, groundwater from the Basin satisfied most of the demand. However, the Judgment reduced extractions to 217,367 acre-feet annually, so imported water has become a major component of the area's water supply.

Figure 7 illustrates the groundwater extractions and imported water use from 1957-58 to the present, less San Gabriel Valley imports. Much of the increase in demand for imported water during the mid-1960s may be attributed to the curtailment of groundwater extractions. The early 1970s saw a leveling off in this demand for imported water which continues today.

Groundwater Extractions

The Central Basin Judgment limits the amount of groundwater each party can extract annually from the Basin (July 1 of one year through June 30 of the following year). (See Appendix B.) This limit is referred to as the "Allowed Pumping Allocation" (APA). Recipients of Exchange Pool water may pump the amount released to them in addition to their APA.

The metered groundwater production from each active well in the Basin is listed by Party in Appendix C. Normally, water wells producing less than 25 acre-feet per year do not require a meter and may be reported on a quarterly basis. Appendix C lists parties and nonparties reporting quarterly. Wells where groundwater was extracted are shown on Plates 4 and 6.

To provide flexibility in the control of groundwater extractions, the Judgment contains provisions allowing the parties to carry over into the succeeding water year a portion of their unused water right and in some cases to overextract. This flexibility was necessary to meet unforeseen emergencies in water demand.

One provision allows parties to carry over from one water year to another any unused APA not to exceed 20 percent of their APA or 20 acre-feet, whichever is greater*. In addition, any unused Exchange Pool water can be carried over into the following fiscal year.

Parties are also allowed to overextract by 20 percent of their APA or 20 acre-foot, whichever is greater. Under certain circumstances, parties may overextract in greater amounts; however prior approval by the Watermaster must be obtained. In any case, the overextraction must be made up the following fiscal year unless Watermaster grants a relief due to an unreasonable hardship; such relief shall be prorated over a 5-year period.

Water Well Identification

A State Well Number identifying water wells in the Central Basin is derived from a system based on the U. S. Public Land Survey. Each number consists of township and range designations, a section number, a letter representing the 40-acre tract in which the well is situated, a sequence number indicating the chronological order in which the well number was assigned, and a letter representing the base and meridian. The last letter is frequently omitted from well numbers in a single area because all wells there share a single base and meridian. The components of Well 3S11W-12C03S, for example, are identified in Figure B.

Well numbers are assigned and recorded by the Watermaster. In addition, information on each well shown on Plates 4 and 5 is maintained in the Watermaster's office.

ADMINISTRATION OF JUDGMENT

The Central Basin Judgment contains provisions for the parties to obtain additional pumping rights, exceed entitled extractions, or make variations in annual pumping. The procedure thus established is described below.

Exchange Pool

The Court and parties foresaw that adjudicating the water rights in the Central Basin and limiting the total extractions would not suffice all parties. For this reason, Part III,

*This provision of the Judgment was amended to permit all parties full 100 percent carryover from 1976-77 and 1977-78 because of the drought.

(July 1 - June 30); (b) less the incremental cost of pumping water in the Basin at the beginning of the administrative year determined by Southern California Edison Company's schedule PA-1 rate multiplied by 660 kilowatt-hours per acre-foot rounded to the nearest dollar; and (c) less the current replenishment assessment. Because item (a) varies among exchangers and items (b) and (c) vary from year to year, the cost of Exchange Pool water will likewise vary among exchangers and from year to year.

Exchange Pool Carryover

The Central Basin Exchange Pool provides additional pumping rights to parties at a relatively high price. The authors of the Judgment therefore believed that the parties should be allowed to pump their entire exchange-water-right purchases, regardless of the provisions limiting carryover of water rights. Therefore, a specific exchange water carryover provision was drafted and included in the Judgment.

The provision specifically allows a party who purchased exchange water to carry over the unpumped portion of his allowable extraction into the next succeeding administrative year. The charge is authorized by the Judgment and is based on the difference in the prices of Exchange Pool water between the year the water was purchased and the succeeding year.

Transfers of Allowed Pumping Allocations

The Central Basin Exchange Pool is not the only method of obtaining additional pumping rights. Each water year, there are many water-right leases and sales between parties.

In Appendix B there are also recorded sales of water rights between parties and the current ownership of Allowed Pumping Allocations by each of the parties as of June 30.

Suggested samples of water right lease and sale agreements are illustrated in Appendix B. The Watermaster recommends that all documents be prepared on an 8-1/2 x 11-inch sheet of paper. Any necessary additions to the recommended agreement may be attached on another page. These sample documents do not have to be used, but they are sufficient for most purposes.

When property on which water rights have been developed is sold, the Watermaster must be furnished a copy of the sale document. The sale document is required for the proper accounting of the water rights. The Watermaster assumes that the water rights pass to the new owner unless specifically reserved in the sale document.

In leasing, buying, or selling water rights, parties should be specific as to the type being exchanged, i.e., Total Water Right or Allowed Pumping Allocation. All leases should be entered into on the basis of Allowed Pumping Allocation, whereas sales should specify

Subpart C of the Judgment authorizes an Exchange Pool to provide additional water rights for parties without a supplementary supply.

On or about July 1 of each year, the Watermaster mails an Exchange Pool form to each party, requesting that the form be completed and returned to the Watermaster by August 0. The form provides for making mandatory offers of water rights to the pool, and referred to as "Required Subscription" in the Judgment; "Voluntary Subscription"; and requests for water rights from the pool. In completing the form, the member must estimate his water needs and supply for the ensuing fiscal year.

Requests

A request for Exchange Pool water rights may be made when a Party's estimated needs exceed its total supply, including leases. A Category (a) Request is defined as that quantity requested by a member not in excess of 150 percent of his APA or 100 acre-feet, whichever is greater. Category (b) Requests are those which exceed the 150 percent or 100-acre-foot limitation. Whenever there are insufficient Voluntary Subscriptions to meet all Category (a) Requests, Required Subscriptions may be used. All Category (a) Requests shall be filed first before any Category (b) Requests are filed. Category (b) Requests are filed first by any remaining Voluntary Subscriptions before the Required Subscriptions are used.

A Required Subscription can be made to the pool when a member has a connection to supplementary water and can obtain imported water from MWD or the Central and West Basin Municipal Water District. The Required Subscription is limited to 20 percent of the member's APA, except that the Required Subscription, plus the party's water needs for the year, cannot exceed the party's total supply.

A Voluntary Subscription can be made by any member of the Exchange Pool. The only requirement is that the member's supply must exceed his estimated needs and only the difference may be offered.

However, the Watermaster must first allocate all the Voluntary Subscriptions before using the Required Subscriptions in filling Category (a) Requests and Category (b) Requests.

Experience has shown that Voluntary Subscriptions have always been sufficient to meet all the Category (a) Requests; as a result, no Required Subscriptions have been used to fill Category (a) Requests. It is doubtful whether Required Subscriptions will ever be used to meet Category (a) Requests.

The price charged for Exchange Pool water rights is fixed by Part III, Subpart C, Paragraph 10 of the Judgment. This provision was amended by the Court order on July 9, 1985. The price is now based primarily on: (a) the weighted daily normal price as of the beginning of the administrative year charged by the Central Basin Municipal Water District for treated MWD water used by the exchangers during the preceding fiscal year

both amount of Total Water Right and amount of Allowed Pumping Allocation, each to the nearest whole acre-foot. All water-right leases should be made on a fiscal year basis, i.e., July 1 through June 30 of the following year.

The Watermaster keeps a list of parties who have informed him of their interest in buying, selling, or leasing water rights. Any party wishing to be listed should call the Watermaster. This is not done as a Court-required function. It is an informal courtesy established to assist parties unable to resolve problems regarding an excess or deficiency of water rights. The Watermaster will make no recommendation regarding transactions conducted relative to the use of this service. The names of all parties using this service are available in the Watermaster's office and may be obtained by telephone or visit to the office.

Overextractions

Each year some parties extract more groundwater from the Central Basin than they are entitled to. The overextractions are usually small, within the tolerance set by the Judgment. Each party may overextract by 20 acre-feet or 20 percent of its Allowed Pumping Allocation, whichever is greater, on the promise that the overextraction will be eliminated during the following fiscal year. Any overextractions above this limit must have prior approval of the Watermaster. Most overextractions are caused by unexpected increases in water demand, so it would be unreasonable not to allow some deviation from the limits and guidelines of the Judgment.

Findings and Determinations by Watermaster

From time to time, the Watermaster evaluates historical groundwater production records of parties at the request of the parties or at the Watermaster's discretion. In some instances, the evaluations and findings result in minor unconfessed changes in the records, which may be to the benefit or detriment of the party.

Carryover of Allowed Pumping Allocation

The provision in the Judgment (Subpart A, Part III)** relative to allowable carryover of unused water rights states in part: "Each party ... who ... does not extract ... a total quantity equal to such party's Allowed Pumping Allocation for the particular Administrative year ... is permitted to carry over from such Administrative year the right to extract from Central Basin in the next succeeding Administrative year so much of said total quantity as it did not extract ... not to exceed 20% of such party's Allowed Pumping Allocation, or 20 acre-feet, whichever is the larger." (Underlining added.)

The method of computing the carryover and allowable overextractions was changed, effective in the 1972-73 fiscal year. It is now assumed that when not specifically passed to the lessee by the lease document, the amount leased is not deducted from

** This provision of the Judgment was amended because of the drought to permit all 200 parties full carryover for the 1976-77 and 1977-78 fiscal years.

the lessor's Allowed Pumping Allocation for computing the carryover or allowable overextraction. All future lease documents must contain a statement as to which party receives the benefit of the amount leased for computing carryover or overextractions. Item (5) in suggested Water Right License and Agreement is sufficient for this requirement (see Appendix B).

Cost of Watermaster Service

The Judgment requires that the Watermaster prepare and mail a copy of the tentative budget to each of the parties at least 60 days before the beginning of each fiscal year. If no objections are received within 15 days after submitting the budget, it becomes final.

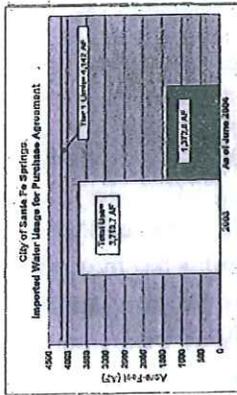
The administrative cost chargeable to the parties was apportioned among the parties as directed by the Judgment. The Judgment provides that, if the amount to be assessed to each party of the final budget is equal to or less than \$20 per party, the cost shall be equally apportioned among the parties. However, if the party's share of the budget is greater than \$20, each party will be assessed a minimum of \$20 and the total amount collected will be deducted from the parties' share of the budget. The balance to be collected is then assessed among the Parties in proportion to their Allowed Pumping Allocations.



Attachments – Central Basin Municipal Water District

1. Domestic and Recycled Water Use Tables / Figures from the "Water Use Report – Fiscal Year 2003-2004".

**City of Santa Fe Springs
Total Water Use**



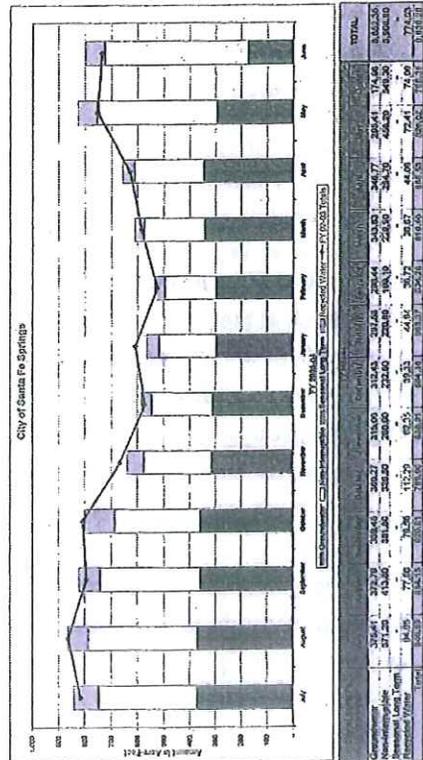
City of Santa Fe Springs
8000 Santa Fe Springs
Santa Fe Springs, CA 90070
Contact: Mr. Ryan Nichols, Assistant Civil Engineer
Office: (562) 602-2111
Fax: (562) 382-7112

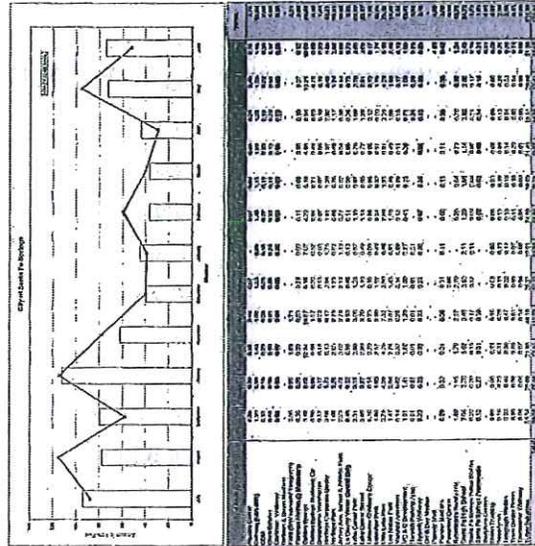
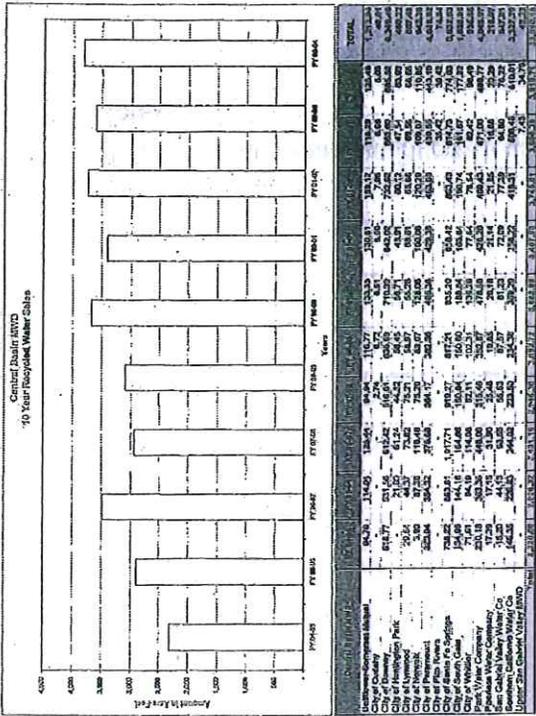
2004 Capacity Reservation Charge (ch):
2000 = \$0.0
2001 = \$1.0
2002 = \$1.0
2003 = \$1.0
2004 = \$1.0

Notes: * 100% City of Santa Fe Springs due for the past three years.
Imported Commissions
CIBS-30
CIBS-42

Allowed Pumping Allocation (AP): 4,000 AF

Year	Actual	Allowed	Over/Under	Over/Under %	Over/Under Ratio	Over/Under Factor	Over/Under Multiplier	Over/Under Adjustment	Over/Under Total	Over/Under Balance	Over/Under Carryover	Over/Under Total
2004	3,783.7	4,000.0	-216.3	-5.4%	0.946	0.946	0.946	-205.8	3,577.9	3,577.9	0.0	3,577.9
2003	3,783.7	4,000.0	-216.3	-5.4%	0.946	0.946	0.946	-205.8	3,577.9	3,577.9	0.0	3,577.9
2002	3,783.7	4,000.0	-216.3	-5.4%	0.946	0.946	0.946	-205.8	3,577.9	3,577.9	0.0	3,577.9
2001	3,783.7	4,000.0	-216.3	-5.4%	0.946	0.946	0.946	-205.8	3,577.9	3,577.9	0.0	3,577.9
2000	3,783.7	4,000.0	-216.3	-5.4%	0.946	0.946	0.946	-205.8	3,577.9	3,577.9	0.0	3,577.9
Total	18,918.5	20,000.0	-1,081.5	-5.4%	0.946	0.946	0.946	-1,029.0	17,889.5	17,889.5	0.0	17,889.5





CITY OF SANTA FE SPRINGS - 68 010 WATER SUPPLY ASSESSMENT
Development at Tule Creek Road and Norwood Extension

Attachments – Water Replenishment District of

1. Water Replenishment District of Southern California, "An Introduction to the Hydrogeology of the Central and West Coast Basins" – Technical Bulletin, Fall 2004.

Technical Bulletin
Volume 1 – Fall 2004

AN INTRODUCTION TO THE HYDROGEOLOGY OF THE CENTRAL AND WEST COAST BASINS

By: Ted Johnson, Chief Hydrogeologist
Email: tjohnson@wrds.org

The WRD is pleased to present this first in a series of Technical Bulletins designed to provide useful information on the groundwater resources of the Central and West Coast Basins (CWCB). Volume 1 presents an introduction to the hydrogeology of the basins, including the geology, the occurrence and movement of groundwater, and the groundwater budget. Future issues will cover topics such as: groundwater recharge, computer modeling, well drilling, water quality, aquifer properties, and replenishment facts. The WRD welcomes any comments on its Technical Bulletin or suggestions for future topics.

Geology

The CWCB are two groundwater basins in the Coastal Plain of Los Angeles County. They are comprised of Quaternary, age less than 1.8 million years old) sediments of gravel, sand, silt, and clay that were deposited in layers from the erosion of nearby hills and mountains and from historic beaches and shallow ocean basins that covered the area in the past. Underlying these Quaternary sediments are basement rocks such as the Franciscan Formation that generally do not provide sufficient quantities of groundwater for pumping. Separating the Central Basin from the West Coast Basin is the Pleistocene-aged Uplift (PUL), a series of north-south trending hills and ridges that form a prominent line of north-south trending hills including the Duarte Hills, Dominguez Hills, and Signal Hill.

The Central Basin (CB) covers approximately 270 square miles and is bounded on the north by the Hollywood Basin and the Flamingo, Repetto, Marston, and Pointe Hills, to the east by the Los Angeles County/Orange County line, and to the south and west by the NAL. The California Department of Water Resources (1991) divided the Central Basin into four sections: the Los Angeles Foothills, the Malibu Hills, the West Coast Basin (WCB) covers approximately 140 square miles and is bounded on the north by the Duarte Hills and the Ballona Escarpment to the north of the Ballona Coast, on the east by the NAL, to the south by San Pedro Bay and the Palms Verdes Hills, and to the west by the Santa Monica Bay. Aquifers in the West Coast Basin are generally confined and therefore require the majority of their natural recharge from groundwater underflow from adjacent basins or from confined seawater intrusion in certain areas. Figure 2 is a generalized geologic cross section through the CWCB.

Figure 1 – Map of Central and West Coast Basins

Figure 2 – Generalized Geologic Cross Section through the Central and West Coast Basins showing Aquifers

**APPENDIX G:
SAMPLE WATER BILL WITH WATER
CONSERVATION MESSAGE**



City of Santa Fe Springs Water utility
 11710 Telegraph Rd.
 Santa Fe Springs, CA 90670-3658
 Customer Service (562) 868-0511

UTILITY ACCOUNT INFORMATION

Account Number 123456789
Service Address 12345 TELEGRAPH ROAD
Date Billed 03-30-2011
Service Period 02-17-2011 to 03-10-2011
Date Due 04-14-2011

WATER UTILITY STATEMENT

MAXIIMUS SMITH

12345 TELEGRAPH RD
 SANTA FE SPGS, CA 90670

Your water utility bill is now due and payable. If payment is not received BY 04-27-2011 a \$15.00 late fee will be applied to your account and a Delinquent Notice will be mailed to you.

BILLING INFORMATION

Previous Bill (- -)	\$0.00
Payment Received	\$0.00
Penalty - Delinquent Fee	
Adjustments Made To Account	\$0.00
	\$0.00

BALANCE FORWARD

Current Charges		\$0.00
Meter Read	Current 002600 Previous 002595 Consum 5 CCF	
Water Usage Charge	Domestic Service	\$11.40
Water Meter Charge		

TOTAL BALANCE DUE

\$11.40

Don't let your grass cost as much as your gas! Watering your yard less often this summer may mean lower water bills for you. Visit www.centralbasin.org for other conservation tips, programs, and rebates.

RETURN THIS PORTION WITH YOUR PAYMENT



City of Santa Fe Springs Water utility
 11710 Telegraph Rd.
 Santa Fe Springs, CA 90670-3658
 Customer Service (562) 868-0511

Amount Paid

Amount Billed \$11.40

Date Due 04-14-2011

Account Number 123456789
Name MAXIIMUS SMITH
Service Address 12345 TELEGRAPH ROAD
Date Billed 03-30-2011

Include your Account Number on your check

Sample Conservation Tips Applied to Customer Water Bills

1. Save money by using less water! By taking shorter showers you could save up to 5-10 gallons for every minute you cut back. Save even more by turning off the water faucet while brushing your teeth or shaving. Be water wise!
2. Don't let water go down the drain! Fix leaky faucets, toilets, and pipes. Even a small leak can waste hundreds of gallons per month. Visit www.centralbasin.org for more conservation tips, programs, and rebates.
3. Make every drop count! By washing full loads in your dishwasher and washing machine, you could save up to 15 and 50 gallons per load. Visit www.centralbasin.org for more conservation tips, programs, and rebates.
4. Did you know? Washing down your driveway and sidewalk with a hose can use up to 150 gallons each time! Save water by using a broom instead. Visit www.centralbasin.org for more conservation tips, programs, and rebates.
5. Keep your sprinklers on a tight leash! Check sprinklers for leaks, overspray, and broken sprinkler heads. You could be wasting up to 500 gallons a month without knowing it.
6. Don't let your grass cost as much as your gas! Watering your yard less often this summer may mean lower water bills for you. Visit www.centralbasin.org for other conservation tips, programs, and rebates.

**APPENDIX H:
RECLAIMED WATER SITES IN
SANTA FE SPRINGS**

CITY OF SANTA FE SPRINGS RECYCLE WATER SITES (INCLUDES METER NUMBERS)

CITY OWNED RECYCLE WATER SITES

TOWN CENTER WALKWAY

2001000 10202 FLALLON AVENUE

TOWN CENTER GREEN BELT

2003550 10113 PIONEER BLVD
2003720 10115 PIONEER BLVD

PIONEER ROAD MEDIAN ISLANDS

2003760 10318 PIONEER M ISL

CLARKE ESTATE

2003550 10210 ALBURTIS AVENUE
2003600 10212 ALBURTIS AVENUE

POLICE CENTER

2003640 10017 JERSEY AVENUE

LITTLE LAKE PARK

63003550 11813 LAKELAND ROAD
63003550 11813 1/2 LAKELAND ROAD

LAKEVIEW PARK (ACROSS 10262)

2004000 10262 JERSEY AVENUE
51016040 11530 JOSLIN STREET

LAKE CENTER PARK

5024380 11641 FLORENCE AVENUE
5024420 11641 FLORENCE AVENUE

CLARKMAN WALKWAY

6026520 89669 W/J JERSEY/CLARKMAN

GREEN BELT IRRIGATION ON TELEGRAPH

6009930 00593 EO NOR/TEL

NORWALK MEDIAN

29005700 10311 NORWALK/MEDIAN
61004500 10400 NORWALK/MEDIAN

LOS NIETOS PARK

30003501 11143 CHARLESWORTH RD
30003501 11143 CHARLESWORTH RD
30003701 11143 CHARLESWORTH RD
30003801 11155 CHARLESWORTH RD

ORR & DAY GREEN BELT

41020550 10880 E/S ORR&DAY S/O FLOR

FLORENCE MEDIANS

42003850 11550 FLOR/MED@MAIDSTONE

HERITAGE PARK

60003170 12100 MORA DRIVE
60003500 12100 MORA DRIVE
60003520 12100 MORA DRIVE

SCULPTURE GARDENS

61000400 0 SCULPTURE GRDN
62008530 10405 NORWALK BLVD
62008571 10405 NORWALK BLVD

TELEGRAPH MEDIAN ISLANDS

61005930 11535 TELEGRAPH M ISL
61005010 11630 TELEGRAPH M ISL

SFS PUBLIC SAFETY

61005970 11576 TELEGRAPH ROAD

NOT CITY OWNED RECYCLE WATER SITES

SANTA FE SPRINGS HIGH SCHOOL
51016000 10359 JERSEY AVENUE

10929 NORWALK BLVD - COMMERCIAL
60001320 10929 NORWALK BLVD

HERITAGE PARK BUSINESS AREA (HPBA)

60001901 10355 SLUSHER DRIVE
60002021 10375 SLUSHER DRIVE
60002181 10395 SLUSHER DRIVE
60002261 10415 SLUSHER DRIVE
60002421 10425 SLUSHER DRIVE
60002741 12020 MORA DRIVE
60002801 12015 MORA DRIVE
60002841 12041 MORA DRIVE
60002851 10370 SLUSHER DRIVE
60003061 10349 HERITAGE PARK DR
60003341 10440 ONTIVEROS PLACE
60003501 12130 MORA DRIVE
60003941 12155 MORA DRIVE
60004283 12160 MORA DRIVE
60004461 12170 MORA DRIVE
61002141 12070 TELEGRAPH ROAD

POWERENE REFINERY

41012900 12345 LAKELAND ROAD

PATERSON PL - INDUSTRIAL

33005001 10747 PATTERSON PLACE

PARADISE CEMETERY

6024450 11541 FLORENCE AVENUE

JERSEY SCHOOL

6022800 11222 CHARLESWORTH RD

CITY OF DOWNEY LANDSCAPING ALONG FWY 5

21001250 0 DOLLISON/QUINN

TOWN CENTER BLDG (EAST SIDE OF PIONEER)

2003501 10100 45C PIONEER BLVD

CARNEVILLE PROPERTIES - COMMERCIAL

63001021 12230 FLORENCE AVENUE
63001043 12234 FLORENCE AVENUE

BLOOMFIELD COMMERCE CENTER

63007600 12839 FLORENCE AVENUE
63007650 12839 FLORENCE AVENUE

GOLDEN SPRINGS SITE

67003500 12816 SHOEMAKER AVENUE
55005520 13500 FOSTER ROAD @S
55005540 13438 FOSTER ROAD @R
26001930 12620 LEFFINGWELL ROAD
27020070 13300 "M" CARMENITA ROAD
27018105 13301 ORDEN DRIVE
27018851 13338 ORDEN DRIVE
27019110 13507 ORDEN DRIVE
27020000 13409 ORDEN DRIVE
27021000 13527 ORDEN DRIVE
27020200 13408 ORDEN DRIVE N
64000000 13102-204 IMPERIAL HIGHWAY
64001100 13135 MARQUARDT AVENUE
64001200 13225 MARQUARDT AVENUE
64004040 13415 CARMENITA ROAD
65001500 12818 LEFFINGWELL ROAD
65001620 12825 LEFFINGWELL ROAD
65001630 12801 LEFFINGWELL AVE
65003510 13021 LEFFINGWELL AVE
65003540 12802 LEFFINGWELL AVE
65005501 13204 IMPERIAL HIGHWAY
65005571 13803 FOSTER ROAD (ON ORDEN)
65005801 13220 IMPERIAL HIGHWAY

S F S TRUCK STORAGE INC

67003420 12729 SHOEMAKER AVENUE

12920 IMPERIAL HIGHWAY - COMMERCIAL

67003821 12920 IMPERIAL HIGHWAY

12842 SHOEMAKER AVENUE

67003400 12842 SHOEMAKER AVENUE

11333 GREENSTONE AVE - WEST COAST

67004201 11333 GREENSTONE AVE

11651 GREENSTONE - COMMERCIAL

67009150 11651 GREENSTONE AVE

PACIFIC COMMERCE CENTER

29003503 6210-6314 NORWALK BLVD

LUFTEX CARPET MILL

45016000 15228 BONAVISTA AVENUE
45016200 15230 BONAVISTA AVENUE

12311 GREENSTONE - ROBERTSON'S CONCRETE MIX

67013210 12311 GREENSTONE AVE

LAKE CENTER SCHOOL

2003300 11640 CLARKMAN STREET
2003340 11640 CLARKMAN STREET
2003380 11640 CLARKMAN STREET
6024260 11641 FLORENCE AVENUE
6024500 11641 FLORENCE AVENUE
6024340 11641 FLORENCE AVENUE

GALTRANS HOME AT FLOREN

2003920 10905 N/S FLORENCE AVENUE
2003950 10904 S/S FLORENCE AVENUE

LA GO GREATER VICTOR

33016500 10731 BLOOMFIELD AVE

CLARKMAN ISLS

60005041 10233 NORWALK BLVD
60005050 10233 NORWALK BLVD
60209020 10137 NORWALK BLVD

CHARLES JR

67003370 12340 IMPERIAL HWY

**APPENDIX I:
SAMPLE OF COOPERATION ON
UWMP WITH OTHER AGENCIES**



City of Santa Fe Springs

11710 Telegraph Road • CA • 90670-3679 • (562) 868-0511 • Fax (562) 868-7112 • www.santafesprings.org

April 6, 2011

City of Norwalk
12700 Norwalk Boulevard
Norwalk, CA 90650

Attention: Theresa Devoy, City Clerk

Subject: 2010 Urban Water Management Plan

Dear Ms. Devoy:

The City of Santa Fe Springs is preparing an updated Urban Water Management Plan (UWMP) and will submit this to your agency by July 1, 2011 in accordance with The Urban Water Management Planning Act (Cal. Water §§10617, 10620).

The 2010 UWMP reports on the city's long-term plans for ensuring reliability, the quality of water resources, and was designed to meet requirements of the law.

If you have any questions, please contact me at (562) 868-0511, extension 3611.

Sincerely,

Frank D. Beach
Utility Services Manager

FDB/mc

xc: Donald K. Jensen, Director of Public Works



City of Santa Fe Springs

11710 Telegraph Road • CA • 90670-3679 • (562) 868-0511 • Fax (562) 868-7112 • www.santafesprings.org

April 6, 2011

City of Downey
11111 Brookshire Avenue
Downey, CA 90670

Attention: Joyce Doyle, Interim City Clerk

Subject: 2010 Urban Water Management Plan

Dear Ms. Doyle:

The City of Santa Fe Springs is preparing an updated Urban Water Management Plan (UWMP) and will submit this to your agency by July 1, 2011 in accordance with The Urban Water Management Planning Act (Cal. Water §§10617, 10620).

The 2010 UWMP reports on the city's long-term plans for ensuring reliability, the quality of water resources, and was designed to meet requirements of the law.

If you have any questions, please contact me at (562) 868-0511, extension 3611.

Sincerely,

Frank D. Beach
Utility Services Manager

FDB/mc

xc: Donald K. Jensen, Director of Public Works

**APPENDIX J:
SAMPLE DO-IT-YOURSELF
RESIDENTIAL CUSTOMER WATER
AUDIT**

Do-It-Yourself Residential Customer Water Audit

This guide will assist you in understanding your water meter, checking for leaks that can waste water and cost you money, estimating your household's current water use, and making adjustments to your water use. As you read the information provided in this guide, use the Water Use Worksheet to record your water use. You should be able to estimate daily water use and water use for the month.

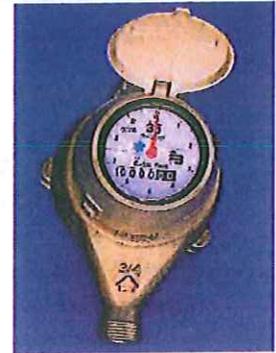
Your water meter

What your water meter can tell you

Your meter can tell you how much water you are using per day, week, month and year. You can monitor your meter yourself and check your figures against our figures to verify the accuracy of your water bill. Your meter can also show leaks in your water system.

How to find your water meter

Your water meter is inside a rectangular concrete box, flush with the ground, and is usually located near a roadway curb or sidewalk near the residence's property line. Be careful when opening the lid as there may be spiders, snakes, bees or bugs inside.



Do you have a leak?

How to detect leaks:

To test for leaks in your plumbing system, turn off all indoor and outdoor water use activity (sinks, dishwasher, sprinklers, etc.). Lift lid from meter and look for a small red diamond shaped dial or a silver colored disk on the meter face. If this is turning you have a leak. To estimate the severity of the leak, record the numbers on your water meter. Wait two to four hours (overnight if possible), then reread your meter. The meter registers in cubic feet, 1 cubic foot equals 7.48 gallons, 100 cubic feet equals 748 gallons or 1 billing unit.

If a leak is detected at the meter:

Turn off the house gate valve to determine if the leak is outside your home. The gate valve is usually located at a hose bib on an outside wall, generally in a direct line from the water meter. If the meter dial still moves, you should investigate the possibility of a leak in the line between the meter and the house.

Irrigation system leaks:

Leaks in your irrigation system won't always show on your meter due to their separate anti-siphon shut-off valves. To find leaks, walk your irrigation lines. Check for unusual wet spots, leaky or broken sprinkler heads, and use your meter to measure total irrigation use. Locate all hose bibs and check for leaks and drips. Replace washers if there are any leaks.

Pool and pool equipment leaks:

Your pool will naturally lose some water to evaporation and splash-out. You may also gain water from rainfall. A rule of thumb is that if you're routinely adding more than two inches of water to your pool per week, you may have a leak. It is worth spending some time and money to repair.

Pools are meant to be watertight but sealants will deteriorate while other parts of your pool shift and settle or just plain wear out. Pools can leak through any of the fittings or accessories, plumbing, or even right through the shell. It is important to repair leaks, not only to save water, heat, and chemicals, but also to prevent undermining pool structural components and washing away fill dirt.

Are there leaks at the equipment pad?

Look closely at the filter, pump, heater, and pool fill valve(s). Check the ground for moisture. Turn the pump on and off looking closely for spraying water when the pump is turned off.

Are there any wet areas around the pool?

Take a walk around the pool's edge and between the pool and the equipment pad. Check for wet soil and eroded areas.

Is your pool equipped with a vinyl liner?

If so, there are special considerations. Look for sinkholes where sand under the liner may have washed away. If an animal has fallen into your pool you may notice claw (tears) marks just below the water line. Spending time under water with a mask may be required to find a small leak in the liner. When the liner becomes old they may have small pinhole leaks.

Unsure of your evaporation rate?

Place a bucket of water beside the pool and mark both the water in the bucket and the pool water level. Wait 24 hours then check the loss of both. If the pool loses more water than the bucket, then you have a leak.

Toilet leaks:

Check toilets for leaks. Put a few drops of food coloring or other dark colored liquid in the tank. Don't flush. Wait 10 minutes. If color appears in the bowl, there is a leak in the toilet mechanism.

Water use outside the house

This section will help you to determine how much water you are using and show you ways to cut back on your water use.

Garden Hoses and Bibs:

Measure garden hose output by writing down the time needed to fill a 1 or 2 gallon bucket. Calculate the amount of water used in one minute. * A typical 5/8" garden hose can use 12 to 15 gallons a minute

Sprinkler System:

Perform a timed consumption test for your irrigation system

- Turn off all water use in the house
- Record the reading on the water meter
- Turn on the sprinklers for the usual water schedule
- When the sprinklers shut off, read the meter again
- Determine how much water is used each time you irrigate
- Enter this number in the Calculate Weekly Water Use section

Perform a catch-can test:

- Set out three (3) empty tuna fish cans or similar straight sided cans within the boundaries of a sprinkler station
- Turn on the system for fifteen (15) minutes
- Measure the depth of the water in each can with a ruler and take the average depth
- If you measured one-quarter inch (1/4") as the average, this would mean that your sprinkler system puts out one inch (1") an hour

Sprinkler Efficiency

Check the accuracy of the irrigation system controller by comparing the watering times of each station to the actual time shown on the controller. Look at all sprinkler heads and check for operating efficiency. Consider replacing non-efficient sprinkler heads with newer conserving models. Over-spray can increase your needed watering time. Check for over-spray onto paved surfaces and reposition the sprinkler head to make sure any over-spray is avoided.

Water Use Inside your Home

Kitchen and Bathroom

Aerators can reduce water flow in half. Aerators can be purchased at your local hardware store. You can also reduce pressure and flow by turning down the valve under the sink that supplies water to the faucet.

Analyze faucets in the kitchen sink and bathroom sink

Put a one (1) gallon jug under a faucet and turn on to the normal flow and write down how long it takes to fill completely.

Showerheads

Put a one (1) gallon or larger bucket under the showerhead and turn on the water full blast. Check number of seconds it takes to fill the bucket. Calculate how many gallons flow out in one 1 minute (gallons per minute, GPM). If the showerhead output is more than 3 GPM, replace the showerhead with a water conserving model of 3 GPM or less. You may also check the meter before and after running the shower for five minutes to determine the volume of water used within the five minute test.

Toilets

Check the tank size. The size may be stamped on the inside walls on the tank or lid. If the size is not marked on the toilet, turn off handle to shut-off valve located on the wall behind the tank. Flush the toilet. The tank should be empty. Use a one (1) gallon bucket to refill the tank to its normal level. If you needed more than 3 gallons of water to fill the tank, consider replacing the toilet with a more efficient model using 1.6 gallons or less.

Calculating Weekly Water Use

Irrigation System: Take the water use calculation from your timed consumption test (on previous page). Multiply this by the number of times your sprinkler system is operating during a seven (7) day period to determine your total weekly irrigation use.

$$\begin{aligned} &\text{Amount of water used during one (1) sprinkler cycle} \quad \underline{\hspace{2cm}} \\ &\quad \times \text{ number of times sprinklers run per week} \quad \underline{\hspace{2cm}} \\ &\quad = \text{my total weekly irrigation use} \quad \underline{\hspace{2cm}} \end{aligned}$$

Indoor and Misc. Water Use: Use the worksheet on page X to determine your total weekly indoor use and other water use calculation. After completing the worksheet on page X enter your total below.

$$\begin{aligned} &\text{My total daily water use indoors} \quad \underline{\hspace{2cm}} \\ &\quad \times 7 \text{ days} = \text{my weekly indoor water use} \quad \underline{\hspace{2cm}} \end{aligned}$$

Total Use: Add the weekly irrigation use total and the weekly indoor totals together.

$$\begin{aligned} &\text{weekly irrigation use} \quad \underline{\hspace{2cm}} \\ &+ \text{weekly indoor water use} \quad \underline{\hspace{2cm}} \\ &= \text{Total weekly water use} \quad \underline{\hspace{2cm}} \end{aligned}$$

Household Indoor Water Use Calculation Worksheet

Use this worksheet to help calculate your average daily indoor household water use. The best and most accurate way to measure your indoor water use is to read your meter for each of the following activities when you are using the water – be sure to only measure one activity at a time. The numbers listed are a guideline but could be very different in your household. You may also run the tests throughout this audit and use the numbers listed below to help figure out your approximate household indoor water use. Keep in mind that without reading your meter the number will not be completely accurate.

Activity	Average Gallons	Our Household
Showers		
Regular flow head (7 gal/minute)	49 gallons	
Low-flow head (3 gal/minute)	21 gallons	
Ultra-low flow (1.75 gal/minute)	12.25 gallons	
Baths		
Full tub	38 gallons	
Toilets – per flush		
Older standard size	7 gallons	
Conserving models	3.5 gallons	
Ultra-low flush	1.6 gallons	
Brushing Teeth		
Faucet running – 3 minutes (faucets do vary)	9 gallons	
Fill drinking cup	8 ounces	
Shaving		
Faucet running – 15 minutes	30 gallons	
Fill basin	1 gallons	
Automatic Dishwasher		
Full cycle	12 gallons	
Short cycle – water miser	8 gallons	
Washing dishes by hand		
Water running – 15 minutes	45 gallons	
Fill sink	3 gallons	
Washing machine – per load		
Full load	43 gallons	
Short water level – water miser	34 gallons	
High – efficiency washer	18 gallons	
Leaking faucets (at 60 drops/minutes per day)	7 gallons	
Leaking toilets per day (approximate)	60 gallons	

TOTAL _____

**APPENDIX K:
RESOLUTION NO. 5592 ADOPTING AN
EMERGENCY WATER
CONSERVATION PLAN**

RESOLUTION NO. 5592

A RESOLUTION OF THE CITY COUNCIL
OF THE CITY OF SANTA FE SPRINGS REVISING
RESOLUTION NO. 5570
AN EMERGENCY WATER CONSERVATION PLAN

WHEREAS, there exists a shortage of water supply due to insufficient rainfall during the past several years; and

WHEREAS, Section 23-3 of the City Code empowers the City to ration or apportion water by reason of a shortage of water supply; and

WHEREAS, the State Water Code provides that the City may declare a water shortage emergency condition to prevail upon making certain findings; and

WHEREAS, the Rules and Regulations set forth below will be implemented only upon the making by the City Council of the findings required by the State Water Code,

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SANTA FE SPRINGS DOES RESOLVE AS FOLLOWS:

Section 1: An Emergency Water Conservation Plan is hereby established, as follows:

PART 1 - DEFINITIONS - WORDS, TERMS AND PHRASES

ACTIVE OR OPEN ACCOUNT: An account for which a customer has signed and is being billed for water service.

APPLICANT: Any person requesting potable, fire, or reclaimed water service, service installation, main extensions, or any other service performed by the Department or its authorized agent.

BASE: The amount of potable water used during the corresponding billing period of the previous year.

BILLING PERIOD: The time interval between two consecutive meter readings which are taken for billing purposes.

BILLING UNIT: 100 cubic feet of water, equivalent to 748 gallons.

BLIND SERVICE: An existing water service connection on which the meter has not been set or has been removed.

COST: The actual cost to the Department, including all labor, material, supplies, equipment and miscellaneous items, together with any applicable indirect and general charges, plus administrative overhead, in accordance with the accounting practices of the Department.

CUSTOMER: A person in whose name service is rendered as evidenced by the signature on the application, contract or agreement for service, or, in the absence of assigned instrument, by the receipt and payment of bills for such service regularly issued in such person's name regardless of the identity of the actual user of such service.

DEPARTMENT: The Public Works Department of the City of Santa Fe Springs.

FIRE SERVICE CONNECTION: A facility for the delivery of water to a permanent location to supply a customer-owned fire sprinkler system.

FLOW RESTRICTING DEVICE OR FLOW RESTRICTOR: Fitting inserted into the service connection to reduce flow capacity.

HISTORIC BASE PERIOD: The twelve-month period preceding the month a water shortage emergency is declared. The Department may adjust the Base Period to compensate for previous documented conservation efforts.

INACTIVE OR CLOSED ACCOUNT: An account which is not signed for and has no current customer. The account remains in the billing system, and can be reactivated upon application.

MAIN: A water pipeline located in streets, highways, public ways, thoroughfares, or private rights-of-way, and used to serve the general public.

PERSON: Any individual, partnership, corporation, agency or other organization operating as a single entity.

POTABLE SERVICE CONNECTION: A facility for the delivery of potable water to a permanent location for domestic, commercial or industrial use, including water for fire protection purposes.

POTABLE WATER: Water suitable for drinking and other general water supply purposes.

PREMISES: Integrated land areas, including improvements thereon, undivided by public thoroughfares or water distribution mains of the Department and where all parts thereof are operated under the same management and for the same purpose.

QUANTITATIVE CHARGE: That portion of the charge for water service for the amount of water registered on the water meter(s) serving the premises.

RECLAIMED WATER: Treated wastewater suitable for landscape irrigation in accordance with the California Administrative Code, Title 22.

RECLAIMED WATER SERVICE CONNECTION: A facility for the delivery of reclaimed water to a permanent location.

SERVICE CHARGE: That portion of the charge for water service which is a fixed amount related to the size of the service.

SERVICE CONNECTION CHARGE: The charge payable by the applicant for the installation of a potable, fire, reclaimed, or temporary service connection.

SERVICE RECONNECTION OR RESTORATION: Reestablishment of water service after discontinuance of service for any reason.

TEMPORARY SERVICE: Water service for construction work or other uses as deemed feasible by the Department, such that service is required for only a limited time.

WATER SERVICE: The availability of potable or reclaimed water to a premises through the facilities of the Department and any water supplied through such facilities.

WATER SERVICE LATERAL: The pipe and appurtenances necessary to conduct water from the distribution main to and through the meter, or to the shut-off valve on an unmetered service connection where connection is made with facilities of the customer.

WATER SUPPLY SYSTEM: The works and auxiliaries for collection, storage, treatment and distribution of water from the source of supply to the point of connection with the customer's facilities.

PART 2 - EMERGENCY WATER CONSERVATION PLAN

A. **SCOPE:** There is hereby established a City of Santa Fe Springs Emergency Water Conservation Plan.

B. **PURPOSE:** Upon declaration by the City Council, after a noticed Public Hearing, that a water shortage emergency exists, this plan shall be implemented to provide a vehicle to protect public peace, health and safety by significantly and equitably reducing the consumption of potable water over an extended period. The plan shall remain in effect until the Council declares the water shortage emergency has ended.

C. APPLICATION: The provisions of the Conservation Plan shall apply to all customers and property receiving potable water from the City wherever situated, and shall also apply to all property and facilities owned, maintained, operated or under the jurisdiction of the various officers, boards, departments, or agencies of the City.

D. AUTHORIZATION: The various officers, boards, departments, and agencies of the City are hereby authorized and directed to immediately implement the applicable provisions of the Conservation Plan upon the effective date of the first implementation of Phase I or any Phase subsequent thereto.

E. WATER CONSERVATION PHASES: No customer of the City shall make, cause, use or permit the use of water from the City for residential, commercial, industrial, agricultural, governmental or any other purpose in a manner contrary to any provision of, or in an amount in excess of that use permitted by, the conservation phase then in effect pursuant to action taken by the City Council in accordance herewith. The City Council shall determine which phase is necessary to accomplish water conservation requirements, based on the severity of the water shortage emergency.

(1) Phase I. The following requirements apply to all customers during Phase I:

(a) There shall be no hose washing of walkways, driveways, or parking areas except as needed for sanitary or safety purposes.

(b) Water shall not be used to clean, fill or maintain levels in decorative fountains, unless a recirculating system is used.

(c) Restaurants or other public places where food is served or offered for sale, shall not serve drinking water to any customer, unless expressly requested.

(d) All water leaks shall be promptly repaired.

(e) Lawns and landscape areas shall not be watered between the hours of 10:00 a.m. and 4:00 p.m.

(2) Phases II through V.

(a) Prohibited Uses Applicable to All Customers. During Phases II through V, no customer of water shall use water contrary to the provisions of subsection (1).

(b) Maximum Percentage of Base Period Water Use Permitted. During Phases II through V, no customer or user of water shall use or permit the use of water from the City in an amount in excess of the following maximum percentages of the corresponding billing period of the historic base period:

MAXIMUM ALLOWABLE PERCENTAGES
OF BASE PERIOD

<u>CUSTOMER GROUP</u>	<u>PHASE II</u>	<u>PHASE III</u>	<u>PHASE IV</u>	<u>PHASE V</u>
HOSPITALS	100	100	95	90
CONVALESCENT HOMES	100	100	95	90
SCHOOLS	100	100	100	90
HOTELS AND MOTELS	90	90	90	85
OIL FIELD INJECTORS	80	75	70	65
ALL OTHERS	90	90	90	80

3. Exception. The prohibited uses of water provided for by subsection (a) of this section are not applicable to that use of water necessary for public health and safety or for essential governmental services such as police, fire, and other similar emergency services.

4. Exemptions. Single family residential customers shall not be required to reduce consumption below 20 billing units per month during Phase II; or below 19 billing units per month during Phase III; or below 17 billing units per month during Phase IV; or below 16 billing units per month during Phase V.

F. PHASE IMPLEMENTATION: The City Council shall implement or change any phase of this plan by resolution which shall be published in a local newspaper of general circulation. Phase I shall take effect upon such publication. Phases II through V shall take effect with the first billing period after adoption of a Resolution implementing said phases.

G. FAILURE TO COMPLY

1. For the first failure to comply with the plan, the Department shall notify the customer of the fact of such failure to comply for Phase I. Said notice may be included on or with the water bill.

2. For failure to comply with Phases II through IV of the plan, a surcharge of 10% of the total water bill shall be charged in addition to the regular water charges.

3. For failure to comply with Phase V of the plan, in addition to the regular rate, a minimum over usage charge of \$1.25 per 100 cubic feet for water used over the target quantity shall be charged.

4. For the second and all subsequent failures to comply with Phase V of the plan, a surcharge for the period of non-compliance shall be imposed as follows:

Second Violation (all customers)	\$1.25/100 cft over target quantity
Third Violation	\$2.00/100 cft over target quantity
Fourth Violation	\$4.00/100 cft over target quantity
All subsequent violations	\$10.00/100 cft over target quantity

*Note: Above surcharges are in addition to the regular water rates.

5. For a third or subsequent failure to comply with the plan, the Department may install, for a period of not less than 48 hours and until the customer satisfies the Department that failure to comply will not continue, a flow restricting device in the customer's water service connection at the premises. Said device shall restrict flow to one (1) gallon per minute capacity for services up to one and one-half (1-1/2) inch size, and comparatively sized restrictors for larger services. The surcharge and the charge for installing and removing the flow restricting device shall be paid prior to removal and costs shall be determined by the Department based upon estimated costs to install and remove the device.

6. Any customer tampering with or removing a flow restriction device will have water service discontinued for a period of not less than 24 hours and until the customer satisfies the Department that failure to comply will not continue.

H. NOTICES

1. Except as otherwise provided in this section, any notice required by this Conservation Plan to be given to a customer for failure to comply with the provisions hereof may be given to the customer personally, on the customer's water bill, or by regular mail addressed to the billing address of the customer. Said notice, in addition to setting forth the fact of the customer's failure to comply with the applicable provision or provisions of the Conservation Plan and any proposed action to be taken by the Department for such failure to comply, shall inform the customer of his right to file for an exemption or a hearing before the City Manager and the procedure to be followed to obtain such hearing.

2. If water service to a customer is to be discontinued for any period of time in accordance with the provisions of this Conservation Plan, notice thereof shall be given by the Department to the customer in the following manner:

- (a) By personal service thereof on said customer; or
- (b) If said customer be absent from his place of residence and from his known place of business, by leaving a copy thereof with some responsible person at either place and sending a copy thereof by regular mail addressed to said customer at his billing address; or
- (c) If such place of residence and business cannot be ascertained, or such responsible person cannot be found there, then by (1) affixing a copy thereof in a conspicuous place on the property where the failure to comply is occurring, (2) delivering a copy thereof to a person there residing, if such person can be found, and (3) sending a copy thereof by regular mail addressed to said customer at his billing address.

I. RELIEF FROM COMPLIANCE

1. Administrative Hearing. A customer notified of failure to comply with this plan shall have the right to a hearing by the City Manager or his designee, provided that a written request for hearing is filed by the customer within 15 days after receipt of notice of failure to comply. The hearing shall be held within 15 days after receipt of the request therefor. In determining whether relief shall be granted, the City Manager shall take into consideration all relevant factors including, but not necessarily limited to the following:

- (a) Whether any additional reduction in water consumption will result in unemployment;
- (b) Whether additional members have been added to the household;
- (c) Whether any additional landscaped property has been added to the property subsequent to the Historic Base Period;
- (d) Changes in vacancy factors in multi-family housing;
- (e) Increased number of employees in commercial, industrial and governmental offices;
- (f) Water uses during new construction and increased production requiring increased process water;
- (g) Adjustments to water use caused by emergency health or safety hazards;
- (h) First filling of a permit-constructed swimming pool;
- (i) Water use necessary for reasons related to family illness or health;

- (j) Previous water conservation measures which affect the base figures.

A written decision shall be given to the customer personally or by mail, and shall be final except for judicial review.

2. Exemptions. Customers may apply for exemptions to this resolution. The City Manager or his designee may grant exemptions taking into consideration factors outlined in Section I, 1 a-j herein. If exemptions are granted, customers shall pay applicable drought overuse charges, but will not be subject to violations. Phase I requirements will remain in force (Part 2, Section E-1).

3. Exemption Application Fees. Applicants for exemptions shall pay a fee as follows: Residential \$5.00 - All others \$25.00. Fees shall be submitted with each application.

4. Reservation of Rights. The rights of the City hereunder shall be cumulative to any other right of the City to discontinue service. All monies collected by the City pursuant to any of the provisions of this Conservation Plan shall be deposited in the Water Revenue Fund as reimbursement for the City's costs and expenses of administering and enforcing this Conservation Plan.

J. GENERAL PROVISIONS

1. Reduction in Water Supplied. If any customer fails to comply with any provision of this Conservation Plan, the City may reduce the amount of water provided to that customer to the level which that customer would be using if he were complying with the provisions of this Conservation Plan. The provisions of this subsection shall be applied in lieu of, or in addition to, any of the other provisions of this Conservation Plan, in the discretion of the City, and shall be applied without regard to the status or nature of the customer.

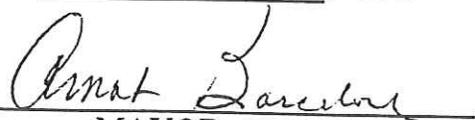
2. Public Health and Safety Not to be Affected. Nothing contained in this Conservation Plan shall be construed to require the City to curtail the supply of water to any customer when, in the discretion of the Department or City Manager, such water is required by that customer to maintain an adequate level of public health and safety.

K. SEVERABILITY: If any section, subsection, clause or phrase in this Conservation Plan or the application thereof to any person or circumstances is for any reason held invalid, the validity of the remainder of the Conservation Plan or the application of such provision to other persons or circumstances shall not be affected thereby. The City Council declares that it would have passed this Conservation Plan and each section, subsection, sentence, clause, or phrase thereof irrespective of the fact that one or more sections, subsections, sentences, clauses, or phrases or the application thereof to any person or circumstances be held invalid.

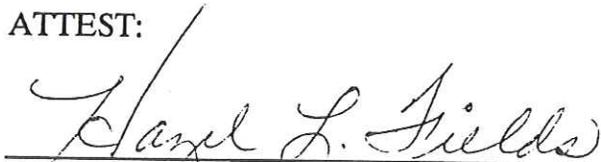
L. CHARGES: The City shall impose the charges set forth herein.

Section 2: The City Clerk shall certify to the adoption of this Resolution.

APPROVED and ADOPTED this 12th day of September, 1991.


MAYOR PRO TEM

ATTEST:


CITY CLERK

**APPENDIX L:
INTEGRATED 2011 REGIONAL WATER
MANAGEMENT AUTHORITY REPORT**

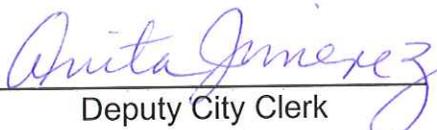


City of Santa Fe Springs

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State of California)
County of Los Angeles)ss
City of Santa Fe Springs)

I, Anita Jimenez, Deputy City Clerk of the City of Santa Fe Springs, do hereby certify that the attached is a true and exact copy of Resolution No. 9330, which was adopted by the City Council of the City of Santa Fe Springs on June 23, 2011.



Deputy City Clerk

July 7, 2011
Date

(Seal)

RESOLUTION NO. 9330

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SANTA FE SPRINGS
AUTHORIZING AND APPROVING A LETTER OF AGREEMENT BETWEEN AND AMONG
THE CITIES OF DOWNEY, HUNTINGTON PARK, LAKEWOOD, LONG BEACH, LYNWOOD,
NORWALK, PARAMOUNT, PICO RIVERA, SANTA FE SPRINGS, SIGNAL HILL, SOUTH
GATE, VERNON, WHITTIER, AND PICO WATER DISTRICT FOR ESTABLISHING A
REGIONAL ALLIANCE TO COMPLY WITH SB X7-7,
THE WATER CONSERVATION ACT OF 2009**

WHEREAS, Senate Bill X7-7, the Water Conservation Act of 2009, was signed into law in 2009; and

WHEREAS, the Water Conservation Act of 2009 sets a goal for urban water suppliers to reduce per-capita water use by 20 percent by the year 2020; and

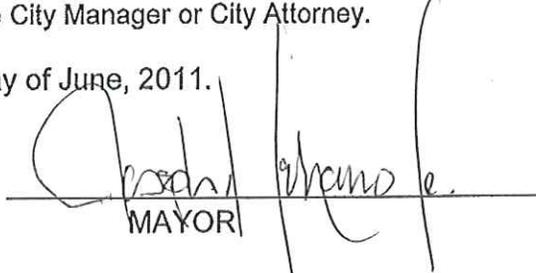
WHEREAS, the City desires to participate in a regional alliance for the purposes of compliance with the Water Conservation Act of 2009; and

WHEREAS, the City further supports the regional water planning program sponsored by the Los Angeles Gateway Region Integrated Water Management Joint Powers Authority.

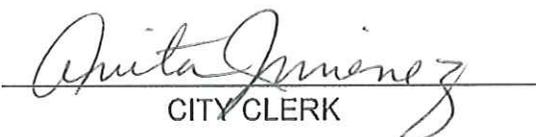
NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Santa Fe Springs that it does hereby authorize and approve a Letter of Agreement between and among the cities of Downey, Huntington Park, Lakewood, Long Beach, Lynwood, Norwalk, Paramount, Pico Rivera, Santa Fe Springs, Signal Hill, South Gate, Vernon, Whittier, and Pico Water District for establishing a regional alliance to comply with SB X7-7, the Water Conservation Act of 2009.

BE IT FURTHER RESOLVED that the City Manager is hereby authorized and directed to take all actions to effectuate this agreement for and on behalf of the City of Santa Fe Springs including execution, if necessary, in substantially similar form to the agreement attached hereto as Exhibit "A," subject to minor modifications by the City Manager or City Attorney.

APPROVED and ADOPTED this 23rd day of June, 2011.


MAYOR

ATTEST:


CITY CLERK