

Appendix F
Service Provider Correspondence (VOLUME II)



Appendices

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**CITY OF INDUSTRY GENERAL PLAN UPDATE DRAFT EIR
School Questionnaire**

Heckle

1. See the table below and make any additions/changes as necessary to schools in and near the City of Industry boundaries that are within the District's service area. Please provide any information available on the schools' existing student capacity.

<i>School Name (and Grade Span)</i>	<i>Location</i>	<i>Academic Year 2008-09 Enrollment</i>	<i>Capacity</i>
Mountain View School District			
Maxson Elementary School (K-6)	12380 Felipe Street, El Monte	773	934
Madrid Middle School (6-8)	3300 Gilman Road, Industry	1,105	1,188
Charles Kranz Intermediate School (7-8)	12460 Fineview Street, El Monte	1,102	1,212

2. In general, what are the conditions of the existing school(s)? Are they overcrowded?

Schools are in good condition. Not overcrowded.

3. Does the District have plans for building any new schools within or near the City of Industry? If so, where?

No plans for building.

4. Previous research for the proposed project states that the District charges \$2.97 per square foot of residential construction and \$0.47 per square foot of commercial construction. Are these still accurate? Does the District charge development impact fees for any other types of construction?

Yes, it is accurate. No other fees are charged.

CITY OF INDUSTRY GENERAL PLAN UPDATE DRAFT EIR
School Questionnaire

5. How would the proposed General Plan Update affect the existing school service in the City of Industry and the surrounding communities?

No significant affect.

6. Please add any comments you may wish to make regarding this project.

Response Prepared By:

Steve Thomas	Assistant Superintendent, Business Services
Name	Title

Mountain View School District	May 12, 2011
Agency	Date

From: Diana Thorneycroft [dthorneycroft@walnutvalley.k12.ca.us]
Sent: Thursday, December 08, 2011 11:57 AM
To: Elizabeth Kim
Subject: RE: SB 50 Development Impact Fees

Hi Elizabeth,
 Yes, those are the correct fees the district collects for development.
 Thank you,
 Di

Diana M. Thorneycroft

Sr. Administrative Assistant
 Business Services
 (909) 595-1261 ext. 31329

From: Elizabeth Kim [mailto:ekim@planningcenter.com]
Sent: Thursday, December 08, 2011 11:42 AM
To: Diana Thorneycroft
Subject: SB 50 Development Impact Fees

Hello Ms. Thorneycroft,

I'm working on the City of Industry General Plan Update Environmental Impact Report. I believe you corresponded with Lea Boyer from my office and we appreciate your help on getting the school capacity information.

However, it was missing the requested information on the development impact fees schedule pursuant to Senate Bill 50. Can you please let us know if the District still collects **\$2.97 per square foot** for residential construction and **\$0.47 per square foot** for commercial construction? Please provide the updated information if different. Thank you very much for your assistance in this matter.

Sincerely,

Our corporate office has moved. Please update your records to reflect the address change.

Elizabeth Kim
 Associate Planner

THE PLANNING CENTER | DC&E
 3 MacArthur Place Suite 1100 | Santa Ana CA 92707
 714.966.9220 | 714.966.9221 (f)
 ekim@planningcenter.com

www.planningcenter.com | www.dceplanning.com

 **Think environment before printing.**

From: Diana Thorneycroft [mailto:dthorneycrof@walnutvalley.k12.ca.us]
Sent: Friday, September 09, 2011 3:08 PM
To: Leah Boyer
Subject: RE: Information on School Capacities

Please see attached.

Di

Diana M. Thorneycroft
 Administrative Assistant Business Services
 Walnut Valley Unified School District
 880 S. Lemon Ave.
 Walnut, CA. 91789
 (909) 595-1261 ext. 31329
 (909) 839-1209 fax

From: Leah Boyer [<mailto:lboyer@planningcenter.com>]
Sent: Thursday, September 08, 2011 9:25 AM
To: Diana Thorneycroft
Subject: RE: Information on School Capacities

I work for an urban planning consulting firm (The Planning Center | DC&E). We prepare environmental impact reports for proposed development projects. As part of the environmental analysis, we must determine the potential for projects to affect existing and proposed schools (i.e., by causing a population increase which would increase student population). In this case, I am preparing an environmental impact report for the City of Industry. They are updating their general plan for the entire city, which would allow for an increase in employment in the City. Although Industry does not have substantial housing, it has potential to indirectly increase the population in surrounding communities so we still have to look at the potential impacts to schools.

I've attached a copy of a letter I sent to Walnut Valley USD last May. I sent it to the maintenance department which is probably why I didn't get a response. This letter helps explain the project. It would be great if someone could help out by filling out the questionnaire.

I hope this is not more information than you were looking for! I appreciate your assistance.

Our corporate office has moved. Please update your records to reflect the address change.

Leah Boyer
 Planner

THE PLANNING CENTER | DC&E
 3 MacArthur Place Suite 1100 | Santa Ana CA 92707
 714.966.9220 | 714.966.9221 (f)
 lboyer@planningcenter.com
www.planningcenter.com | www.dceplanning.com

 **Think environment before printing.**

From: Diana Thorneycroft [<mailto:dthorneycrof@walnutvalley.k12.ca.us>]
Sent: Thursday, September 08, 2011 8:41 AM
To: Leah Boyer
Subject: RE: Information on School Capacities

Ms. Boyer,

You have contacted the correct office for information on school capacities. Can you tell me a little about your company and the reason for collecting this information? I would like to have the big picture when presenting this request to my CFO, Mr. Jack LeBrun.

Thank you

Diana

Diana M. Thorneycroft
Administrative Assistant Business Services
Walnut Valley Unified School District
880 S. Lemon Ave.
Walnut, CA. 91789
(909) 595-1261 ext. 31329
(909) 839-1209 fax

From: Leah Boyer [<mailto:automailer@educationalnetworks.net>]

Sent: Tuesday, September 06, 2011 3:55 PM

To: dthorneycroft@walnutvalley.k12.ca.us

Subject: Information on School Capacities

This email is automatically sent from http://www.wvusd.k12.ca.us/apps/pages/index.jsp?uREC_ID=54505&type=d&termREC_ID=&pREC_ID=staff by IP address 74.202.14.18 (computer id: 0.7597830092628114) on Tuesday, September 6, 2011 at 03:54 PM US/Pacific timezone.

From: Leah Boyer <lboyer@planningcenter.com>

Subject: Information on School Capacities

Ms. Thorneycroft,

I am looking for information on existing school capacities. Can you direct me to the correct person to contact regarding this information?

thanks!

Leah Boyer
Associate Planner
The Planning Center|DC&E

[If you feel this email contains abusive content, please click here.](#)

District Overview

- ◆ Established in 1970
- ◆ Provides K-12 and adult education
- ◆ Encompasses approximately 21.5 square miles
- ◆ Serves the communities of Walnut, Diamond Bar, West Covina, Industry and certain unincorporated areas of Los Angeles County
- ◆ Operates 15 schools
 - 9 elementary schools
 - 3 middle schools
 - 2 comprehensive high schools
 - 1 continuation high school
- ◆ Governed by five-member Board of Trustees
- ◆ Estimated District population of 58,977 (1)
- ◆ 2010-11 projected enrollment of 14,723

(1) Source: U.S. Census Bureau, 2005-2009 American Community Survey 5-Year Estimate.



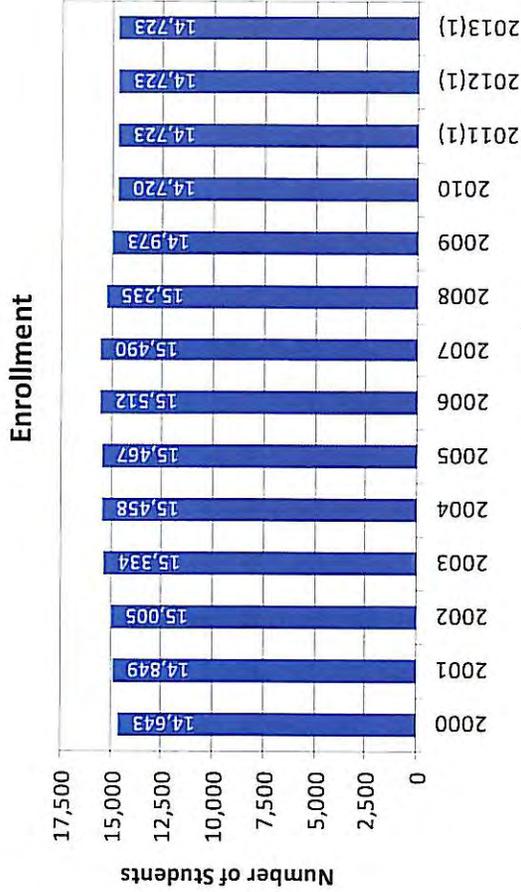
Current Facilities

School Site	Grades Served	Year Built	Acreage	Square Footage	2009-10 Enrollment	Total Capacity	Year Modernized
Castle Rock Elementary	K-5	1964	9.5	46,488	503	600	2003
Collegewood Elementary	K-5	1965	8.3	39,432	630	650	2004
Evergreen Elementary	K-5	1965	10.8	45,006	576	600	2004
Maple Hill Elementary	K-5	1980	8.7	39,793	522	550	-
C.J. Morris Elementary	K-5	1976	10.6	40,753	453	550	-
Quail Summit Elementary	K-5	1987	11.1	49,057	590	600	1996
Vejar Elementary	K-5	1966	10.0	43,282	525	600	2005
Walnut Elementary	K-5	1966	8.7	38,230	420	450	2007
Westhoff Elementary	K-5	1989	7.8	58,263	669	700	2004
Chaparral Middle	6-8	1977	23.2	78,229	1,260	1,300	2010
South Pointe Middle	6-8	1987	33.9	91,661	1,047	1,200	1996
Suzanne Middle	6-8	1962	14.0	87,929	1,400	1,400	2005
Ron Hockwalt Academy	9-12	1954	5.1	23,687	94	100	-
Diamond Bar High	9-12	1983	31.5	223,296	3,111	3,200	2010
Walnut High	9-12	1969	40.4	206,571	2,920	3,000	2004
Total					14,720	15,500	

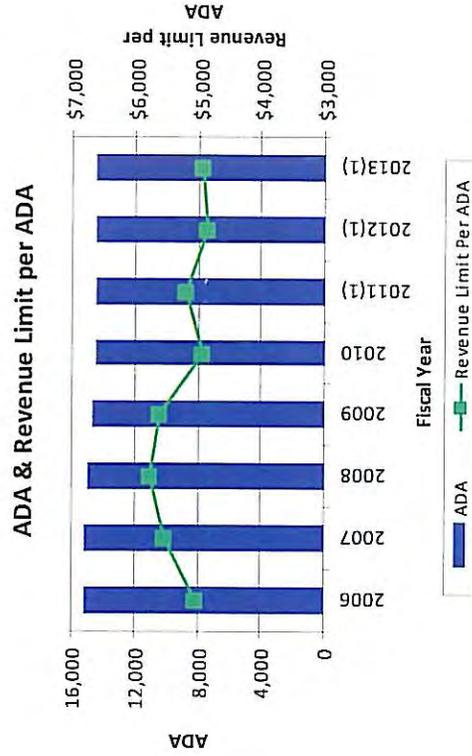


Enrollment, ADA and Revenue Limit

- ◆ Projected 2010-11 enrollment of 14,723
- ◆ Future enrollment is projected to remain stable
- ◆ Projected 2010-11 ADA of 14,456
- ◆ Projected 2010-11 revenue limit per ADA of \$5,196.58



Fiscal Year	ADA	ADA as % of Enrollment	Revenue Limit per ADA
2006	15,170	97.8%	\$5,045
2007	15,205	98.2%	\$5,516
2008	14,955	98.2%	\$5,768
2009	14,683	98.1%	\$5,619
2010	14,456	98.2%	\$4,939
2011 ⁽¹⁾	14,456	98.2%	\$5,197
2012 ⁽¹⁾	14,456	98.2%	\$4,848
2013 ⁽¹⁾	14,456	98.2%	\$4,942



(1) Projected.



CITY OF INDUSTRY GENERAL PLAN UPDATE DRAFT EIR
Water Service Questionnaire

1. Does the San Gabriel Valley Water Company (SGVWC) provide potable and/or non-potable water to the City of Industry?

Yes. San Gabriel Valley Water Company ("San Gabriel") provides water service to customers located in those portions of the City of Industry that are within San Gabriel's service area.

San Gabriel also provides the City of Industry Waterworks System with 100% of its water supply through two interconnections between their respective water systems.

2. Does SGVWC meet the California Department of Water Resources' requirements to adopt an Urban Water Management Plan? If so, is the 2010 UWMP available and how can a copy be acquired?

Yes. San Gabriel is updating its 2010 Urban Water Management Plan ("Plan"). The Plan is available on San Gabriel's web site at www.sgvwater.com.

3. What is the total annual use of water in SGVWC's service area for the last ten years? (acre-feet)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Potable	40,903	43,517	43,939	45,601	40,733	41,902	42,109	39,680	36,824	33,118
Non-potable (if applicable) (Reclaimed)	158	157	93	138	98	692	2,020	1,654	1,213	2,018

4. For the purpose of projecting future water use, does SGVWC have water demand factors for different land uses? For example, how many gallons of water are used daily per every square foot of retail space, on average? Please provide water demand factors for residential, employment, commercial, recreation/open space, and institutional land uses, if available.

San Gabriel does not have this information.

5. Are there any deficiencies of existing water supply infrastructure that would be aggravated by the proposed General Plan Update? (i.e., out-of-date pipelines, contaminated wells, etc.)

San Gabriel has no water supply infrastructure deficiencies that would be aggravated by the proposed General Plan Update. San Gabriel does have some contaminated wells but the water produced from those wells is being treated using California Department of Public Health Best Available Treatment Technologies. The water supplied by San Gabriel meets all state and federal safe drinking water standards and regulations.

CITY OF INDUSTRY GENERAL PLAN UPDATE DRAFT EIR
Water Service Questionnaire

6. Does SGVWC plan to increase its service capacity? If so, do these plans include increasing pipelines, wells, treatment stations? Where and when would these expansions take place?

No. San Gabriel does not plan to increase its service capacity. However San Gabriel does plan to replace lost capacity when needed and warranted due to the aging of its infrastructure. San Gabriel will also add treatment systems when necessary and required to meet state and federal safe drinking water standards and regulations.

7. Does SGVWC fund infrastructure expansions? What funding sources are used for the construction of new infrastructure? For maintenance and operation?

San Gabriel's infrastructure expansions as well as maintenance and operation costs are funded in the following was:

- 1) Company funds.
- 2) Developer advances and contributions.
- 3) Grant funding from the Water Quality Authority or state and federal funding sources.
- 4) Re-imburement from responsible parties in EPA operable units.

8. How would the proposed General Plan Update affect the existing water supply service in the City of Industry? Are there areas of specific concern or areas of new development that would require additional water supply facilities?

The city's General Plan Update will have no affect on San Gabriel's ability to provide water service to its customers.

9. Please add any comments you may wish to make regarding this project.

No additional comments.

Response Prepared By:

Dan Arrighi	Water Resources Manager
<hr/> Name	<hr/> Title
San Gabriel Valley Water Company	June 22, 2011
<hr/> Agency	<hr/> Date



MEMORANDUM

TO: Ms. Leah Boyer
The Planning Center
1580 Metro Drive
Costa Mesa, CA 92626

FROM: Craig Gott - Vice President, Engineering

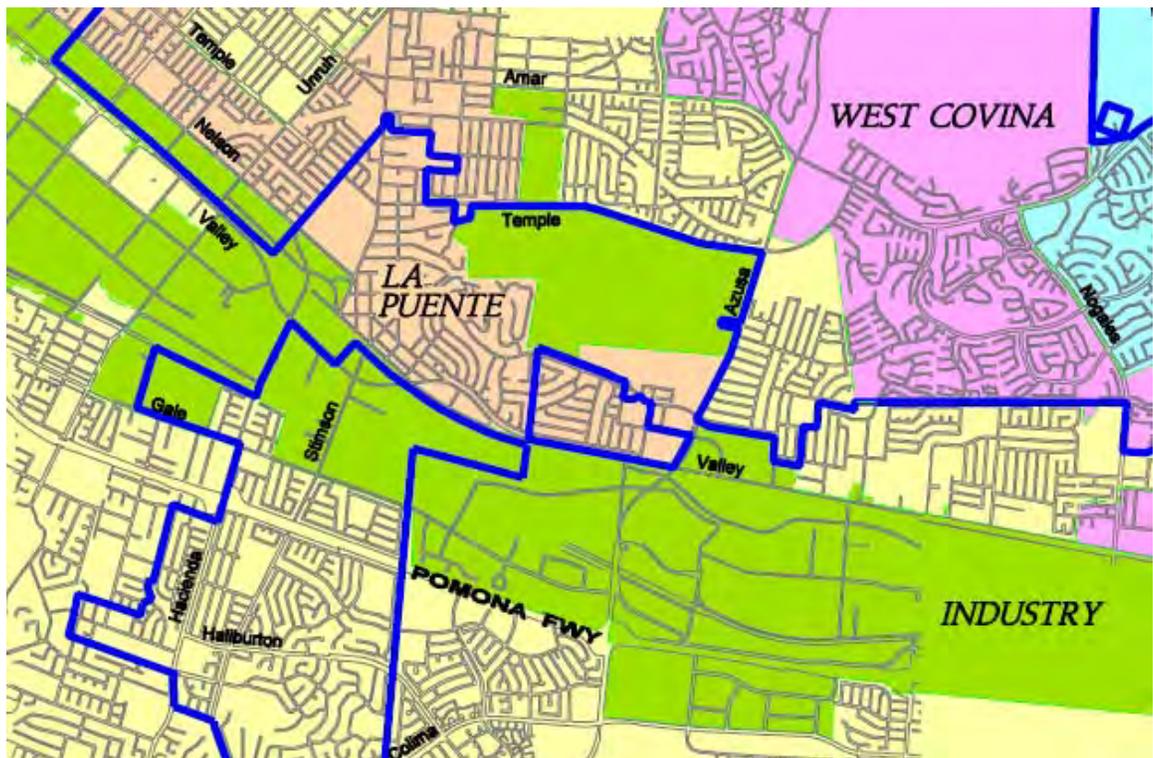
DATE: May 24, 2011

SUBJECT: Response to City of Industry General Plan Update Questionnaire

Dear Ms. Boyer,

The following has been prepared in response to your request for May 4, 2011 letter and associated questionnaire. Please call me at 626-543-2554 if you have any questions regarding the responses below.

1. Suburban Water Systems (Suburban) provides potable water to a portion of the City of Industry. The green shaded area in the exhibit below shows the City of Industry, and the blue lines represent Suburban's service area boundary.



2. The City of Industry is served by Suburban's San Jose Hills district, and is located in Hacienda Heights portion of the San Jose Hills service area permitted by California Department of Public Health (CDPH).
3. Suburban has ten operational wells in the Main San Gabriel Basin, with one well, Plant 126 W-2, classified as standby.
4. Suburban's 2010 Urban Water Management Plan (UWMP) is being prepared in accordance with the revised 2011 deadline. Suburban's 2005 UWMP was submitted to the Department of Water Resources, but to date has not been adopted. A CD-Rom copy of the 2005 UWMP is attached to this response for your review.
5. The following table summarizes Suburban's San Jose Hills system production for the past ten years in Acre Feet per Year (AFY):

Year	Potable	Non-Potable
2000	33,716	0
2001	33,846	0
2002	35,630	0
2003	33,553	0
2004	34,335	0
2005	32,167	0
2006	33,402	0
2007	34,724	0
2008	32,457	0
2009	30,487	0

6. Suburban does not have demand factors for different types of use.
7. Suburban has no deficiencies of existing water supply infrastructure that would be aggravated by the proposed general plan update.
8. Suburban does not plan to increase its service capacity.
9. Per rule 15 of Suburban's California Public Utilities Commission (CPUC) approved tariffs infrastructure expansions are to be funded by the developers that cause the need for expansion. Infrastructure replacement is funded by Suburban.
10. Redevelopment projects often trigger requirements that are greater than the current system can provide (increased fire flow availability etc.). The need for water facility modification are summarized below, and are typically at the developers expense:

- a. Suburban requires separate service lines and meters for each dwelling on a lot, most existing customers do not have multiple services and facilities are typically updated when facilities are modified by a developer.
- b. The need for fire protection facilities (fire service lines, and fire hydrants) is dictated by the fire department with jurisdiction over an area (for City of Industry it is Los Angeles County Fire Department) and not by Suburban. This is determined on a project by project basis and may require the modification (addition, increase etc.) of distribution facilities to support increased flow requirements.
- c. Utility facilities are sometimes installed within easements on private property. The redevelopment of these properties often requires the relocation of these facilities and easements.

11. No additional comments.

Jorge Estrada

From: Craig Gott <Cgott@swwc.com>
Sent: Tuesday, September 20, 2011 8:19 AM
To: Leah Boyer
Cc: Richard Rich
Subject: FW: response to city of industry questionnaire

Leah,

Please see the response to your questions below in red.

Regards,

Craig D. Gott, P.E.

Vice President, Engineering | Suburban Water Systems
1211 E. Center Court Drive | Covina, CA 91724-3603
Phone 626.543.2554 | Fax 626.331.4848 | E-mail cgott@swwc.com
Visit us at www.suburbanwatersystems.com

From: Richard Rich
Sent: Tuesday, September 20, 2011 8:02 AM
To: Craig Gott
Subject: FW: response to city of industry questionnaire

Craig,

See answers in Red below.

Thank you

Rich

From: Leah Boyer [<mailto:lboyer@planningcenter.com>]
Sent: Wednesday, August 03, 2011 9:54 AM
To: Craig Gott
Subject: RE: response to city of industry questionnaire

Craig,

I have a question regarding the 2010 UWMP for SWS that you may be able to answer, or direct me to someone who can. I am using the UWMP to complete the water supply analysis in the environmental impact report for the City of Industry's General Plan Update.

In Chapter 2.5 of the UWMP, Table 2-10 shows the projected water demands for the service area through year 2035. I am trying to figure out how the recycled water credit and mandatory SBX7-7 conservation requirements are added/subtracted from the baseline to get the target water demand. I've attached the section of the 2010 UWMP that has this table.

Specifically, my questions are:

1. For the San Jose Hills Area, the baseline for year 2015 is 28,970. I'm assuming the recycled water use is subtracted from the demand (as a credit). This gives 27,560. When I add the "conservation needed" number (-3,540), I get 31,100, which is close to the Target Water Demand but is off by 10. I think the numbers are off? This is the case for all future years on the table.

Yes, the calculation is $\text{Target Demand} = \text{Base Demand} - \text{RW} - \text{Conservation}$.

The numbers are slightly off by 10 due to rounding. The numbers shown in the table are based off of calculation results which are rounded in the table to avoid showing too many significant figures. The difference of 10 is less than 1/10 of a percent of the total demands.

2. Why is the "conservation needed" figure negative for San Jose Hills but positive for Whittier/La Mirada? Is this just reflecting how the San Jose Hills service area does not need to reduce demand in order to meet its target water demand?

Yes, the conservation needed value for the SJH area is negative because the base demand is already less than the target, so no conservation is needed, whereas in the WLM area, the base is higher than the target so conservation is needed in that area.

I appreciate your assistance on this matter!

Leah Boyer
Planner

THE PLANNING CENTER | DC&E
1580 Metro Drive | Costa Mesa CA 92626
714.966.9220 | 714.966.9221 (f)
lboyer@planningcenter.com
www.planningcenter.com | www.dceplanning.com

 Think environment before printing.

From: Craig Gott [<mailto:Cgott@swwc.com>]
Sent: Tuesday, May 24, 2011 1:07 PM
To: Leah Boyer
Subject: response to city of industry questionnaire

Good afternoon,

Per our conversation this morning please see the attached response to your May 4, 2011 letter.

Please contact me if you have any questions regarding the responses.

Regards,

Craig D. Gott, P.E.

Vice President, Engineering | Suburban Water Systems
1211 E. Center Court Drive | Covina, CA 91724-3603
Phone 626.543.2554 | Fax 626.331.4848 | E-mail cgott@swwc.com
Visit us at www.suburbanwatersystems.com

WALNUT VALLEY WATER DISTRICT



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Website: www.wvwd.com • Fax: (909) 594-9532

July 19, 2011

Ms. Leah Boyer
The Planning Center
1580 Metro Drive
Costa Mesa, CA 92626

RECEIVED JUL 21 2011

Dear Ms. Boyer:

Re: Preparation of the City of Industry General Plan Update Draft EIR

In response to your request for information, the District is providing the following responses on your Water Service Questionnaire. If you have any questions or require additional information, please contact me at (909) 595-1268, extension 244.

Very truly yours,

WALNUT VALLEY WATER DISTRICT

A handwritten signature in black ink that reads "Erik Hitchman". The signature is written in a cursive style.

Erik Hitchman
Assistant General Manager/Chief Engineer

EH:

Enclosure

CITY OF INDUSTRY GENERAL PLAN UPDATE DRAFT EIR
Water Service Questionnaire

1. Does the Walnut Valley Water District (the District) provide potable and/or non-potable water to the City of Industry?

The District provides both potable and non-potable water service within a portion of the City of Industry. The District provides this service within the City boundary from roughly Nogales Street easterly.

2. According to the District's website, the District maintains and operates the water system in its service area. Does this mean that all Industry water supply infrastructure in the District's service area, including pipelines, treatment plants, pumping stations, etc., is owned by the City but maintained by the District? Please provide information on ownership of infrastructure and responsibility for maintaining and operating the infrastructure.

The District owns, operates, and maintains all of its water system facilities including those located within the City of Industry.

3. Does the District have an adopted Urban Water Management Plan? If so, is the 2010 UWMP available and how can a copy be acquired?

The District's Board of Directors adopted the 2010 UWMP at their meeting held on June 20th, 2011. A copy has been provided to John Ballas, City Engineer, per his request.

4. What is the total annual use of water in the District's service area for the last ten years?

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Potable	24,306	22,689	24,919	24,020	23,819	22,465	23,174	24,339	23,306	21,453	19,667
Non-potable (if applicable)	1,058	1,445	1,489	1,048	1,464	1,496	1,842	2,103	2,218	2,146	1,750

5. For the purpose of projecting future water use, does the District have water demand factors for different land uses? For example, how many gallons of water are used daily per every square foot of retail space, on average? Please provide water demand factors for residential, employment, commercial, recreation/open space, and institutional land uses, if available.

Yes, the District has water demand factors for various types of developments. Attached for your information is a copy of Chapter 3 of the District's 2002 Water System Master Plan (WSMP).

CITY OF INDUSTRY GENERAL PLAN UPDATE DRAFT EIR
Water Service Questionnaire

6. Are there any deficiencies of existing water supply infrastructure that would be aggravated by the proposed General Plan Update? (i.e., out-of-date pipelines, contaminated wells, etc.)

The District assumed development of existing vacant parcels as part of the 2002 WSMP. The type of development was based on the general plan designation from each of the overlying jurisdictions. Assuming that the proposed update will result in similar types of land use and potential water demands, the District has planned for the future development of vacant parcels. However, it should be recognized that the District is 100% dependent on costly imported water from the Metropolitan Water District of Southern California (MWD) for its potable water supplies.

Although the District will normally be able to purchase water in sufficient amounts from MWD to serve the needs of current and future customers, during times of severe water shortages, the District will be subject to MWD's Water Supply Allocation Plans which may require a mandatory reduction in water use.

7. Does the District plan to increase its service capacity? If so, do these plans include increasing pipelines, wells, treatment stations? Where and when would these expansions take place?

The District, based on the recommendations made in the 2002 WSMP, is currently pursuing the installation of emergency generators at several of its critical pumping stations to ensure that demands can be met during power outages.

Also, the District is pursuing the development of a number of projects that will improve the overall reliability of our supplies. As stated above, the District is 100% dependent on MWD for its potable water supply, and as such is subject to short term as well as long term supply reductions imposed by MWD.

8. Does the City or District fund infrastructure expansions? What funding sources are used for the construction of new infrastructure? for maintenance and operation?

The source of funding for water system improvements depends on the need for the improvement. In general, facilities constructed to serve a particular development are funded by the developer. The District does however fund portions of projects that have been identified as having broader benefits to the District as a whole. The District's funding for ongoing and routine operation and maintenance as well as system repair and replacement are funded through the District's water rates.

9. How would the proposed General Plan Update affect the existing water supply service in the City of Industry? Are there areas of specific concern or areas of new development that would require additional water supply facilities?

The proposed update would not affect existing water supply service in the City of Industry.

However, consistent with past District practice that new development pays for its impact on the system, new development within the City of Industry or any other area within the District will have to pay its own way. This will include direct financial contribution to the District as it continues to provide long term water supply reliability to meet ongoing demands associated with proposed projects.

This may be accomplished through the implementation of projects or programs that will offset or reduce existing potable water demands, such as conservation or recycled water system expansion. The District will require the developer to directly fund its fair share of such projects or programs.

CITY OF INDUSTRY GENERAL PLAN UPDATE DRAFT EIR
Water Service Questionnaire

10. Please add any comments you may wish to make regarding this project.

Response Prepared By:

Erik Hitchman

Assistant General Manager/Chief Engineer

Name

Title

Walnut Valley Water District

July 19, 2011

Agency

Date

INTRODUCTION

The primary purpose of the water distribution system is to provide water to the Walnut Valley Water District's (WVWD) end users for various needs including consumption, irrigation, fire protection plus many other uses. These water users are located throughout the distribution system. Water is supplied to the end users through metered connections. The amount of water required by the water distribution system depends on the type of water users (commercial, residential, etc.), the density or number of users, climate and many other factors. To accurately model and analyze WVWD's system, a method of allocating the demands within the distribution system is essential. It is not appropriate to simply total up all of the metered water use and distribute the demands evenly throughout the system. The method used in this master plan to distribute water demands is discussed in this chapter. In addition to the known water demands in the system, there are additional water demands on the system that cannot be measured directly. This water usage is known as unaccounted-for water use. An estimate of the unaccounted-for water demands must also be quantified and included in the total system demands. These demands are also identified in this chapter.

One commonly used method of grouping water users is based on their land use (or zoning). Land use can be a very good measure of water use. Also, land use information is readily available to most water agencies and can be applied to existing areas as well as future developments. Using this method, the water demands were calculated using the acreage of a specified area and a water demand factor, which represents a measure of water use per acre based on the land use or density of the area.

In order to accurately represent water demands in the system, the water demands were adjusted based on the location and historical water consumption of large single-location water users in the service area. In addition, the water demands were modified using density factors to account for areas within the District that are currently underdeveloped and undeveloped. The water demand in these areas was multiplied by density factors to obtain the water use for various development conditions. The density factor ranges from 0.0 for undeveloped areas that do not have any demand to 1.0 during ultimate development conditions when the land is fully developed and water use is at its maximum.

After the water demands were adjusted based on the top water users and development conditions, the resulting water demands were then calibrated to the historical consumption and production data provided by WVWD. The resulting demands represent average day demands. Water system demands for other demand periods, such as maximum day and peak hour, were also developed and calibrated.



EXISTING WATER DEMANDS

Ten years of historical water consumption records were used to establish the existing water demands for the potable water system. The data consisted of bi-monthly water used by water customers, grouped according to their water pressure zone. Table 3-1 summarizes the data obtained for this study. As shown in the table, the average annual water usage by WWWD is 20,391 ac-ft/yr. This figure equates to an average daily usage of 18.2 MGD. The water consumption varies slightly from year to year due to many factors including changes in population, economics, weather, conservation efforts, and other factors. For example, water demands were significantly reduced in 1991 when conservation measures were imposed due to the drought and again in 1998 due to the unusually heavy rains associated with "El Niño". By using enough historical information, an average water use can be established that is not heavily influenced by one year of unusual water use. This multi-year average is important to establish a realistic forecast of water consumption. However, for water supply planning (see Chapter 4), the maximum water use year 1999-2000 must be considered to ensure adequate supply capacity in the future. This issue is addressed in Chapter 4, Water Supply. Recycled water demands are provided through a separate system and were not included in Table 3-1.

TABLE 3-1
Historical Annual Potable Water Demands By Pressure Zone⁽¹⁾
(ac-ft/yr)

Year	770	875	930	970R	1000H	1000R	1043	1050	1175R	1200D	1200W	1275H	1350H	1350D	Annual Total ⁽²⁾
90-91	5,640	455	4,183	122	25	94	523	3,191	95	3,649	526	149	6	1,925	20,583
91-92	5,001	377	3,938	107	33	82	452	2,698	71	3,076	458	129	45	1,618	18,085
92-93	5,391	399	5,331	119	38	87	488	2,876	75	3,429	543	138	66	1,788	20,768
93-94	5,476	442	3,877	116	38	84	490	3,055	71	3,557	558	146	109	1,843	19,862
94-95	5,620	413	3,949	115	43	87	517	2,948	72	3,476	577	139	162	1,737	19,855
95-96	5,603	426	4,078	120	42	87	537	3,124	67	3,803	640	149	180	1,804	20,660
96-97	5,781	434	4,147	120	51	92	553	3,214	75	3,890	723	151	195	1,882	21,308
97-98	5,429	427	3,810	107	43	82	477	2,838	78	3,428	611	130	178	1,682	19,320
98-99	5,387	446	3,934	116	46	88	502	3,076	79	3,755	684	133	200	1,837	20,283
99-00	6,208	491	4,385	133	57	95	594	3,615	93	4,298	798	147	209	2,054	23,177
Avg.	5,554	431	4,163	118	42	88	513	3,064	78	3,636	612	141	135	1,817	20,391

⁽¹⁾ Excludes exported water, recycled water demands and makeup water. Unaccounted-for water demands are not included.

⁽²⁾ Totals may not agree due to rounding.



Makeup Water Demands

A Recycled Water System Master Plan (CGvL, 1999) was recently completed for WVWD and was used in this study as the basis for master planning the recycled water usage as this related to the potable water system master plan. Historical non-domestic water demands on the recycled water system are shown in Table 3-2. The water provided through the recycled water system for non-domestic uses helps offset the need for additional potable water supplies. However, under some conditions the amount of recycled water produced is not sufficient to meet the demands and potable water must be used to supplement the recycled water supply. The water provided to the recycled water system from the domestic system is known as "makeup water". The amount of makeup water required by the recycled water system varies from year to year as shown in Table 3-2. Although this table shows that the makeup water represents a supply to the recycled water system, it should be noted that this same flow rate represents a demand to the domestic system. Therefore, the flow rate 73 ac-ft/yr (45 gpm) was used in this master plan as the makeup water demand based on the 10-year average shown in Table 3-2.

**TABLE 3-2
Historical Recycled Water Summary
and Domestic Makeup Water Supply**

Year	Recycled Demands ⁽¹⁾ (ac-ft/yr)	Recycled Supply ⁽²⁾ (ac-ft/yr)	Domestic Water Makeup Supply (ac-ft/yr)
1990-1991	1,723	1,509	213
1991-1992	1,514	1,464	50
1992-1993	1,621	1,457	164
1993-1994	1,490	1,483	7
1994-1995	1,527	1,378	149
1995-1996	1,800	1,759	42
1996-1997	1,867	1,848	19
1997-1998	1,450	1,448	2
1998-1999	1,797	1,781	16
1999-2000	2,117	2,052	65
Average	1,690	1,618	73

⁽¹⁾ Includes demands from Rowland Water District (RWD).

⁽²⁾ Includes Pomona WRP and Fairway Well.



INTRODUCTION

The primary purpose of the water distribution system is to provide water to the Walnut Valley Water District's (WVWD) end users for various needs including consumption, irrigation, fire protection plus many other uses. These water users are located throughout the distribution system. Water is supplied to the end users through metered connections. The amount of water required by the water distribution system depends on the type of water users (commercial, residential, etc.), the density or number of users, climate and many other factors. To accurately model and analyze WVWD's system, a method of allocating the demands within the distribution system is essential. It is not appropriate to simply total up all of the metered water use and distribute the demands evenly throughout the system. The method used in this master plan to distribute water demands is discussed in this chapter. In addition to the known water demands in the system, there are additional water demands on the system that cannot be measured directly. This water usage is known as unaccounted-for water use. An estimate of the unaccounted-for water demands must also be quantified and included in the total system demands. These demands are also identified in this chapter.

One commonly used method of grouping water users is based on their land use (or zoning). Land use can be a very good measure of water use. Also, land use information is readily available to most water agencies and can be applied to existing areas as well as future developments. Using this method, the water demands were calculated using the acreage of a specified area and a water demand factor, which represents a measure of water use per acre based on the land use or density of the area.

In order to accurately represent water demands in the system, the water demands were adjusted based on the location and historical water consumption of large single-location water users in the service area. In addition, the water demands were modified using density factors to account for areas within the District that are currently underdeveloped and undeveloped. The water demand in these areas was multiplied by density factors to obtain the water use for various development conditions. The density factor ranges from 0.0 for undeveloped areas that do not have any demand to 1.0 during ultimate development conditions when the land is fully developed and water use is at its maximum.

After the water demands were adjusted based on the top water users and development conditions, the resulting water demands were then calibrated to the historical consumption and production data provided by WVWD. The resulting demands represent average day demands. Water system demands for other demand periods, such as maximum day and peak hour, were also developed and calibrated.



EXISTING WATER DEMANDS

Ten years of historical water consumption records were used to establish the existing water demands for the potable water system. The data consisted of bi-monthly water used by water customers, grouped according to their water pressure zone. Table 3-1 summarizes the data obtained for this study. As shown in the table, the average annual water usage by WWVD is 20,391 ac-ft/yr. This figure equates to an average daily usage of 18.2 MGD. The water consumption varies slightly from year to year due to many factors including changes in population, economics, weather, conservation efforts, and other factors. For example, water demands were significantly reduced in 1991 when conservation measures were imposed due to the drought and again in 1998 due to the unusually heavy rains associated with "El Niño". By using enough historical information, an average water use can be established that is not heavily influenced by one year of unusual water use. This multi-year average is important to establish a realistic forecast of water consumption. However, for water supply planning (see Chapter 4), the maximum water use year 1999-2000 must be considered to ensure adequate supply capacity in the future. This issue is addressed in Chapter 4, Water Supply. Recycled water demands are provided through a separate system and were not included in Table 3-1.

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⁽¹⁾ Excludes exported water, recycled water demands and makeup water. Unaccounted-for water demands are not included.

⁽²⁾ Totals may not agree due to rounding.



Makeup Water Demands

A Recycled Water System Master Plan (CGvL, 1999) was recently completed for WVWD and was used in this study as the basis for master planning the recycled water usage as this related to the potable water system master plan. Historical non-domestic water demands on the recycled water system are shown in Table 3-2. The water provided through the recycled water system for non-domestic uses helps offset the need for additional potable water supplies. However, under some conditions the amount of recycled water produced is not sufficient to meet the demands and potable water must be used to supplement the recycled water supply. The water provided to the recycled water system from the domestic system is known as "makeup water". The amount of makeup water required by the recycled water system varies from year to year as shown in Table 3-2. Although this table shows that the makeup water represents a supply to the recycled water system, it should be noted that this same flow rate represents a demand to the domestic system. Therefore, the flow rate 73 ac-ft/yr (45 gpm) was used in this master plan as the makeup water demand based on the 10-year average shown in Table 3-2.

TABLE 3-2
Historical Recycled Water Summary
and Domestic Makeup Water Supply

Year	Recycled Demands ⁽¹⁾ (ac-ft/yr)	Recycled Supply ⁽²⁾ (ac-ft/yr)	Domestic Water Makeup Supply (ac-ft/yr)
1990-1991	1,723	1,509	213
1991-1992	1,514	1,464	50
1992-1993	1,621	1,457	164
1993-1994	1,490	1,483	7
1994-1995	1,527	1,378	149
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1996-1997	1,867	1,848	19
1997-1998	1,450	1,448	2
1998-1999	1,797	1,781	16
1999-2000	2,117	2,052	65
Average	1,690	1,618	73

⁽¹⁾ Includes demands from Rowland Water District (RWD).

⁽²⁾ Includes Pomona WRP and Fairway Well.



Exported Water

WVWD has export water connections with Suburban Water Systems and the Valencia Heights Water Company. Water provided to these agencies generates a demand on WVWD's water system. Table 3-3 lists the amount of water exported annually for the last 10 years.

Total Demands

The total demands on the domestic water system, excluding unaccounted-for water, for the last 10 years is shown in Table 3-3.

TABLE 3-3
Total Domestic Water System Demands⁽¹⁾
(ac-ft/yr)

Fiscal Year	Metered Domestic Demands⁽²⁾ (ac-ft/yr)	Exported Demands⁽³⁾ (ac-ft/yr)	Makeup Water⁽⁴⁾ (ac-ft/yr)	Net Domestic Demands (ac-ft/yr)
1990-1991	20,583	0	213	20,796
1991-1992	18,085	0	50	18,135
1992-1993	20,768	437	164	21,369
1993-1994	19,862	2,006	7	21,875
1994-1995	19,855	2,139	149	22,143
1995-1996	20,660	3,116	42	23,818
1996-1997	21,308	2,112	19	23,439
1997-1998	19,320	1,393	2	20,715
1998-1999	20,283	1,068	16	21,367
1999-2000	23,177	1,552	65	24,794
Average	20,391	1,382	73	21,846

⁽¹⁾ Excludes recycled water demands and unaccounted-for water.

⁽²⁾ Source: Table 3-1.

⁽³⁾ Source: Table 4-4.

⁽⁴⁾ Source: Table 3-2.



UNACCOUNTED-FOR WATER

The portion of the water system demands that cannot be measured or accounted for directly is known as unaccounted-for water usage. Unaccounted-for water usage is always present in water systems. Unaccounted-for water can be attributed to many factors. Some of the most common factors include leaks in pipelines, main breaks, fire hydrant testing and flushing, storage tank drainage and maintenance, inaccurate meters, and un-metered services. The sources of the unaccounted-for water are difficult, if not impossible to pinpoint. Therefore, it is assumed that the amount of unaccounted-for water is distributed equally throughout the water distribution system. The water system analysis must include the unaccounted-for water usage so that the total water production will balance with the total water demand.

One way to estimate the amount of unaccounted-for water usage is to subtract the known water demands from the water production totals. Typically, most systems experience a difference of about 5 to 10 percent, which is considered acceptable for master planning. Table 3-4 provides a comparison of the WVWD's water production and water consumption records over the past 10 years. Recycled water was excluded from the calculation of unaccounted-for water because it is provided through a separate distribution system. As shown in this table, the unaccounted-for water for the WVWD has averaged about 5.6 percent during the last ten years. This amount of unaccounted-for water consumption is considered acceptable.



TABLE 3-4
Historical Unaccounted-For Water

Year	Water Production ⁽¹⁾ (ac-ft/yr)	Water Demands ⁽²⁾ (ac-ft/yr)	Percent Unaccounted-For Water
1990-1991	22,019	20,796	5.6%
1991-1992	19,378	18,135	6.4%
1992-1993	22,052	21,369	3.1%
1993-1994	23,091	21,875	5.3%
1994-1995	22,905	22,143	3.3%
1995-1996	25,218	23,818	5.6%
1996-1997	25,005	23,439	6.3%
1997-1998	21,597	20,715	4.1%
1998-1999	23,497	21,367	9.1%
1999-2000	26,615	24,794	6.8%
Average	23,138	21,846	5.6%

⁽¹⁾ Source: Table 4-1. Includes exported water supply and makeup water for recycled system.

⁽²⁾ Source: Table 3-3. Includes exported water and makeup water, but excludes recycled water demands.

LARGE SINGLE-LOCATION WATER USERS

To account for water usage that may be significantly higher than estimated using land use, the location and historical water consumption of the forty-five largest single-location water users was considered. As shown in Figure 3-1, these water customers have the largest water use at a single-location or site within the District’s service area. The total water use data for the top forty-five water customers was obtained from the Walnut Valley Water District’s billing records for the period beginning January 1998 through December 1999.

As listed in Table 3-5, the total water use for each of the top users is shown based on the 24-month period and includes all meters serving the customer's site. This total consumption was used to rank the customers and to establish their average water use. The customer with the highest water demand was the Montefino Homeowners Association with a two year usage of 176,529 ccf (132.0 MG). This is equivalent to an average daily demand of 180,894 gpd.



**TABLE 3-5
Top 45 Largest Single-Location Water Users
January 1998 thru December 1999**

Rank	Customer Name	No. of Meters	District/Route (Street Location)	Water User Type	2-Year Total Demand (ccf)	Daily Average Demand (gpd)
1	Montefino Homeowners Assoc (8" Meters)	2	5/10 (M13)	Condos	176,529	180,894
2	Los Angeles County Sanitation	1	5/10 (L6)	Landfill	140,872	144,355
3	Diamond Bar Tennis Club HOA	2	5/10 (M11)	Residential	107,218	109,869
4	Cimarron Oaks No. 5	2	5/10 (Q7)	Condos	81,070	83,075
5	Friendly Village of WC	2	5/10 (C13)	Condos	69,105	70,814
6	Cimarron Oaks Village 8	2	5/10 (Q6& R6)	Condos	68,230	69,917
7	Werbel Homes	2	5/10 (L15&L16)	Residential	67,202	68,864
8	Libbey Glass Inc.	1	4/13 (J10)	Industrial	62,766	64,318
9	Sunset Crossing HOA	2	5/10 (Q7)	Condos	53,749	55,078
10	JCC (Crystal Ridge/Steeplechase) Tract 47850	2	13/1 (K19)	Irrigation	45,850	46,984
11	Montefino Homeowners Assoc (6" Meters)	2	5/10 (N13)	Condos	44,838	45,947
12	Cimarron Oaks Tract 43756-11	2	5/10 (R7)	Condos	44,784	45,891
13	Lincoln Properties	1	5/10 (J18)	Residential	44,646	45,750
14	Carlsberg Construction (Sugarpine Pl.)	2	5/10 (J18)	Residential	43,029	44,093
15	Sigma Plating Co. Inc.	1	5/7 (B14)	Commercial	42,874	43,934
16	Cross Keys of Walnut	2	5/10 (H13)	Mobile Homes	41,560	42,588
17	Pomona Islander	1	5/10 (M5)	Mobile Homes	41,477	42,503
18	Walnut U.S.D. (D.B.H.S.) Brea Canyon Rd.	3	15/2 (J16)	School	41,022	42,036
19	Walnut Unified School Dist (S.P.M.S.)	5	7/7 (G15)	School	40,678	41,684
20	Oak Knoll (Crystal Ridge HOA) Tract 47851	2	13/1 (K18)	Irrigation	40,668	41,674
21	SIR Developers Inc. DG -HOA	2	5/10 (M14)	Residential	40,225	41,220
22	Cimarron Oaks #40387	1	5/10 (Q7)	Condos	38,025	38,965
23	Hi Lea Mobile Park	8	5/10 (B15)	Mobile Homes	37,500	38,427
24	Diamond Bar Mobile Estates	1	5/10 (H12)	Mobile Homes	36,233	37,129
25	Marquis Property Mgmt (Washington Twnhms)	2	5/10 (J12)	Residential	35,186	36,056
26	Bocchi Laboratories Inc.	1	5/7 (F13)	Industrial	34,798	35,658
27	Country View 2-Condos	2	5/10 (K16)	Condos	34,596	35,451
28	Diamond Bar Village Apts	2	5/10 (M15)	Apartments	34,587	35,442
29	Fall Creek Homeowners Assoc	1	5/10 (N10)	Residential	33,702	34,535
30	Walnut Creek Mobile Estates	1	5/10 (G12)	Mobile Homes	32,840	33,652
31	Walnut Unified School District (Chaparrel)	1	12/5 (M14)	School	30,081	30,825
32	Seasons Senior Apartments	1	5/10 (P6)	Apartments	27,943	28,634



TABLE 3-5
 Top 45 Largest Single-Location Water Users
 January 1998 thru December 1999

Rank	Customer Name	No. of Meters	District/Route (Street Location)	Water User Type	2-Year Total Demand (ccf)	Daily Average Demand (gpd)
33	Walnut Hills Mobile Community	1	5/10 (M5)	Mobile Homes	25,929	26,570
34	Helene Curtis Industries Inc.	1	5/10 (B14)	Industrial	24,752	25,364
35	Pomona Unified School District (Lorbeer M.S.)	1	15/1 (P10)	School	23,452	24,032
36	Skyline Mutual	1	8/7 (E17)	Residential	23,350	23,927
37	Sysco Food Service of I.A	1	5/10 (F12)	Commercial	21,826	22,366
38	Walnut Unified School District (Castlerock)	1	14/6 (H18)	School	20,511	21,018
39	City of Diamond Bar (Pantera Dr/Park)	1	11/8 (R10)	Irrigation	19,904	20,396
40	Great River Food Corp.	1	5/7 (C13)	Industrial	17,548	17,982
41	Hong Kong Palace	1	8/7 (A15)	Commercial	17,386	17,816
42	Teledyne Casting	1	2/7 (L6)	Industrial	17,373	17,803
43	Bulk Transportation	1	4/7 (F11)	Commercial	16,872	17,289
44	Col RM Baker Home	1	8/7 (B15)	Residential	16,866	17,283
45	Walnut U.S.D. (D.B.H.S.) Pathfinder	4	15/2 (J16)	School	16,400	16,806

UNDEVELOPED AND UNDERDEVELOPED AREAS

In addition to accounting for the top single-location water users, the land use based water demand calculations were adjusted to account for areas that were undeveloped (vacant) or underdeveloped. Density factors were used to adjust the water demands to account for areas that are not fully developed. Fully developed areas were assigned a density factor of 1.0 indicating maximum water demand for the area. Underdeveloped areas, which are areas that are not fully developed based on current land use, were assigned a density factor between 0.0 and 1.0 depending on the estimated percent developed. Undeveloped areas were assigned a density factor of 0.0 indicating insignificant water demands for the area. The water demand in these areas was multiplied by the appropriate density factor to obtain the estimated water demand.



The planning departments for the Cities of Diamond Bar, Walnut, Industry, Pomona, and West Covina were contacted to obtain the underdeveloped and undeveloped areas within the WVWD service area. The Department of Regional Planning at the County of Los Angeles was also contacted to obtain development conditions for the unincorporated Rowland Heights area. The undeveloped and underdeveloped areas that were identified for this analysis are shown in Figure 3-2.

WVWD / CITY OF POMONA OVERLAP AREAS

There are several areas within the WVWD service area that are currently served by the City of Pomona water distribution system. During the time of development, the WVWD permitted the City of Pomona to serve these areas because the District did not have facilities in these areas at the time. As shown in Figure 3-2, the majority of this development is located north of Temple Avenue including residential, commercial, industrial, and public owned land (Cal Poly Pomona). In addition, the Lanterman State Developmental Hospital located south of Temple along the west side of the Orange (57) Freeway is currently served by the City of Pomona. Since the District does not currently serve these areas, a density factor of 0.0 was applied to these areas to zero out the water demands in the existing system analysis. The build-out water demands for these areas are further discussed in the Future Development section located at the end of this chapter. Refer to Build-Out Areas "P1", "P2", and "P3" listed in Table 3-14.

EXISTING WATER DEMANDS

System-wide water demands for the existing system were established using production data provided by WVWD. However, water demands are not constant within the service area, and therefore, cannot simply be evenly distributed to all areas of the District. To obtain an accurate representation of the water demands placed on the system, geographical allocation of the appropriate water demands must be considered. Actual demands vary from user to user depending on many factors, but land use is one of the primary determining factors for estimating water demands. Using land use to estimate water demands is common in master planning because the information is readily available, is relatively accurate and can be used for existing areas as well as future developments.



The existing water system demands for the WVWD service area were calculated using land use information obtained from the various local planning agencies, the quantity of each land use type, and an adjustment factor that takes into account large single-location water users and areas that are not fully developed. The resulting water demands represent the water system demands for an average day of the year. Seasonal and daily variations in the water demands are accounted for by adjusting the average day demands using a multiplier to simulate other demand periods. These multipliers, or peaking factors, were developed to calculate the maximum day and peak hour demands using average day demands as a basis.

Existing Land Use

Land use information was obtained from the County of Los Angeles and from each of the local cities for their respective area within WVWD's service area. Since the cities and county used different designations for similar land use types, a set of district-wide land use categories was established to consolidate the various agency specific land use types. Table 3-6 lists the land use categories developed for this master plan and the corresponding city and county land use (or zoning) designations. Figure 3-3 identifies the areas of each land use type within the WVWD service area.

TABLE 3-6
Land Use Classifications

Land Use Code	WVWD General Land Use Categories	AGENCY LAND USE / ZONING CLASSIFICATION					
		City of Diamond Bar	City of Industry	City of Pomona	Rowland Heights	City of Walnut	City of West Covina
RE	Residential Estate	RR	--	--	N1, N2	R1-20000, R1-30000, R1-40000, RPD-28500, RPD-37000	--
LDR	Low Density Residential	RL	--	--	U1, U2	R1-10000, R1-15000, R1-8500, RPD-12300, RPD-16800	R-1
MDR	Medium Density Residential	RLM, RM	--	R1	U3	R1-7200	--
HDR	High Density Residential	RMH, RH	--	--	U4, U5	R3	MF-20
OS	Open Space	OS	--	--	OS	--	--
PUB	Publicly Owned Land	PF, S, W	IPB	O	P	--	P-B
AG	Agricultural	AG/SP	--	--	--	--	--
C	Commercial, Office	C, CO, OP	C	C-4	C	C1, C3	--
I	Industrial	I	I	--	I	--	--
M	Manufacturing	--	IMCO	M1, M2	--	M1	--



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		City of Diamond Bar	City of Industry	City of Pomona	Rowland Heights	City of Walnut	City of West Covina
P	Parks	PK, PR	--	--	--	--	--
GC	Golf Course	GC	--	--	--	--	--
FWY	Freeway	--	--	--	--	--	--
CPP	Cal Poly Pomona	--	--	CPP	--	--	--
DBSP	Specific Plan Areas in the City of Diamond Bar	PA-1/SP, PA-2/SP, PA-3/SP, PA-4/SP	--	--	--	--	--

Existing Water Demand Calculations

A separate water demand factor was developed for each land use category identified in Table 3-6. These factors were calibrated using water demands by pressure zone and adjusted as necessary until the overall water demands agreed with the historical production totals. Prior to calibrating the water demands to historical production data, adjustments were made to demand calculations to account for large single-location water users and areas that are not fully developed. Table 3-7 lists the domestic water demand factors, adjustment factors, area and estimated water demands for each land use.



TABLE 3-7
Existing Domestic Water Demands by Land Use

Land Use Codes	General Land Use Categories	Domestic Water Demand Factor ⁽¹⁾ (gpd/ac)	Adjustment Factor ⁽²⁾	Area (ac)	Estimated Domestic Water Demands ⁽³⁾ (gpd)
RE	Residential Estate	900	0.92	3,122.3	2,576,601
LDR	Low Density Residential	1,200	0.99	6,003.6	7,131,970
MDR	Medium Density Residential	2,200	1.06	1,771.4	4,117,560
HDR	High Density Residential	3,000	1.02	310.4	948,070
DBSP	Diamond Bar Specific Plans ⁽⁴⁾	Exclude	Exclude	1,244.2	Exclude
PUB	Publicly Owned Land	1,400	0.49	939.4	638,897
CPP	Cal Poly Pomona ⁽⁵⁾	1,400	0.17	634.0	152,420
C	Commercial, Office	1,200	0.89	722.8	767,761
I	Industrial	1,700	0.56	2,324.1	2,211,986
M	Manufacturing	1,700	0.52	485.4	432,748
GC	Golf Course	600	1.00	348.8	209,257
AG	Agricultural	1,200	0.71	62.2	53,209
P	Parks	600	1.00	346.6	193,148
OS	Open Space ⁽⁶⁾	--	--	642.5	--
FWY	Freeway ⁽⁶⁾	--	--	607.5	--
Totals				19,565.2	19,433,626

⁽¹⁾ Domestic plus unaccounted-for water demand. Excludes makeup, exported and recycled water.

⁽²⁾ Adjustment Factor adjusts estimated water demands to account for Largest Single-Location Water Users and areas that are not fully developed.

⁽³⁾ Totals may not agree due to rounding of Adjustment Factor.

⁽⁴⁾ Excluded from existing water demand calculations because Diamond Bar Specific Plan areas are currently undeveloped.

⁽⁵⁾ Cal Poly Pomona currently served by the City of Pomona water distribution system. Demands represent large single-location water demands from the Los Angeles County Sanitation District landfill located on land owned by Cal Poly Pomona.

⁽⁶⁾ Excluded from existing water demand calculations since domestic water demands negligible from land use type.



PEAKING FACTORS

To determine the water demands for conditions other than an average day's water use, peaking factors were developed. Peaking factors account for fluctuations in demands on a daily or hourly basis. For example, water use is typically higher during hot summer days than on a cold winter day. Common peaking factors include factors for Maximum Day and Peak Hour demand periods. Peaking factors are determined using the water system demands for a selected period and dividing the quantity by the average day demands. The maximum day demand factor, for example, is determined by comparing the water demands for the day of the year with the highest daily water demand to the average day demands.

Variations in water demand also occur during a 24-hour period. In residential areas, there are often two peak use periods, in the morning and again in the late afternoon. Areas that have automatic sprinkler systems for irrigation may also see peak periods late at night through the early morning hours. System-wide peaking factors can be difficult to determine. An hourly water use curve, known as the system diurnal curve, is often developed for water systems to help identify how demands change through the day. This curve can be used to develop hourly factors used by the computer model. The following is a discussion of the development of each of the peaking factors developed for this study.

Maximum Day Peaking Factor

Historical water production records were used to establish the maximum day peaking factor. WWWD provided daily water production records that indicated the maximum production for each of the last 10 years. This daily production rate was compared to the average production rate for the same year to obtain a ratio that represents the maximum day peaking factor. Table 3-8 summarizes this information. Based on the relatively high maximum day factor for July 7, 1994, the maximum day peaking factor used in the this master plan was 1.80.



TABLE 3-8
Maximum Day Peaking Factors

Year	Maximum Day Date	Maximum Day Production (MGD)	Average Day Production (MGD)	Maximum Day Peaking Factor
1990-1991	Jul 13, 1990	32.33	19.47	1.66
1991-1992	Sept 3, 1991	24.98	17.25	1.45
1992-1993	Aug 10, 1992	31.33	19.15	1.64
1993-1994	Aug 2, 1993	31.27	18.82	1.66
1994-1995	Jul 7, 1994	33.04	18.41	1.80
1995-1996	Sept 5, 1995	32.81	19.69	1.67
1996-1997	Jul 2, 1996	32.98	20.42	1.62
1997-1998	Jul 23, 1997	31.30	18.03	1.74
1998-1999	Aug 30, 1998	31.30	20.01	1.56
1999-2000	Aug 26, 1999	32.68	22.32	1.46
Recommended Maximum Day Peaking Factor				1.80

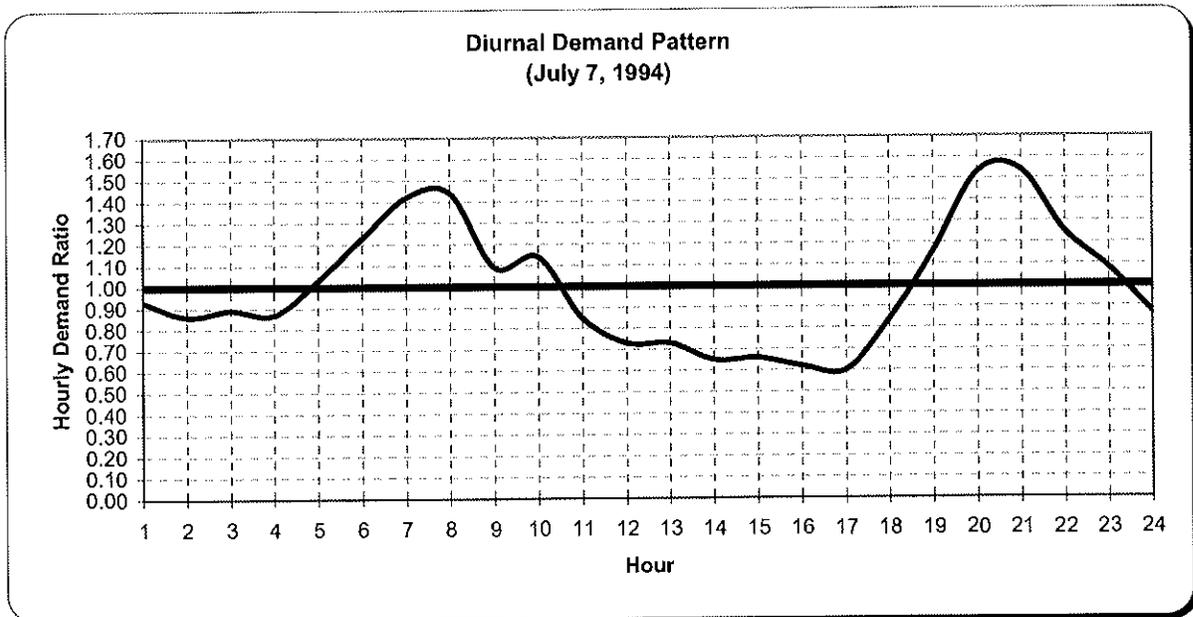
Peak Hour Peaking Factor

The peak hour demands are assumed to be the one hour during the maximum day with the highest demands. This is intended to represent the highest one hour demand period that the system should experience. The Peak Hour peaking factor developed for the WVWD water system was based on hourly production data and hourly reservoir levels provided from their SCADA system. The resulting hourly demand factors are shown in Table 3-9. The Diurnal Curve, shown in the graph on the following page, illustrates the demand pattern during the maximum day. Based on these hourly demands, the peak hourly demand was determined to be 1.54 times maximum day demands. This equates to a peaking factor of 2.77 times average day demands.



TABLE 3-9
Hourly Demand Pattern (July 7, 1994)

Time	Demand Ratio	Time	Demand Ratio
12 am - 1 am	0.93	12 pm - 1 pm	0.73
1 am - 2 am	0.86	1 pm - 2 pm	0.65
2 am - 3 am	0.89	2 pm - 3 pm	0.66
3 am - 4 am	0.87	3 pm - 4 pm	0.62
4 am - 5 am	1.03	4 pm - 5 pm	0.60
5 am - 6 am	1.23	5 pm - 6 pm	0.84
6 am - 7 am	1.42	6 pm - 7 pm	1.16
7 am - 8 am	1.44	7 pm - 8 pm	1.53
8 am - 9 am	1.09	8 pm - 9 pm	1.54
9 am - 10 am	1.14	9 pm - 10 pm	1.25
10 am - 11 am	0.85	10 pm - 11 pm	1.08
11 am - 12 pm	0.73	11 pm - 12 am	0.87



Peaking Factors and Existing System Demands

Table 3-3 lists the average water demands (including exported water and makeup water) for the WVWD's potable water system as 21,846 ac-ft/yr. Adjusting for unaccounted-for water increases the average demand to 23,138 ac-ft/yr. This is equivalent to average daily demands of 20.7 MGD, or 14,375 gpm. Using the maximum day peaking factor of 1.80, the maximum day demands for the existing system are 25,864 gpm (37.2 MGD). For the peak hour demands, a peaking factor of 2.77 times average day demands results in peak hour flows of 39,802 gpm (57.3 MGD). Table 3-10 summarizes the resulting peaking factors and existing system demands for average day, maximum day and peak hour.

**TABLE 3-10
Peaking Factors and Existing System Demands**

Simulation Period	Peaking Factor	System Demand⁽¹⁾ (gpm)
Average Day Demands	1.00	14,375
Maximum Day Demands	1.80	25,875
Peak Hour Demands	2.77	39,819

⁽¹⁾ Excludes recycled water demands, but includes makeup water, exported water and unaccounted-for water demands.

FIRE FLOW REQUIREMENTS

In addition to providing adequate water supply and pressure to serve residential, commercial, and industrial water demands placed on the system, the water system must also deliver an adequate supply for fire fighting. Since fires can occur at any time, the water system must be ready at all times to provide the required flow with an adequate residual pressure. The water system should be capable of providing the fire flow during the day of the year with the highest water demands, maximum day demands.

To determine the capacity of the system to provide adequate fire flows, it was necessary to establish minimum demand requirements to be applied to various locations throughout the distribution system, as well as a minimum residual and system pressure. In master planning, the fire flow demands are usually based on the type of land use in the area of the fire flow. For example, a residential area may require a minimum fire flow of 1,250 gpm while an industrial area may require 5,000 gpm.



The Los Angeles County Fire Department (LACFD) is the agency responsible for establishing fire flow requirements for the Walnut Valley Water District service area. LACFD was contacted to obtain their current fire flow regulations and criteria. The LACFD provided Regulation No. 8, which summarizes the fire flow and hydrant spacing requirements for water distribution systems in Los Angeles County. The fire flow requirements documented in Regulation 8 were used as a guide in developing fire flow criteria for this study, which is summarized in Table 3-11 below.

**TABLE 3-11
Fire Flow Requirements**

Land Use	Minimum Flow Required (gpm)	Minimum Residual Pressure (psi)	Duration (hrs)
Low Density Residential	1,250	20	2
Residential Estate	1,250	20	2
Medium Density Residential	1,250	20	2
High Density Residential	2,500	20	2
Public Facility	3,500	20	3
Commercial	3,500	20	3
Industrial	5,000	20	4
Hospital	5,000	20	4

FUTURE DEVELOPMENT

In designated areas of WVWD's service area and sphere-of-influence, the planning departments of the respective cities or county identified future development projects that may be served by the District, see Figure 3-4. The addition of these areas can be expected to increase the water demands on WVWD's water system. The amount of this increased demand was calculated using the proposed land uses obtained from the respective planning agencies and water demand factors that were developed from existing land uses similar to those proposed. These water demand factors include recycled water use and represent the total water demand for each type of land use. Table 3-12 lists the recycled water demands established for each land use type based on the Recycled Water System Master Plan (RWSMP) prepared by CGVL in 1999.



TABLE 3-12
Estimated Recycled Water Demands

Recycled Water Master Plan Data ⁽¹⁾			Recycled Water By Land Use				
User Classification	Annual Demands (AFY) (gpd)		Land Use Category ⁽²⁾	Land Use Code	Area (acres)	Percentage of Annual Demand	Annual Demand (gpd)
AG	12	10,712	Agricultural	AG	62.2	1.00	10,712
Maintenance District	265	236,566	Residential Estate Low Density Residential	RE LDR	3,122.2 6,003.6	0.34 0.66	80,432 156,133
School	264	235,673	Cal Poly Pomona Publicly Owned Land	CPP PUB	634 939.4	0.40 0.60	94,964 140,709
Caltrans	18	16,069	Freeway	FWY	607.5	1.00	16,069
Miscellaneous	330	294,591	Commercial	C	277.8	1.00	294,591
Golf	226	201,750	Golf Course	GC	348.8	1.00	201,750
Park	252	224,960	Park	P	346.6	1.00	224,960
Total		1,220,321					1,220,321

⁽¹⁾ Source: Recycled Water Master Plan, Figure 3-3 (CGvL, 1999).

⁽²⁾ Land use category assumed for master planning purposes.

The recycled water demands were added to the domestic water demands to determine the recycled water demand adjustment and total water demand factor. The total water demand factor developed for each land use, summarized in Table 3-13, were used to forecast future water demands in build-out and sphere-of-influence areas. The resulting total water demands calculated were utilized in the computer model for analysis of the system under future water demand loading. The future water demands were not reduced for recycled water use since such use is not uniformly distributed and the relative small reduction in flow rate in individual pipes is insignificant, yet conservative when selecting nominal pipe diameters. The future recycled water demands are taken into account for analysis of the adequacy of supply, pumping, storage and system reliability.



TABLE 3-13
Estimated Total Water Demand Factor

Land Use Code	General Land Use Category	Area ⁽¹⁾ (ac)	Domestic Water Demands ⁽¹⁾ (gpd)	Domestic Water Demand Factor ⁽¹⁾	Recycled Water Demands ⁽²⁾ (gpd)	Total Water Demands (gpd)	Recycled Water Adjustment Factor	Total Water Demand Factor ⁽³⁾ (gpd/ac)
RE	Residential Estate	3,122.3	2,576,601	900	80,432	2,657,033	1.03	928
LDR	Low Density Residential	6,003.6	7,131,970	1,200	156,133	7,288,103	1.02	1,226
MDR	Medium Density Residential	1,771.4	4,117,560	2,200	0	4,117,560	1.00	2,200
HDR	High Density Residential	310.4	948,070	3,000	0	948,070	1.00	3,000
DBSP	Diamond Bar Specific Plans ⁽⁴⁾	1,244.2	Exclude	Exclude	--	--	--	--
PUB	Publicly Owned Land	939.4	638,897	1,400	140,709	779,606	1.22	1,708
CPP	Cal Poly Pomona ⁽⁵⁾	634.0	152,420	1,400	94,964	247,384	1.62	2,272
C	Commercial, Office	722.8	767,761	1,200	294,591	1,062,352	1.38	1,660
I	Industrial	2,324.1	2,211,986	1,700	0	2,211,986	1.00	1,700
M	Manufacturing	485.4	432,748	1,700	0	432,748	1.00	1,700
GC	Golf Course	348.8	209,257	600	201,750	411,007	1.96	1,178
AG	Agricultural	62.2	53,209	1,200	10,712	63,921	1.20	1,442
P	Parks	346.6	193,148	600	224,960	418,108	2.16	1,299
OS	Open Space ⁽⁵⁾	642.5	--	--	--	--	--	--
FWY	Freeway ⁽⁶⁾	607.5	--	--	16,069	16,069	--	--
Total		19,565.2	19,433,626	N/A	1,220,321	20,653,947	N/A	N/A

⁽¹⁾ Source: Table 3-7.

⁽²⁾ Source: Table 3-12.

⁽³⁾ Includes domestic plus unaccounted-for water and recycled water.

⁽⁴⁾ Excluded from demand calculations since land use varies within each specific plan area.

⁽⁵⁾ Excluded from demand calculations since there is no water demand in Open Space areas.

⁽⁶⁾ Excluded from demand calculations since Freeway land use will not be forecasted in this analysis.



BUILD-OUT WATER DEMANDS

The estimated build-out water demands for the proposed developments within the District boundary are shown in Table 3-14. The additional water demands on the existing system to serve these future developments when fully developed are estimated at 3.84 MGD (4,301 ac-ft/yr).

TABLE 3-14
Estimated Build-Out Water Demands⁽¹⁾

Development Area No.	City/County	Land Use Type	Total Water Demand Factor ⁽²⁾ (gpd/ac)	Area (ac)	Estimated Total Water Demands for Average Day	
					(gpd)	(gpm)
D1	City of Diamond Bar	MIXED ⁽³⁾	Varies ⁽³⁾	720	499,104	346.60
D2	City of Diamond Bar	MIXED ⁽⁴⁾	Varies ⁽⁴⁾	400	24,945	17.32
D3	City of Diamond Bar	C	1,660	55	91,300	63.40
D4	City of Diamond Bar	PUB	1,708	82	140,056	97.26
D5	City of Diamond Bar	RE	928	60	55,680	38.67
D6	City of Diamond Bar	RE	928	70	64,960	45.11
I1	City of Industry	I	1,700	450	765,000	531.25
I2	City of Industry	I	1,700	600	1,020,000	708.33
P1	City of Pomona	C	1,660	74	122,840	85.31
P2	City of Pomona	PUB	1,708	200	341,600	237.22
P3	City of Pomona	PUB	1,708	270	461,606	320.56
R1	Rowland Heights	MIXED ⁽⁵⁾	Varies ⁽⁵⁾	182	32,480	22.56
R2	Rowland Heights	RE	928	64	59,392	41.24
R3	Rowland Heights	MDR	2,200	6	13,200	9.17
W1	City of Walnut	HDR	3,000	25	75,000	52.08
W2	City of Walnut	C	1,660	15	24,900	17.29
W3	City of Walnut	LDR	1,226	18	22,068	15.33
W4	City of Walnut	LDR	1,226	4	4,414	3.07
W5	City of Walnut	C	1,660	10	16,600	11.53
Estimated Build-Out Water Demands				3,305	3,835,145	2,663.30

⁽¹⁾ Includes potential domestic and recycled water demands.

⁽²⁾ Source: Table 3-13.

⁽³⁾ Proposed land use and estimated water demand calculations for Development Area "D1" are shown in Table 3-15.

⁽⁴⁾ Proposed land use and estimated water demand calculations for Development Area "D2" are shown in Table 3-16.

⁽⁵⁾ Proposed land use and estimated water demand calculations for Development Area "R1" are shown in Table 3-17.



Build-Out Area "D1"

Build-Out Area "D1" is located within the incorporated City of Diamond Bar south of the Pomona Freeway and west of Chino Hills Parkway. This approximately 720 acre site is part of the larger Tres Hermanos Ranch property spanning Grand Avenue. As described in the City of Diamond Bar General Plan (July 25, 1995), this area incorporates the Agriculture (AG) land use designation permitting single-family residential at a maximum density of 1.0 dwelling unit per 5 gross acres. The General Plan also states that additional facilities may include educational institutions, a reservoir for practical and aesthetic purposes, commercial developments which are not typical of the area and a variety of residential, churches, institutional and other uses. The assumptions summarized in Table 3-15 were made for master planning purposes to estimate the future water demands for this area. These assumptions do not imply endorsement or planning by WVWD for this or any other level of development in this area.

TABLE 3-15
Build-Out Development Area "D1" Estimated Water Demands⁽¹⁾

Land Use	Total Water Demand Factor ⁽²⁾ (gpd/ac)	Quantity (ac)	Estimated Water Demands (gpd)
20% Residential Estate	928	144.0	133,632
20% Public Facilities	1,708	144.0	245,952
10% Commercial	1,660	72.0	119,520
50% Open Space	0	360.0	0
Totals		720.0	499,104

⁽¹⁾ Land use information and area quantities assumed for master planning purposes.

⁽²⁾ Source: Table 3-13. Includes potential domestic and recycled water demands.



Build-Out Area "D2"

Build-Out Area "D2" consists of approximately 400 acres in the City of Diamond Bar located in two non-contiguous areas, including 75 acres to the east of Pantera Park and 325 acres located east of Diamond Bar Boulevard, north of Grand Avenue, and south of Gold Rush Drive, at the terminus of Highcrest Drive. As described in the Specific Plan for this area and summarized in Table 3-16, land uses for this 400± acre non-contiguous area include 127 single-family detached residential dwelling units concentrated along the extension of Highcrest Drive. Pulte Homes is the developer for this single family home development, referenced as Tract No. 52267. A minimum of 75 percent of the total 400 acre area is set aside as dedicated open space. A two acre site located at the southeast corner of Diamond Bar Boulevard and Gold Rush Drive may be developed for public facility or commercial uses. In order to minimize environmental impacts and maximize clustering, proposed residential lots range in size from 6,000 to 10,000 square feet. Based on the maximum density allowed by the Specific Plan, approximately 17.6 acres of Single Family Residential land use was assumed for the water demand projections. The remaining 380.4 acres of this proposed development were assumed to be dedicated open space.

**TABLE 3-16
Build-Out Area "D2" Estimated Water Demand⁽¹⁾**

Land Use	Total Water Demand Factor ⁽²⁾ (gpd/ac)	Quantity (ac)	Estimated Total Water Demand (gpd)
Low Density Residential	1,226	17.6	21,625
Commercial	1,660	2.0	3,320
Open Space	--	380.4	--
Totals		400.0	24,945

⁽¹⁾ Land use information and area quantities obtained from the City of Diamond Bar General Plan dated July 25, 1995.

⁽²⁾ Source: Table 3-13. Includes potential domestic and recycled water demands.



Build-Out Area "D3"

Build-Out Area "D3" in the City of Diamond Bar, located south of Grand Avenue and east of Golden Springs Drive, incorporates approximately 55 acres of undeveloped land. Appropriate land uses for this multiple ownership area defined by the Specific Plan include approximately 15 acres of General Commercial at the intersection of Grand Avenue at Golden Springs Drive and Professional Office uses for the remainder of the planning area.

Build-Out Area "D4"

Build-Out Area "D4" in the City of Diamond Bar consists of 82 acres of vacant land and is located west of Brea Canyon Road, north of Peaceful Hills Road and south of South Pointe Middle School. As defined by the Specific Plan for this area, land use designations appropriate for this development area include Park, Public Facilities and Open Space. The most sensitive portion of the site will be retained in permanent open space. The site plan will incorporate the planning and site preparation to accommodate the development of Larkstone Park of a suitable size and location to serve the neighborhood as approved by the City.

Build-Out Area "D5"

Located southeast of Wagon Train Lane and Windmill Drive in the City of Diamond Bar, Build-Out Area "D5" consists of 60 acres of undeveloped area. Proposed development for this site includes construction of 30 homes that are part of two tracts, Tracts 50314 and 48487. The land use for this proposed development is Residential Estate consisting of large custom homes. Plans were prepared and approved by WVWD for the construction of onsite water system improvements in late 1999. The District has completed installation of the water system for the development and JCC Homes, the developer for these tracts, is currently in the process of constructing homes as lots are sold.

Build-Out Area "D6"

Build-Out Area "D6" consists of approximately 70 acres in the City of Diamond Bar located between Bentley Way, Woodbridge Court, and Horizon Lane. Refer to Figure 3-4. This area is zoned for Residential Estate and may be served from the 1200 pressure zone along the extension of Rocky Trail Road. For system reliability, the development pipelines may be looped to existing 1200 pressure zone pipelines in Bentley Way and/or Horizon Lane depending on the tract layout.



Build-Out Area "I1"

Several large vacant areas in the City of Industry were identified to the south and east of Brea Canyon Road. Build-Out Area "I1" is comprised of a 450 acre industrial development in this area. Refer to Figure 3-4 for area boundary. Included with this development is the proposed Industrial area bounded by Valley Boulevard to the north, San Jose Creek to the south, Grand Avenue to the east, and the City of Walnut city boundary to the west.

Build-Out Area "I2"

Build-Out Area "I2" consists of 600 acres of vacant land in the City of Industry along both sides of Grand Avenue, to the north of the Orange (57) Freeway, as shown in Figure 3-4. This area is zoned for Industrial uses, but complete utilization of this land is limited by steep terrain and other undesirable development conditions.

Build-Out Area "P1"

A portion of the existing academic agricultural fields owned and operated by Cal Poly Pomona is currently being replaced with a new business park consisting of Commercial or Office land uses. The new construction is located in the southwest corner of this area and does not encompass the entire area shown in Figure 3-4. The remaining area will remain agricultural until it is ultimately replaced with other public facilities. The City of Pomona will provide water service to the new business park. However, the WVWD may ultimately provide water service to this development, along with other future developments in this area, using the new 12-inch water line proposed in Valley Boulevard. This line will extend from the Valley Boulevard/Temple Avenue intersection to the proposed production well across from Valley Boulevard/Amar Street intersection (just south of the 57 fwy). The production from this well is anticipated at 250-300 gpm (relatively small) and will be used for backup use only. However, the District will be able to serve Build-Out Area "P1" from the new pipeline in Valley Boulevard.

Build-Out Area "P1" is the only area north of Temple Avenue that the District is currently considering for water service in the near future. Other areas north of Temple Avenue that are served by the City of Pomona would be difficult to take over since the District would have to install several new pipelines and/or merge the WVWD and City of Pomona water systems to provide service. A "Special Study" will need to be conducted to determine the most cost effective and optimal recommendations for these areas.



Build-Out Area "P2"

Build-Out Area "P2" is bound by Temple Avenue to the north, Valley Boulevard to the west, and San Jose Creek to the east and south. The City of Pomona currently provides water service to this area, which is used by Cal Poly Pomona for agricultural uses. However, the WVWD recently constructed a new 36"x24" cross at the south end of this area to be used as the main feeds for this area in the future. The new 36"x24" cross connection was constructed off the 36" transmission main to the west of San Jose Creek and Sunset Crossing Road. This new connection, constructed in January of 2000 as part of Work Order 99-2559, is referenced as the Koll Plantation Corridor Line Reach "C". Since the area is zoned for Public Owned Land, the area appears to be underdeveloped and is expected to have an increase in water demands when existing farmland is replaced with other public facilities.

Another important note regarding Build-Out Area "P2" is the Union Pacific Rail Road (UPRR) lines that parallels Valley Boulevard will be abandoned. The abandoned line is referred to by UPRR as the Alhambra Line. The abandonment of this railway gives the District the advantage of servicing this area using existing facilities in Valley Boulevard. The District no longer has to cross an active railway to service this area, which can be difficult and time consuming from a permitting stand point. The new railroad, referred to as the Alameda Corridor (East), will cut diagonally across this area connecting the Alhambra Line to the LA Subdivision line, which are the tracks that parallel the San Jose Creek.

Build-Out Area "P3"

The Lanterman State Developmental Hospital is defined as Build-Out Area "P3" in this master plan. As shown in Figure 3-4, this area is located northwest of the Orange (57) Freeway, south of Temple Avenue, and southeast of the San Jose Creek. The City of Pomona currently provides water service to this hospital development using transmission lines in Pomona Boulevard. The existing City of Pomona meter is located at the intersection of State Street and Pomona Boulevard at the north entrance of the hospital. The City of Pomona water lines extend to the right-of-way in Pomona Boulevard since the Lanterman State Hospital Development has an on-site private water system. The hospital has recently looked for different ways (and sources) to service the current and future needs of this development, especially if they decide to expand. The District is considering extending a line from the Valley Boulevard/Pomona Boulevard intersection to the State Street/Pomona Boulevard intersection. The District could tie into the private hospital system as a secondary source supply to the Lanterman Development, or the District could ultimately replace the City of Pomona service all together.



Build-Out Area "R1"

Build-Out Area "R1" in Rowland Heights, located south of the Bill Blevins Park and Windrose Drive, consists of 56 custom or estate homes (2 units/acre) planned to replace a portion of the 182 acres of existing Open Space. A tentative tract map has recently been submitted (Tract 49411). The County of Los Angeles said they are not proponents of this tentative tract because it is proposing a 56 unit development with custom or estate lots in an area that is designated Open Space. The County said this area may never be developed because this area is dedicated Open Space. However, to be conservative in projecting future water demands for this area, Residential Estate land use was assumed for this master plan. Refer to Table 3-17.

The tentative tract map shows the entrance of this development at Hastings Street in the Rowland Heights area. The development is concentrated near Hastings Street with proposed street and pad elevations ranging from 790 to 940 feet. Even though the entrance of this development is outside the District boundary, the Environmental Impact Report (EIR) states the Walnut Valley Water District as the main water service provider for this area if the development is approved. Since the proposed elevations cannot be adequately served from the 930 pressure zone, this area was assumed to be served from the 1050 pressure zone in May Court.

TABLE 3-17
Build-Out Area "R1" Estimated Water Demand⁽¹⁾

Land Use	Total Water Demand Factor ⁽²⁾ (gpd/ac)	Quantity (ac)	Estimated Total Water Demand (gpd)
Residential Estate	928	35.0	32,480
Open Space	--	147.0	--
Totals		182.0	32,480

⁽¹⁾ Land use information and area quantities obtained from the County of Los Angeles Department of Regional Planning.

⁽²⁾ Source: Table 3-13. Includes potential domestic and recycled water demands.



Build-Out Area "R2"

Build-Out Area "R2" in Rowland Heights is comprised of 64 acres of vacant land located west of Canyon Cut-off Road and south of Balan Road. This area is zoned for custom or estate housing. K. Hovnanian constructed a 57 unit estate home project at this location.

Build-Out Area "R3"

There is approximately 6 acres of vacant land consisting of rolling hills located in the northwest portion of the Los Angeles Royal Vista Golf Course in Rowland Heights. This area, designated as Build-Out Area "R3" in this report, is zoned for low density residential. The developer, Pacific Community Builders located in Newport Beach, constructed 21 condominiums at this location.

Build-Out Area "W1" and "W2"

Build-Out Area "W1" in the City of Walnut is located west of Grand Avenue, north of Valley Boulevard, south and east of La Puente Road. High-density senior housing with commercial parcels along Grand Avenue and Valley Boulevard is planned for the currently undeveloped site. The Planning Department at the City of Walnut indicated that this area is in the early stages of development with recent land dealings and preliminary plans processed.

Build-Out Area "W2" in the City of Walnut is located east of Grand Avenue, north of Valley Boulevard, south of La Puente Road and Rodeo Way, and west of the Walnut sheriff station. This area is currently undeveloped and zoned commercial. Planned development currently includes an assisted living facility and commercial sites. Areas "W1" and "W2" are both part of the proposed Snow Creek Village project.

Build-Out Area "W3"

Build-Out Area "W3" consists of approximately 18 acres in the City of Walnut to the north of Round Table Court as shown in Figure 3-4. This area is zoned for Low Density Residential and may be served from the extension of the 930 pressure zone in Meadow Pass Road. There have been no recent land dealings or processing for this area.



Build-Out Area "W4"

Build-Out Area "W4" in the City of Walnut is located north of Pierre Road along the west side of Kelso Road, at the terminus of Meadow Pass Road. The tentative tract map, referenced as Tract No. 49059 (Lot 3, PM 5182), proposes to subdivide the existing 3.6 acre parcel into 7 Low Density Residential custom lots. This area may be served from the existing 930 pressure zone along the extension of Meadow Pass Road.

Build-Out Area "W5"

Build-Out Area "W5" consists of approximately 10 acres of undeveloped land in the City of Walnut located north of Valley Boulevard, south of Divonne Drive, east of Pierre Road, and west of Suzanne Road. This area is zoned for Commercial uses and may be served from the extension of the existing 770 pressure zone.

RECYCLED WATER SYSTEM EXPANSION

WVWD's Recycled Water System Master Plan (RWSMP), prepared by CGvL in 1999, explored the possibility of expanding the existing recycled water system and identified potential users for this system expansion. The majority of the potential new recycled water users were located in Diamond Bar, Walnut Hills and Tres Hermanos. Some of the potential new recycled water users are currently using potable water for irrigation due to the limited supply of recycled water while others are existing undeveloped areas.

As noted earlier, the use of recycled water has the effect of reducing the potable water demands by the same amount. Therefore, expansion of the existing recycled water system in the future will help offset future increases in the potable water system demands. The existing and potential recycled water demands shown in Table 3-18 were obtained from the RWSMP. According to the RWSMP, the expansion of the recycled water system to 4,550 ac-ft/yr should be completed by the year 2010.



TABLE 3-18
Recycled Water Demand Potential⁽¹⁾

Area	Demand (ac-ft/yr)		
	Existing	Potential	Sum
Walnut	1,018	582	1,600
Industry	44	219	263
Diamond Bar	396	1,776	2,172
Rowland Heights	84	7	91
Rowland Water District	424	0	424
Total (ac-ft/yr)	1,966	2,584	4,550
Average (MGD)	1.755	2.307	4.063

⁽¹⁾ Source: Recycled Water System Master Plan (CGvL, 1999)

FUTURE WATER SYSTEM DEMAND

The water system demands are not expected to change significantly in developed areas located within the WVWD's service area that are currently built-out except for typical annual variations. The majority of the increased water demands are expected to come from proposed development projects within the WVWD service area. These proposed development projects were identified in Figure 3-4 and the water demands were calculated in Table 3-14.

Currently, the proposed development projects are in various stages of planning, and there were no firm schedules available for development phasing or completion. Estimating schedules for development projects is difficult, if not impossible. Driving factors can include economic, political, environmental, and construction issues. Nevertheless, to adequately plan for the additional water supplies that will result from the new development, it was necessary to make estimates of the increased water demands for the planning years used in this master plan. Estimates of the amount of overall development completed at the various planning milestones were made, and the resulting water demands were calculated based on the overall percent complete for each planning year and at build-out. Sphere-of-influence water demands, discussed in the following section, were also estimated and included in future water system analysis. Table 3-19 summarizes the future water demands used in this master plan.



TABLE 3-19
Estimated Future Water System Demand

Planning Period	Proposed Development Completed ⁽¹⁾ (%)	Proposed Development Demand ⁽²⁾ (MGD)	Estimated Total Demand ⁽²⁾ (MGD)	Recycled Water Supply ⁽³⁾ (MGD)	Estimated Total Potable Water Demand	
					(MGD)	(ac-ft/yr)
2000	0%	0.000	22.414	1.755	20.659	23,138 ⁽⁴⁾
2010	50%	1.918	24.332	4.063	20.269	22,701
2020	75%	2.876	25.290	4.063	21.227	23,774
Build-Out	100%	3.835 ⁽⁵⁾	26.249	4.063	22.186	24,848
S.O.I.	100%	4.234 ⁽⁶⁾	30.483	4.063	26.420	29,590

- ⁽¹⁾ Percent Developed represents an estimate of the overall completion for all of the proposed development projects identified in this master plan.
- ⁽²⁾ Includes domestic and recycled water demands. Unaccounted-for water is also included
- ⁽³⁾ Source: Table 3-18.
- ⁽⁴⁾ Source: Table 3-4.
- ⁽⁵⁾ Source: Table 3-14.
- ⁽⁶⁾ Source: Table 3-20.

SPHERE-OF-INFLUENCE WATER DEMANDS

In addition to the build-out water demands within the District's service area, future demand was also considered within WVWD's sphere-of-influence, see Figure 3-4. Table 3-20 summarizes the potential water demands that may result from the addition of the sphere-of-influence areas to the WVWD water system.



TABLE 3-20
Estimated Sphere-Of-Influence Water Demands⁽¹⁾

Development Area No.	City/Community	Land Use Type	Total Water Demand Factor ⁽¹⁾ (gpd/ac)	Area (ac)	Estimated Total Water Demands for Average Day	
					(gpd)	(gpm)
W6	City of Walnut	MIXED ⁽²⁾	Varies ⁽²⁾	551	126,846	88.09
S1	Suburban Water Systems	MIXED ⁽³⁾	Varies ⁽³⁾	1,120	1,292,400	897.50
MSAC1	Mount San Antonio College	PUB	1708	400	683,200	474.44
CPP1	Cal Poly Pomona	PUB	1708	180	307,440	213.50
LACo1	LA County (Shell Area)	MIXED ⁽⁴⁾	Varies ⁽⁴⁾	275	36,780	25.54
LACo2	LA County (Boy Scouts Area)	MIXED ⁽⁵⁾	Varies ⁽⁵⁾	3,225	1,787,090	1,241.11
Estimated Sphere-Of-Influence Water Demands				5,751	4,233,756	2,940.11

- ⁽¹⁾ Includes potential domestic and recycled water demands as shown in Table 3-13.
- ⁽²⁾ Proposed land use and estimated water demand calculations for Development Area "W6" are shown in Table 3-21.
- ⁽³⁾ Proposed land use and estimated water demand calculations for Development Area "S1" are shown in Table 3-22.
- ⁽⁴⁾ Proposed land use and estimated water demand calculations for Development Area "LACo1" are shown in Table 3-23.
- ⁽⁵⁾ Proposed land use and estimated water demand calculations for Development Area "LACo2" are shown in Table 3-24.

Sphere-of-Influence Area "W6"

The proposed Walnut Hills Development project, designated as Sphere-of-Influence Area "W6" in this report, is a master planned development located on an approximately 551-acre undeveloped site north of Amar Road within the City of Walnut. The proposed project includes 268 single-family detached residential units, a 18 hole public golf course, a driving range, and clubhouse. The EIR for this area is currently being circulated and the tentative tract map is in the final stages of the permitting process. Table 3-21 summarizes the estimated water demands for each land use type within this proposed development. The summation of these demands provides the future estimated water requirements for the Walnut Hills Development.



TABLE 3-21
Sphere-Of-Influence Area "W6" Estimated Water Demand⁽¹⁾

Land Use	Total Water Demand Factor ⁽²⁾ (gpd/ac)	Quantity (ac)	Estimated Total Water Demand (gpd)
Low Density Residential	1,226	75.6	92,686
Club House (PUB)	1,708	20.0	34,160
Golf Course	--	185.1	--
Infrastructure	--	36.2	--
Open Space	--	234.5	--
Totals		551.4	126,846

⁽¹⁾ Land use information and area quantities obtained from the Draft EIR (March 2000) for the Walnut Hills Development Project.

⁽²⁾ Source: Table 3-13. Includes potential domestic and recycled water demands.

Sphere-of-Influence Area "S1"

Sphere-of-Influence Area "S1" is a developed area currently served by Suburban Water Systems (City of West Covina). It consists of approximately 1120 acres of predominately single family residential development. The area includes a small commercial area and two small local parks. There have been reported problems with the existing water system including leaks, pressure problems, and the overall capability to adequately serve this area. The estimate water demand for master planning purposes, is summarized in Table 3-22.

TABLE 3-22
Sphere-Of-Influence Area "S1" Estimated Water Demand⁽¹⁾

Land Use	Total Water Demand Factor ⁽²⁾ (gpd/ac)	Quantity (ac)	Estimated Total Water Demand (gpd)
Low Density Residential	1,226	1,000.0	1,226,000
Commercial	1,660	40.0	66,400
Park	--	80.0	--
Totals		1,120.0	1,292,400

⁽¹⁾ Land use information and area quantities obtained from the City of West Covina existing system review.

⁽²⁾ Source: Table 3-13. Includes potential domestic and recycled water demands.



Sphere-of-Influence Area "MSAC1"

This area, within WVWD's sphere-of-influence, is the existing Mount San Antonio College. They currently provide their own water service from an MWD connection and a local well. The area is approximately 400 acres. To estimate average water demand for master planning purposes, the water demand rate per acre was assumed to be roughly equivalent to Cal Poly Pomona (1,708 gpd/ac), equaling 683,200 gpd.

Sphere-of-Influence Area "CCP1"

This area, also within the WVWD's sphere-of-influence, is a portion of the Cal Poly Pomona campus dedicated to agricultural studies. The area is approximately 180 acres. To estimate water demand for master planning purposes the water demand factor was assumed to be equal to the other parts of the campus, which is 1,708 gpd/ac. This results in a demand of 307,440 gpd, which exceeds the expected agricultural use rate.

Sphere-of-Influence Area "LACo1"

This area, known as the "Shell Property", is located south of the WVWD existing boundary between the Orange (57) Freeway and the "Boy Scouts" Area (LACo2). Refer to Figure 3-4 for the development area boundary. It consists of approximately 275 acres of undeveloped land in Los Angeles County and lies within the WVWD's sphere-of-influence. The developer for this site plans on building approximately 85-90 low density residential units (3 dwelling units/acre) with a buffer zone of Open Space between the development and freeway. The estimated water demand for this area is summarized in Table 3-23.

TABLE 3-23
Sphere-Of-Influence Area "LACo1" Estimated Water Demand⁽¹⁾

Land Use	Total Water Demand Factor ⁽²⁾ (gpd/ac)	Quantity (ac)	Estimated Total Water Demand (gpd)
Low Density Residential	1,226	30.0	36,780
Open Space	--	245.0	--
Totals		275.0	36,780

⁽¹⁾ Land use information and area quantities assumed for master planning purposes.
⁽²⁾ Source: Table 3-13. Includes potential domestic and recycled water demands.



Sphere-of-Influence Area "LACo2"

Sphere-of-Influence Area "LACo2" is referred to as the "Boy Scouts" area. It consists of about 3,225 acres of undeveloped land in Los Angeles County. At this time, it is not possible to determine how this area may be developed. In order to consider the potential impact on the WVWD infrastructure caused by the relatively high level of development in this area, the following assumptions were made for master planning purposes and summarized in Table 3-24. These assumptions do not imply endorsement or planning by WVWD for this or any other level of development in this area.

**TABLE 3-24
Sphere-Of-Influence Area "LACo2" Estimated Water Demand⁽¹⁾**

Land Use	Total Water Demand Factor ⁽²⁾ (gpd/ac)	Quantity (ac)	Estimated Total Water Demand (gpd)
10% Residential Estate	928	325.0	301,600
15% Low Density Residential	1,226	485.0	594,610
5% Medium Density Residential	2,200	160.0	352,000
5% Commercial	1,660	160.0	265,600
5% Public Facilities	1,708	160.0	273,280
60% Open Space	—	1,935.0	—
Totals		3,225.0	1,787,090

⁽¹⁾ Land use information and area quantities assumed for master planning purposes.

⁽²⁾ Source: Table 3-13. Includes potential domestic and recycled water demands.



CITY OF INDUSTRY GENERAL PLAN UPDATE DRAFT EIR
Fire Questionnaire

1. Please verify this statement and make any corrections:

"The City is served by ~~Battalion 12~~ of the Los Angeles County Fire Department; ~~two~~ three fire stations are within the City, Fire Station No. 43 on Stimson Avenue, Fire Station 87 on Second Avenue, and Fire Station No. 118 on Gale Avenue."

Please provide current information regarding the existing fire stations that serve the City of Industry.

There are fourteen Los Angeles County Fire Stations that have jurisdiction in the City of Industry:

	<u>EQUIPMENT</u>	<u>STAFFING</u>
FS 26	4-Person Engine 2-Person Paramedic Squad	6
FS 40	3-Person Engine 2-Person Paramedic Squad	5
FS 43	4-Person Engine 5-Person HazMat Squad	9
FS 61	3-Person Engine 2-Person Paramedic Squad	5
FS 87	4-Person Engine	4
FS 90	3-Person Engine 2-Person Paramedic Squad	5
FS 118	4-Person Truck 3-Person Engine 2-Person Paramedic Squad	9
FS 119	3-Person Engine 2-Person Paramedic Squad	5
FS 120	4-Person Assessment Engine	4
FS 121	3-Person Engine	3
FS 145	3-Person Engine 2-Emergency Support Team	5
FS 146	3-Person Engine	3
FS 168	3-Person Engine	3
FS 187	4-Person Quint	4

CITY OF INDUSTRY GENERAL PLAN UPDATE DRAFT EIR
Fire Questionnaire

- a. What type and how much equipment is housed at each station that serves Industry (i.e. engines, fire trucks, EMT vehicles)?

See Question #2

- b. How many personnel are housed at each station?

See Question #2

2. What is the Los Angeles County Fire Department (LACFD)'s performance standard for responding to emergency calls within the service area (i.e., minutes to reach the call location)?

The Fire Department uses national guidelines of a 5-minute response time the 1st-arriving unit for fire and EMS responses and 8 minutes for the advanced life support (paramedic) unit in urban areas.

3. What is the current average response time (in minutes) for emergency calls?

During 2010, the average emergency response time in the City of Industry was 5:12 minutes.

4. How many calls are received annually at the LACFD stations that serve Industry? If data is available for last 10 years (2000 – 2010), please provide.

For the stations located in the City, we have information available beginning with the year 2001.

YEAR	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
FS 43	1274	1236	1194	1207	1358	1430	1456	1443	1429	1362
FS 87	1900	1996	1915	1848	1863	1729	1853	1827	1705	1812
FS 118	2363	2362	2356	2353	2535	2200	2239	2317	2220	2183

5. Are the resources (personnel, equipment) adequate to serve Industry under current conditions? Or, is there a deficiency? Please explain.

Fire protection serving the area appears to be adequate for the existing development/land use; however, each additional development creates greater demands on existing resources.

CITY OF INDUSTRY GENERAL PLAN UPDATE DRAFT EIR
Fire Questionnaire

6. Previous environmental review indicates that a fire station has been proposed at the intersection of Grand Avenue and Garcia Avenue in Industry.¹ This station would be built by the City and may be leased to LACFD.

- a. Can any additional information be provided regarding this proposed fire station? Have any preliminary plans been made regarding the size of the station or what staff and equipment it would have?

While the City has offered to build the fire station, there is no binding agreement with the City regarding leasing the station to the Fire Department nor has there been any concrete plans, specifications or size for the station.

- b. Although LACFD is not able to collect developers fees in the City of Industry, will LACFD be able to use County General Tax or Special Tax to finance the operation and maintenance of the proposed station? If not, what funding source is available for LACFD to operate the station?

It is estimated that the property tax revenue generated in the proposed jurisdictional area of the new station would not be sufficient to support the on-going operating cost of the proposed station. Therefore, the Fire Department has asked the City to share this cost until the property tax revenue in the area equals the operating cost. However, at this time funding for operating cost remains uncertain.

7. Have any other plans been made to expand fire service in the area that serves Industry?

No, not at this time.

8. How would the proposed General Plan Update affect the existing fire service in the City of Industry? Are there areas of specific concern or new development that would require additional fire service and potentially new stations?

The General Plan at buildout proposes up to 12.5 million additional square feet of non-residential development and 91.6 square feet of employment space. The impact that this will have depends in part on the proposed uses, location, and density of future development. Consequently, the effects of this project on the adequacy of the Fire Department's level of service remain uncertain.

9. Please add any comments you may wish to make regarding this project.

We have no additional comments.

¹ City of Industry. 2009, February. Supplement to the Industry Business Center Final EIR.

CITY OF INDUSTRY GENERAL PLAN UPDATE DRAFT EIR
Fire Questionnaire

Response Prepared By:

Loretta Bagwell



Planning Analyst

Name

Title

Los Angeles County Fire Department

December 16, 2011

Agency

Date

CITY OF INDUSTRY GENERAL PLAN UPDATE DRAFT EIR
Police Questionnaire

1. Please verify that the City of Industry is mainly served by the Industry Station of the Los Angeles County Police Department (LACPD), located on Hudson Avenue in the City of Industry.

The City of Industry is served by the Los Angeles County Sheriff's Department.

- a. What are the average response times to emergency calls from this station?

3 to 4 minutes.

- b. What is the performance standard for response times? Is the LACPD meeting this performance standard at this station?

The performance standard is 10 minutes. Yes. The Sheriff's Department is meeting that standard.

2. Are there additional stations that regularly serve the City of Industry? Please list.

No.

- a. What are the average response times to emergency calls from these stations, if applicable?

N/A

- b. Is the LACPD meeting this performance standard at these stations, if applicable?

N/A

3. How many calls are received annually at the LACPD stations that serve Industry? If data is available for last 10 years (2000 – 2010), please provide.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Regular	51634	54031	55924	56223	55305	55204	54739	52136	48662	48955	49925
911	16614	16588	15876	14592	12812	11317	10955	10108	8659	6076	5426
Total	768248	70619	71800	70815	68117	66521	65694	62244	57321	55031	55351

CITY OF INDUSTRY GENERAL PLAN UPDATE DRAFT EIR
Police Questionnaire

4. Does LACPD have any plans to expand existing police service in the City of Industry? If so, how? Please provide as many details as possible.

The City of Industry recently increased their contract by adding 4 deputies and 1 sergeant to their policing team.

5. What are the funding sources for LACPD to maintain and operate their stations?

The Sherriff's Department is funded by the County of Los Angeles and by the cities that contract with them.

6. How would the proposed General Plan Update affect the existing police service in the City of Industry? Are there areas of specific concern or new development that would require additional police service and potentially new stations?

Industry Station will be able to manage the new development without affecting its current policing strategy.

7. Please add any comments you may wish to make regarding this project.

N/A

Response Prepared By:

James P. Wolak
Name

Operations Lieutenant
Title

Los Angeles County Sheriff's Department
Agency

December 12, 2011
Date



COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

1955 Workman Mill Road, Whittier, CA 90601-1400
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
Telephone: (562) 699-7411, FAX: (562) 699-5422
www.lacsd.org

STEPHEN R. MAGUIN
Chief Engineer and General Manager

May 30, 2011

RECEIVED JUN 02 2011

Ms. Leah Boyer
The Planning Center
1580 Metro Drive
Costa Mesa, CA 92626

Dear Ms. Boyer:

**Response to Information request for the City of Industry
General Plan Update Draft EIR (1ND-09.1 L) Project**

The County Sanitation Districts of Los Angeles County (Districts) received the above-referenced request for information on May 9, 2011. Regarding solid waste management for the above-mentioned project in the City of Industry, the Districts offer the following comments in response to your specific questions:

Question 1(a):

Yes, City of Industry is within Sanitation Districts No. 15, 18, and 21.

Question 1(b):

The Districts do not control the collection or disposal of refuse originating from the City of Industry. Please consult with the City of Industry/lead agency and the California Department of Resources Recycling and Recovery (CalRecycle) concerning this issue.

Question 2:

The Districts do not maintain or project disposal for the City of Industry. Los Angeles County Department of Public Works' Environmental Programs Division (LACDPW-EPD) maintains records of disposal for the local jurisdictions within Los Angeles County. LACDPW-EPD also makes projections for future disposal needs. Please also consult with the lead agency and CalRecycle concerning this issue.

Question 3:

CalRecycle's website at www.calrecycle.ca.gov contains information regarding solid waste disposal facilities and solid waste generation rates. Also, further input should be solicited from the lead agency.

Question 4:

LACDPW-EPD makes projections of long term disposal capacity and disposal needs. Recognizing that in-county disposal capacity is finite, in the long term there will be a need for out-of-county disposal capacity. To that end, the Sanitation Districts have developed long-term capacity in a waste-by-rail system. The Districts are currently in the process of constructing the rail facilities necessary to begin Waste-by-Rail operation by 2011/2012. The City of Industry Planning Commission approved the CUP for the Puente Hills Intermodal Facility (PHIMF) in June 2008. The PHIMF will be used for loading and unloading rail-ready shipping containers for the Waste-by-Rail system. The containers will then be transported to the Mesquite Regional Landfill in Imperial County for disposal.

Question 5:

At this time, the Districts are not planning to expand any of our existing facilities.

Question 6:

The Districts collect fees from our solid waste customers for the use of our solid waste facilities. These fees are used to maintain, operate and, when needed, expand the facilities. Also, the Districts use revenue from the sale of electric power from our gas-to-energy facilities to fund solid waste facilities operations.

Question 7:

Please consult with your lead agency concerning this issue.

If you have additional questions concerning this response, please contact me at (562) 908-4288, extension 2764.

Very truly yours,

Stephen R. Maguin



Ziad A. El Jack
Senior Engineer
Planning Section

ZE:mh



RECEIVED JUN 10 2011

COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

1955 Workman Mill Road, Whittier, CA 90601-1400
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
Telephone: (562) 699-7411, FAX: (562) 699-5422
www.lacsd.org

STEPHEN R. MAGUIN
Chief Engineer and General Manager

June 8, 2011

File No: 15-00.00-00
18-00.00-00
21-00.00-00

Ms. Leah Boyer, Planner
The Planning Center
1580 Metro Drive
Costa Mesa, CA 92626

Dear Ms. Boyer:

City of Industry General Plan Update

This is in response to your request for information for the subject project, which was received by the County Sanitation Districts of Los Angeles County (Districts) on May 9, 2011. The City of Industry is located within the jurisdictional boundaries of Districts Nos. 15, 18, and 21. We offer the following comments along with the enclosed completed questionnaire:

1. The Districts own, operate, and maintain only the large trunk sewers that form the backbone of the regional wastewater conveyance system. Local collector and/or lateral sewer lines are the responsibility of the jurisdiction in which they are located. As such, the Districts cannot comment on any deficiencies in the sewerage system in the City of except to state that presently no deficiencies exist in Districts' facilities that serve the City. For information on deficiencies in the City sewerage system you should contact the City Department of Public Works and/or the Los Angeles County Department of Public Works.
2. For a copy of the Districts' average wastewater generation factors, go to www.lacsd.org, Information Center, Will Serve Program, Obtain Will Serve Letter, and click on the appropriate link on page 2.
3. The Districts are authorized by the California Health and Safety Code to charge a fee for the privilege of connecting (directly or indirectly) to the Districts' Sewerage System or increasing the strength or quantity of wastewater attributable to a particular parcel or operation already connected. This connection fee is a capital facilities fee that is imposed in an amount sufficient to construct an incremental expansion of the Sewerage System to accommodate the proposed project. Payment of a connection fee will be required before a permit to connect to the sewer is issued. For a copy of the Connection Fee Information Sheet, go to www.lacsd.org, Information Center, Will Serve Program, Obtain Will Serve Letter, and click on the appropriate link on page 2. For more specific information regarding the connection fee application procedure and fees, please contact the Connection Fee Counter at extension 2727.

4. In order for the Districts to conform to the requirements of the Federal Clean Air Act (CAA), the design capacities of the Districts' wastewater treatment facilities are based on the regional growth forecast adopted by the Southern California Association of Governments (SCAG). Specific policies included in the development of the SCAG regional growth forecast are incorporated into clean air plans, which are prepared by the South Coast and Antelope Valley Air Quality Management Districts in order to improve air quality in the South Coast and Mojave Desert Air Basins as mandated by the CAA. All expansions of Districts' facilities must be sized and service phased in a manner that will be consistent with the SCAG regional growth forecast for the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The available capacity of the Districts' treatment facilities will, therefore, be limited to levels associated with the approved growth identified by SCAG. As such, this letter does not constitute a guarantee of wastewater service, but is to advise you that the Districts intend to provide this service up to the levels that are legally permitted and to inform you of the currently existing capacity and any proposed expansion of the Districts' facilities.

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2717.

Very truly yours,

Stephen R. Maguin



Adriana Raza
Customer Service Specialist
Facilities Planning Department

AR:ar

Enclosure

c: B. Langpap

CITY OF INDUSTRY GENERAL PLAN UPDATE DRAFT EIR
Solid Waste Questionnaire

1. Please verify the following information about existing solid waste service in the City of Industry. Make corrections if information is inaccurate.

a. Industry is within the Los Angeles County Sanitation Districts 15, 18, and 21.

A separate response letter was prepared on May 30, 2011 for this section of the questionnaire by Ziad El Jack, Senior Engineer.

b. Based on the jurisdiction profile for Industry on the CalRecycle database, the City of Industry sends refuse to the following landfills. Add/delete landfills as necessary.

- Antelope Valley Public Landfill I
- Antelope Valley Public Landfill II
- Azusa Land Reclamation Co. Landfill
- Bakersfield Metropolitan (Bena) SLF
- Chiquita Canyon Sanitary Landfill
- Colton Sanitary Landfill
- El Sobrante Landfill
- Frank R. Bowerman Sanitary LF
- Kettleman Hills - B18 Nonhaz Codisposal
- Lancaster Landfill and Recycling Center
- Mid-Valley Sanitary Landfill
- Olinda Alpha Sanitary Landfill
- Puente Hills Landfill
- Simi Valley Landfill & Recycling Center
- Sunshine Canyon City Landfill Unit 2
- Sunshine Canyon SLF County Extension
- Victorville Sanitary Landfill

2. Does LACSD have estimates for the total tonnage of solid waste generated in the City of Industry (pre- and/or post-recycling)? If so, please provide this data for years 2000 through 2010.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Pre-recycling/refuse-to-energy											
Post-recycling/refuse-to-energy											

3. Does LACSD have daily or annual solid waste generation rates for specific land uses that can be used to estimate future solid waste generation (i.e. pounds per square foot or pounds per employee/resident)? If so, please provide these rates for residential, employment, commercial, recreation/open space, and institutional land uses.

CITY OF INDUSTRY GENERAL PLAN UPDATE DRAFT EIR
Solid Waste Questionnaire

Response Prepared By:

Adriana Raza	Customer Service Specialist
Name	Title
Los Angeles County Sanitation Districts	June 8, 2011
Agency	Date

CITY OF INDUSTRY GENERAL PLAN UPDATE DRAFT EIR
Wastewater Questionnaire

1. Based on previous research and LACSD's website, cities area responsible for collecting wastewater within the districts through local lines, which feed into trunk lines, and then the Joint Outfall System. Which portions of this infrastructure system are LACSD's responsibility?

As detailed in the enclosed response letter, LACSD owns, operates, and maintains only the large trunk sewers that form the backbone of the regional wastewater conveyance system. Local collector and/or lateral sewer lines are the responsibility of the jurisdiction in which they are located.

2. Please provide information about the treatment plants that serve the City of Industry.

Plant Name	Average Daily In-Flow	Max. Daily In-Flow	Treatment Capacity
Joint Water Pollution Control Plant (JWPCP)	288.5 mgd*	309.2 mgd	400 mgd
San Jose Creek WRP	72.3 mgd	95.7 mgd	100 mgd

*mgd - million gallons per day

3. Would the LACSD's Loadings for Each Class of Land Use (available at <http://www.lacsd.org/civica/filebank/blobload.asp?BlobID=3531>) be appropriate to determine the total wastewater generated at buildout of the proposed Industry General Plan Update? If not, please provide wastewater generation rates that would be applicable to the proposed land uses in the City of Industry.

LACSD's average wastewater generation loading factors available on line at www.lacsd.org would be appropriate to estimate the total volume of wastewater generated at build out of the proposed Industry General Plan Update.

4. Are there any deficiencies of existing wastewater facilities that would be worsened by the proposed General Plan Update?

There are no significant deficiencies in the sewerage system serving the City of Industry. Any changes in the General Plan that increase the amount or strength of the wastewater have the potential to negatively impact sewerage facilities. Without knowing more about the proposed General Plan changes, it is not possible to provide a more detailed response. The Planning Center (consultant) needs to make an assessment regarding the impact of the proposed General Plan Update on the existing wastewater facilities. LACSD is willing to review the consultant's approach and provide comments on the analysis.

5. Does LACSD have any plans to expand existing wastewater facilities? If so, how? Please provide as many details as possible.

Planned expansion of the wastewater facilities was discussed in Final Joint Outfall System 2010 Master Facilities Plan (2010 Facilities Plan), which can be found at http://www.lacsd.org/info/publications_n_reports/wastewater_reports/jointoutfall2010/default.asp. The 2010 Facilities Plan was published in 1995 and resulted in upgrades to the Joint Water Pollution Control Plant (JWPCP) that were completed in 2005. 2010 Facilities Plan also included capacity expansion at San Jose Creek Water Reclamation Plant (SJCWRP) from 100 to 125 mgd that was planned to be completed by 2006. However, projected flows did not materialized resulting in no need for the additional capacity. Currently, LACSD is developing the Clearwater Program, a new facilities plan for the Joint Outfall System, that will discuss infrastructure and wastewater management needs for the Joint Outfall System through the year 2050. The Draft Plan and Draft EIR are tentatively expected to be available for public review in Fall 2011. The Draft Plan is expected to identify an expansion of the SJCWRP from 100 to 125 mgd at approximately 2040 to meet projected needs of the service area through 2050.

CITY OF INDUSTRY GENERAL PLAN UPDATE DRAFT EIR
Wastewater Questionnaire

6. What are the funding sources for LACSD to expand, maintain, and operate their facilities?

LACSD collects annual user charges to pay for the operation, maintenance, and upgrade of the Districts' wastewater management system. These charges are collected via the Service Charge Program for residential and commercial customers and via the Industrial Wastewater Surcharge Program for industrial waste dischargers. For some parcels, LACSD also collects Ad Valorem property taxes that help fund the Service Charge Program.

Projects that provide additional capacity (expansion) are funded through the Connection Fee program. Prior to connecting to the sewer network, all new users are required to pay a "connection fee".

7. How would the proposed General Plan Update affect the existing solid waste service in the City of Industry? Are there areas of specific concern or areas of new development that would require additional solid waste facilities?

We assume that this question is regarding wastewater services not solid waste since solid waste was addressed in the preceding questionnaire. As mentioned in response to question 4, any changes in the General Plan that increase the amount or strength of the wastewater have the potential to negatively impact sewerage facilities. Without knowing more about the proposed General Plan changes, it is not possible to provide a more detailed response.

8. Please add any comments you may wish to make regarding this project.

Please refer to the enclosed response letter for additional comments.

Response Prepared By:

Adriana Raza	Customer Service Specialist
Name	Title
Los Angeles County Sanitation Districts	June 8, 2011
Agency	Date