SECTION 4

WATER USE

4-1 Historic Water Production and Purchase

The City obtains its potable water supply from groundwater wells in Chino Basin and imported water from the Water Facilities Authority (WFA) and the Chino Basin Desalter Authority (CDA). The City currently owns 32 wells. Four wells are either abandoned or destroyed, five (5) of the wells are inactive, while the other 23 wells are operational.

The total annual water production and purchase from January 2001 to December 2009 is shown in Table 4-1 and on Figure 4-1. Figure 4-2 illustrates the historic water production and purchase by month. Over the last ten years, the annual production has averaged a total of 43,340 AFY (38.7 mgd). The average production from Chino Basin is 30,605 AFY (27.3 mgd). Per the Chino Basin Judgment, the City of Ontario has appropriative rights to 16,337.40 AFY and its share of the initial operating safe yield is 11,373.82 AFY or 20.74 percent. The average amount of imported water purchased is 12,735 AFY (11.4 mgd).

There has been a decrease in production over the past three years, starting in 2007. This may be attributed to a very conscientious water conservation effort by the customers. Water conservation is discussed further in Section 4-9.

Table 4-1
Historic Water Production and Purchase (Annual)

Calendar Year	Imported			Groundwater			Total Production	
	Purchased		% of Total	Production		% of Total		
	AFY	mgd		AFY	mgd		AFY	mgd
2000	9,258	8.3	20	36,842	32.9	80	46,100	41.2
2001	8,907	8.0	20	35,105	31.3	80	44,011	39.3
2002	9,325	8.3	21	35,444	31.6	79	44,769	40.0
2003	13,207	11.8	30	30,240	27.0	70	43,447	38.8
2004	15,143	13.5	35	27,824	24.8	65	42,967	38.4
2005	13,406	12.0	32	28,799	25.7	68	42,205	37.7
2006	15,108	13.5	34	28,793	25.7	66	43,901	39.2
2007	18,178	16.2	40	26,946	24.1	60	45,124	40.3
2008	16,275	14.5	38	27,064	24.2	62	43,339	38.7
2009	8,541	7.6	23	28,996	25.9	77	37,537	33.5
Average	**12,735**	**11.4**		**30,605**	**27.3**		**43,340**	**38.7**
2000-2008 data from City's General Production Reports								
2009 data from Ontario System Operations file								

Figure 4-1
Historical Water Production and Purchase (Annual)

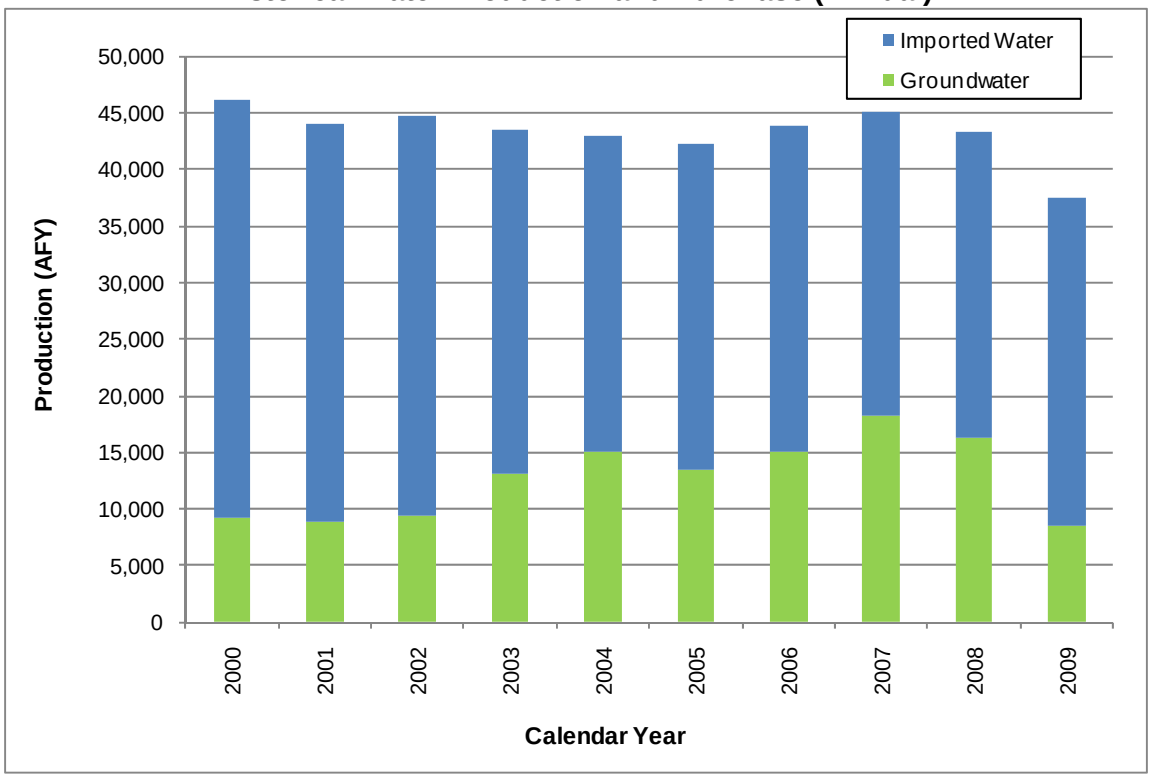
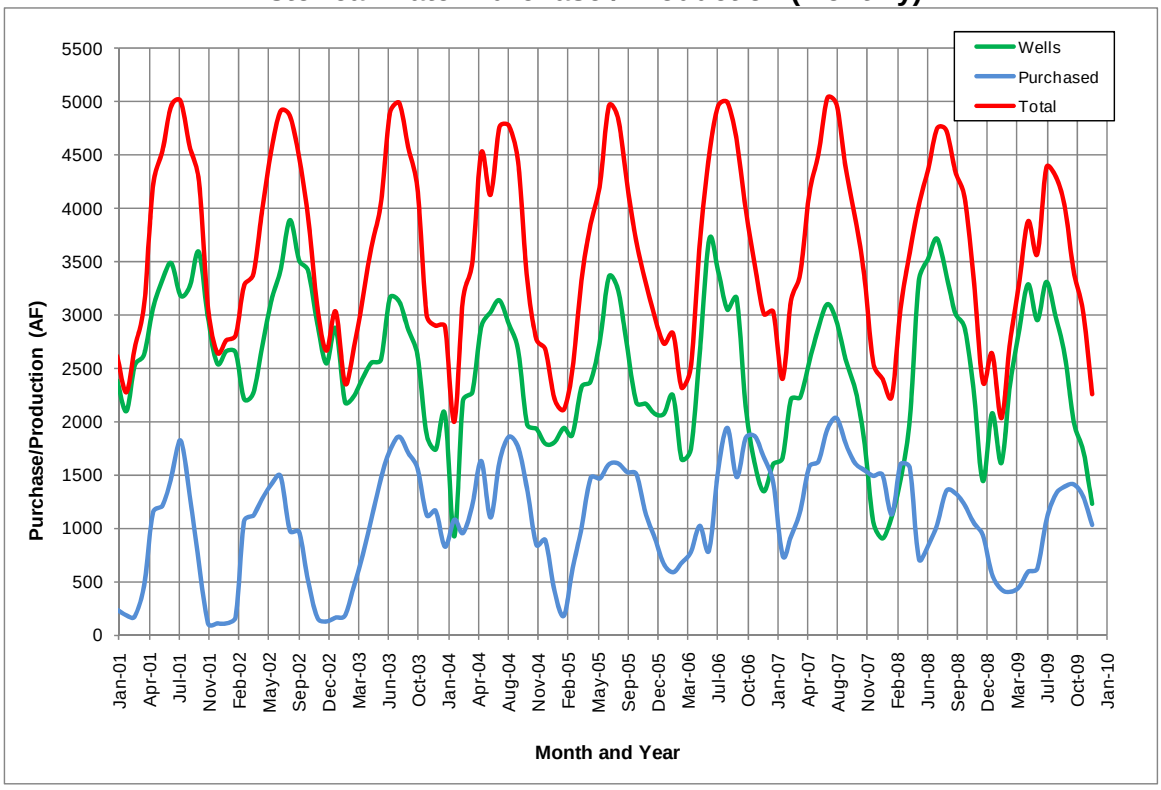


Figure 4-2
Historical Water Purchase / Production (Monthly)



4-2 Water Consumption versus Water Production / Purchase

The City typically purchases/produces more water than the quantity measured by the customer meters. Table 4-2 summarizes the difference between the measured consumption and production from 2000 to 2009. Figure 4-3 graphically shows the City's water consumption versus production/purchase. On average, 2.4 percent of the water supply is unaccounted for each year. The discrepancy is partly due to the differences in the accuracies of the few large meters which measure purchases and production, and the thousands of small customer meters which measure sales. Unaccounted for water can also be due to unmeasured uses such as water main flushing and other maintenance related tasks. The remainder may be due to leaks from the system. The average unaccounted for water rate of 2.4 is well within the industry standard. The data for water production was incomplete for calendar year 2000.

The total production / purchase data shown in Table 4-2 does not exactly match the data in Table 4-1. The data came from two different sources provided by the City. The City's General Production Reports provided monthly production numbers by well and imported water connection. The DWR Public Water System Statistics Reports provided a monthly summary of the City's overall production and consumption.

Table 4-2
Water Consumption versus Water Production/Purchase

Calendar Year	Water Consumption[1] (AFY)	Water Production/ Purchase[1] (AFY)	Percent Unaccounted For Water	Population[2]	Per Capita Production/ Purchase (GPD/Person)	Per Capita Consumption (GPD/Person)
2000	42,998	Data Incomplete	-	152,524	-	252
2001	43,108	43,951	1.9	153,951	255	250
2002	44,193	44,709	1.2	157,752	253	250
2003	41,772	43,447	3.9	160,641	241	232
2004	42,087	42,967	2.0	162,528	236	231
2005	42,097	42,205	0.3	164,308	229	229
2006	42,780	43,901	2.6	164,763	238	232
2007	44,286	44,806	1.2	166,058	241	238
2008	42,072	43,301	2.8	166,760	232	225
2009	37,708	39,538	4.6	167,138	211	201
Average	**42,310**	**43,173[3]**	**2.4[4]**	**161,642**	**237[3]**	**232**

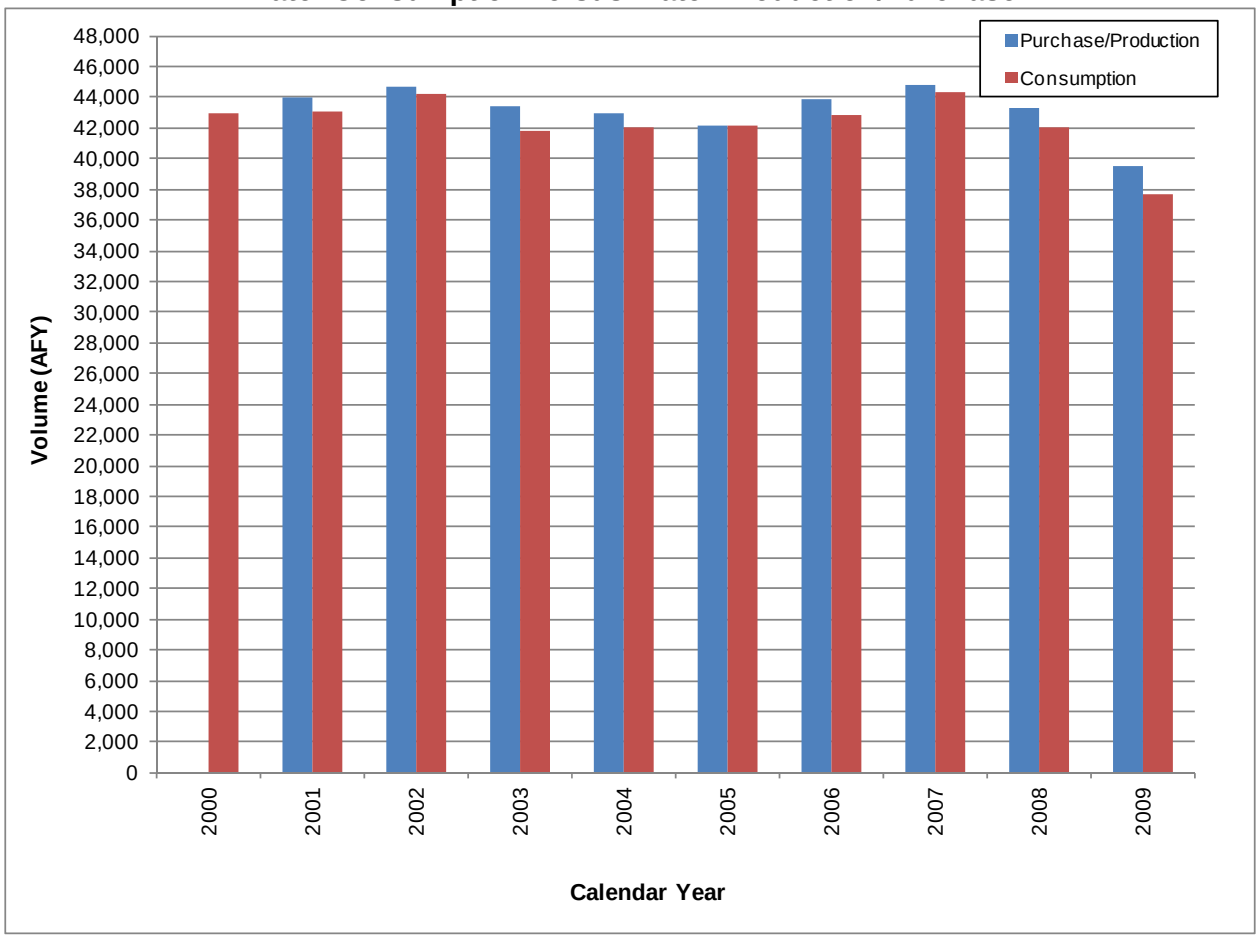
[1] Consumption and Production/Purchase data extracted from annual Department of Water Resources Public Water System Statistics Report. Consumption data for 2005 provided by City staff.

[2] Population data from California Department of Finance, E-5 Population and Housing Estimates for Cities 2000-2010, excluding estimate of population for areas in Ontario served by CVWD.

[3] Water production/purchase and per capita production/purchase averages do not include calendar year 2000 because the data was not available on the DWR report.

[4] Percent unaccounted for water average does not include calendar year 2000 data, because the data was not available.

Figure 4-3
Water Consumption versus Water Production/Purchase



4-3 Water Demand Variations

Demand variations through a year are influenced by seasonal effects such as temperature, humidity, and precipitation. System demand variations throughout a day are influenced by the customer base and the daily lifestyles of the customers. In primarily residential areas, the peak demands within a day typically occur in the morning hours between 6:00 am and 9:00 am, when customers wake to begin their daily routine. In largely commercial and industrial areas, the peaks may occur mid-day or the demand may even remain relatively constant throughout the work day. For this study, the variations are expressed as a ratio to the average demand, with the average demand being equal to one.

4-4 Monthly Demand Variations

Typical of most Southern California communities, the City's water consumption exhibits a distinct seasonal pattern. Peak and low monthly consumption occur during the dry summer months and wet winter months, respectively. Monthly demand totals for 2000 to 2009 are shown in Table 4-3. Peak demands typically occur in August and September. Low demands typically occur in February, March, or April. The highest and lowest monthly demand factors seen in Table 4-3 are 1.43 and

0.53, respectively. A graph of the monthly demand factors (monthly demand/average monthly demand) by year is illustrated on Figure 4-4.

Table 4-3
Monthly Water Demands (AF)

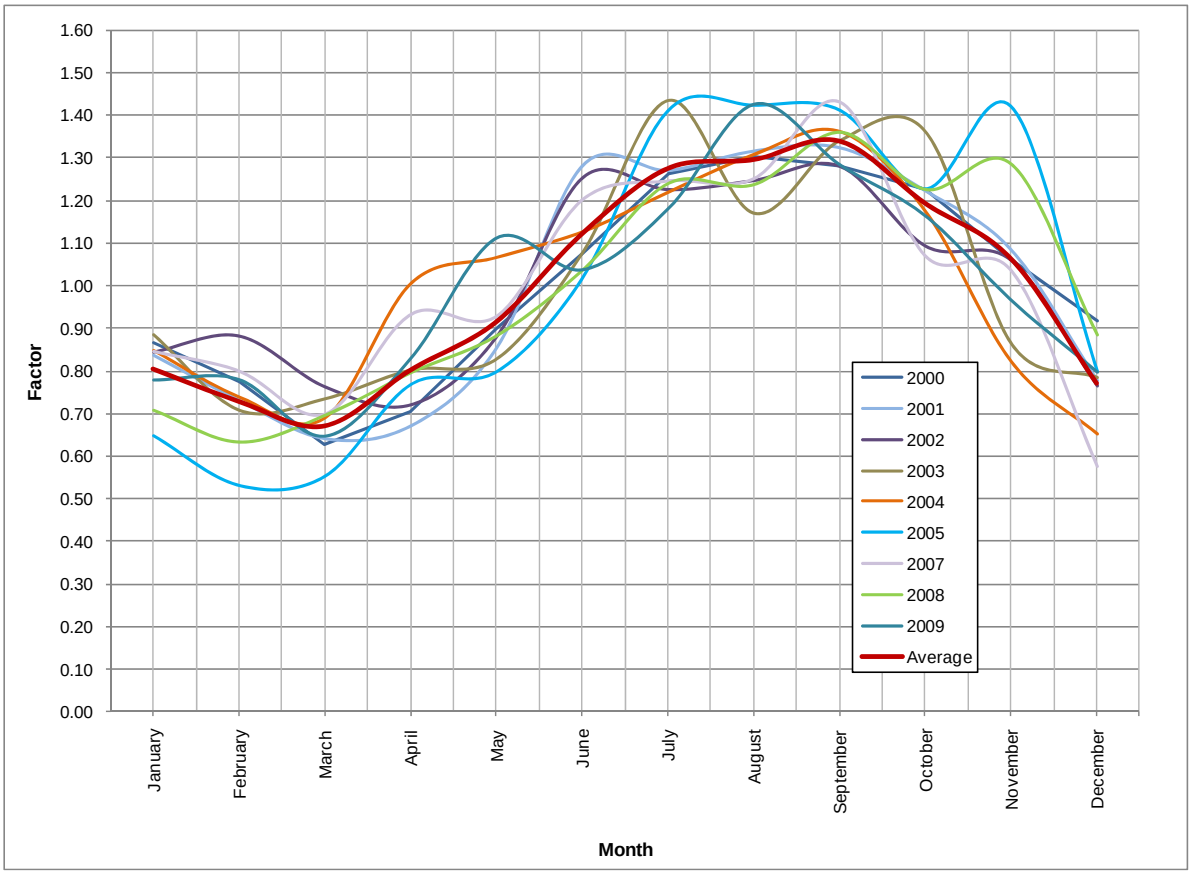
Month	2000	Factor	2001	Factor	2002	Factor	2003	Factor	2004	Factor
January	3100	0.86	3005	0.84	3105	0.84	3084	0.89	2970	0.85
February	2771	0.77	2625	0.73	3243	0.88	2469	0.71	2586	0.74
March	2255	0.63	2305	0.64	2803	0.76	2563	0.74	2416	0.69
April	2523	0.70	2413	0.67	2649	0.72	2798	0.80	3523	1.00
May	3218	0.90	3070	0.85	3239	0.88	2888	0.83	3737	1.07
June	3862	1.08	4598	1.28	4613	1.25	3754	1.08	3948	1.13
July	4532	1.26	4558	1.27	4510	1.22	4994	1.43	4276	1.22
August	4670	1.30	4721	1.31	4590	1.25	4074	1.17	4586	1.31
September	4596	1.28	4748	1.32	4712	1.28	4667	1.34	4774	1.36
October	4396	1.23	4384	1.22	4021	1.09	4737	1.36	4114	1.17
November	3810	1.06	3888	1.08	3896	1.06	3009	0.86	2875	0.82
December	3295	0.92	2793	0.78	2812	0.76	2735	0.79	2282	0.65
Average	**3586**		**3592**		**3683**		**3481**		**3507**	

Month	2005	Factor	2007	Factor	2008	Factor	2009	Factor	Average Factor
January	2555	0.65	3117	0.84	2486	0.71	2450	0.78	0.81
February	2093	0.53	2945	0.80	2225	0.63	2452	0.78	0.73
March	2180	0.55	2575	0.70	2446	0.70	2038	0.65	0.67
April	3033	0.77	3439	0.93	2796	0.80	2611	0.83	0.80
May	3151	0.80	3423	0.93	3100	0.88	3493	1.11	0.92
June	4021	1.02	4431	1.20	3639	1.04	3259	1.04	1.12
July	5578	1.41	4592	1.24	4351	1.24	3708	1.18	1.28
August	5624	1.42	4614	1.25	4342	1.24	4474	1.42	1.30
September	5577	1.41	5275	1.43	4772	1.36	4029	1.28	1.34
October	4848	1.23	3939	1.07	4301	1.23	3653	1.16	1.20
November	5608	1.42	3813	1.03	4508	1.29	3033	0.97	1.07
December	3153	0.80	2122	0.57	3106	0.89	2508	0.80	0.77
Average	**3952**		**3690**		**3506**		**3142**		

Notes: *Peak factors are highlighted in red*

Data extracted from annual Department of Water Resources Public Water System Statistics Reports

Figure 4-4
Monthly Demand Factors



4-5 Daily Demand Variations

Maximum day demand for this study was based upon a review of daily production/purchase reports for 2007 and 2008. The maximum day production/purchase for both years was approximately 1.5 times the average day demand for the year. A maximum day demand factor of 1.6 was selected for the Master Plan work to account for the limited data currently available.

4-6 Hourly Demand Variations

Knowledge of accurate demand variations over a 24-hour period is essential for proper analysis of water systems. For this study, hourly demand variations were represented by the development of a diurnal demand curve for each potable water usage type. The diurnal demand curves are employed in determining the adequacy of the sources of supply, pumping facilities, reservoirs, and the transmission / distribution facilities.

The diurnal curves developed in the City's Water and Recycled Water Master Plan, dated April 2006 were implemented in this study, which did not include diurnal curve development in its scope. The diurnal curves were generally based upon tank level information from the Supervisory Control and Data Acquisition (SCADA) system. The residential diurnal curves are shown on Figure 4-5. The diurnal curve for commercial and industrial, irrigation, schools without irrigation, and commercial and industrial uses without irrigation are shown on Figure 4-6. The school pattern

without irrigation and the commercial and industrial uses without irrigation is used for future developments where irrigation is planned to be served by recycled water, such as in New Model Colony.

Figure 4-5
Residential Diurnal Curves

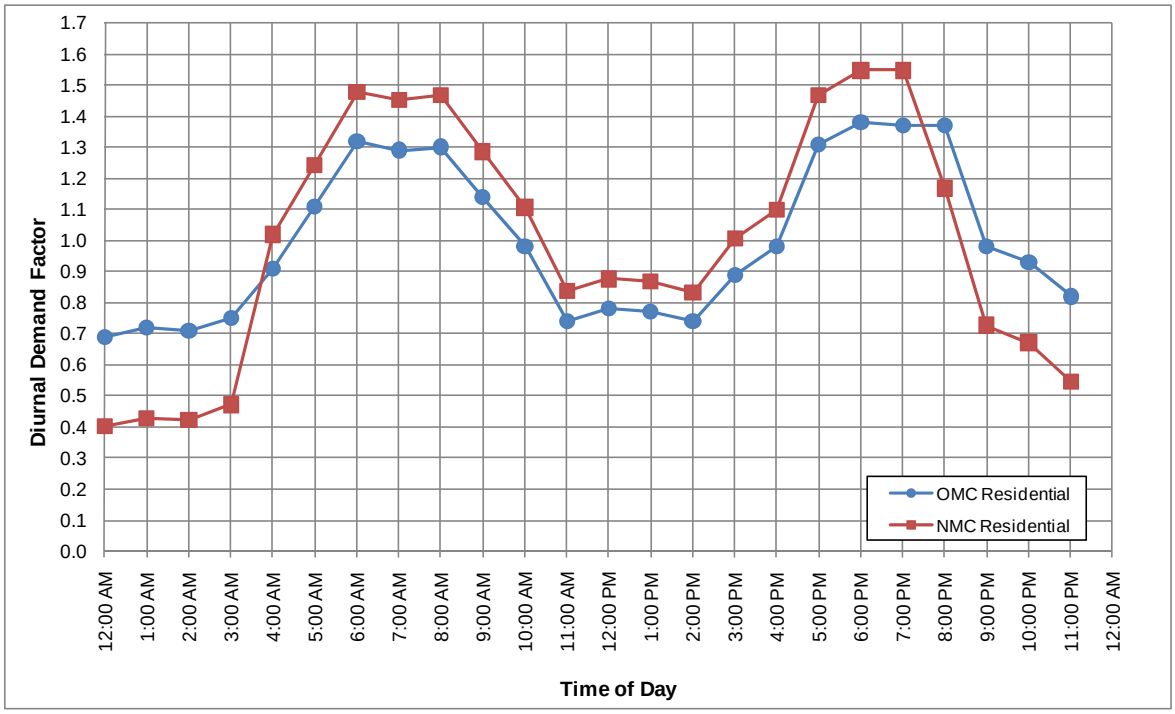
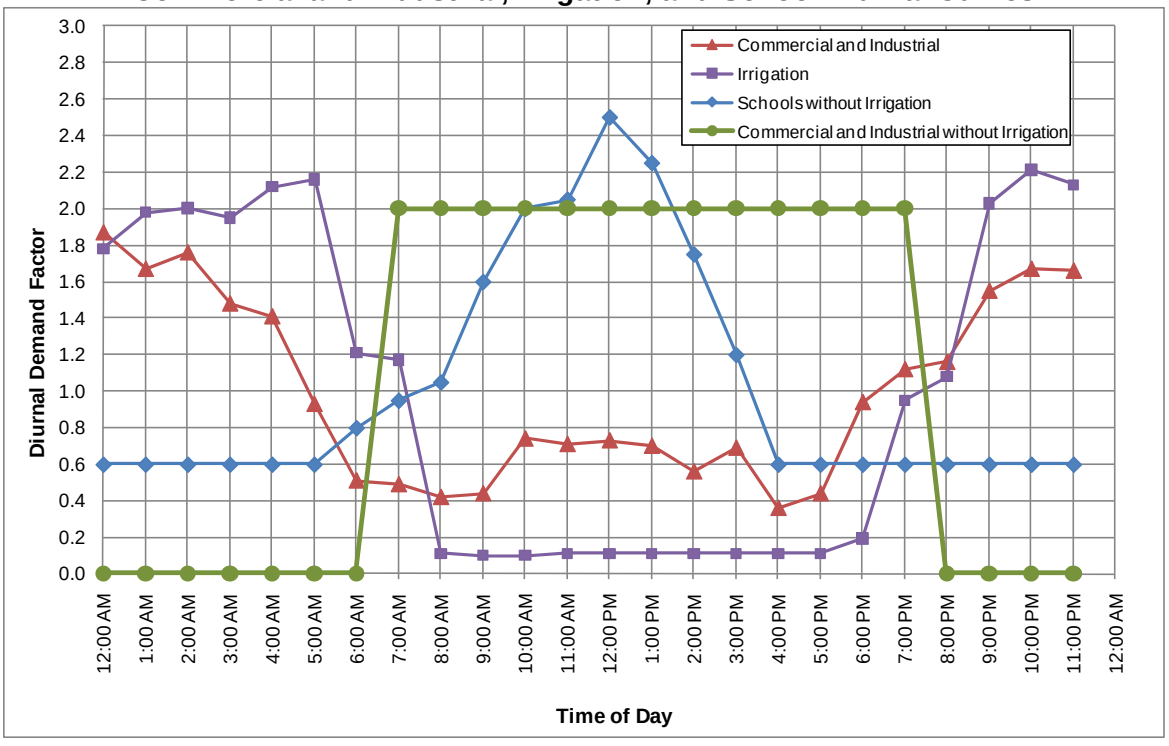


Figure 4-6
Commercial and Industrial, Irrigation, and School Diurnal Curves

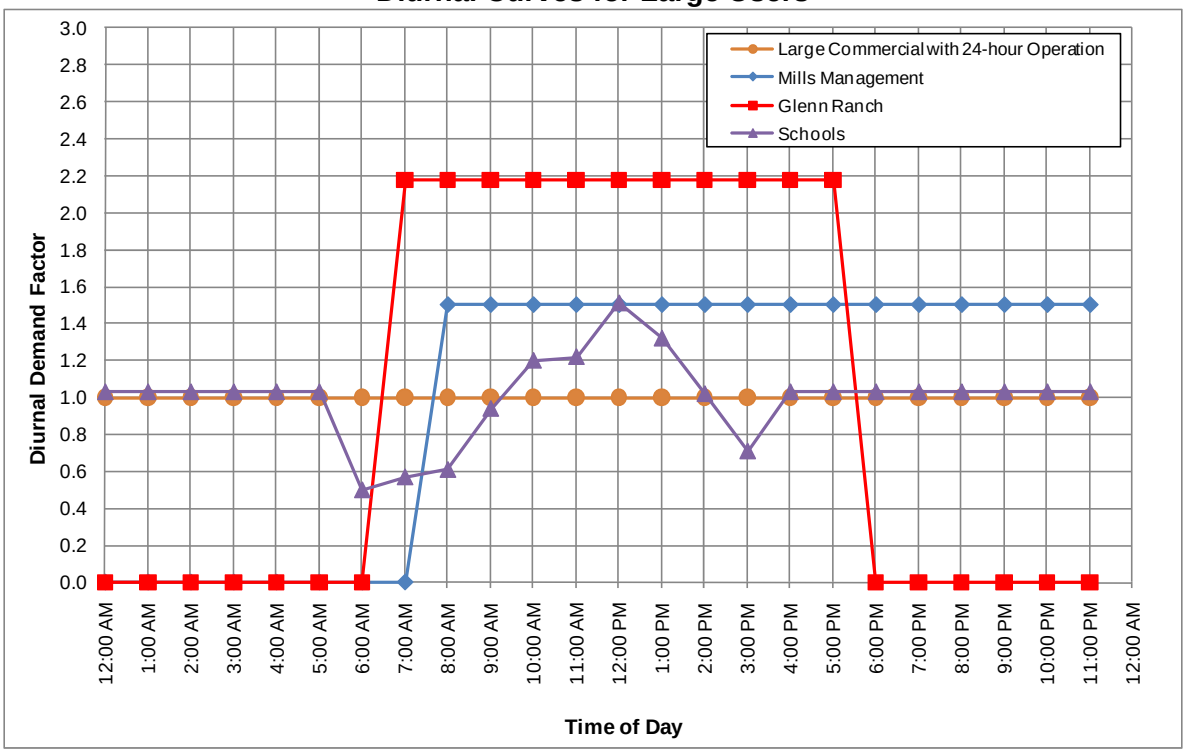


Specific curves, some of which are graphed in Figure 4-7, were developed for the large water users with specific operation times as listed in Table 4-4.

Table 4-4
Peaking Factors for Large Users

User Name	Hours of Operation	Diurnal Demand Factor
Alumin Art Plating	6 am - 11:30 pm, Mon-Fri	1.87
Arrowhead	24 hrs a day, 7 days a week	1.00
Cintas Corporation	24 hrs a day, 7 days a week	1.00
Clement Pappas	6 am - 10 pm, 7 days a week	1.50
Coca Cola USA	24 hrs a day, Sun-Thurs and 7 am - 11 pm, Fri	1.24
Crothall Healthcare Inc	24 hrs a day, 7 days a week	1.00
Culligan Water	7 am - 2 pm, Mon-Sat	4.01
Dairy Fresh Products	4 am - 12 pm, Mon-Fri and 8 am - 3 pm, Sat	3.58
Danco Metal Surfacing	6 am - 12 pm, Mon-Fri	5.62
Dominos Pizza Dist Corp	24 hrs a day, 7 days a week	1.00
Fresh Start Bakeries	24 hrs a day, 7 days a week	1.00
Inland Empire	5 am - 8 pm, Mon-Sat	1.87
LA Dpt Apts	24 hrs a day, Mon-Sat	1.17
Rama Foods	24 hrs a day, Mon-Sat	1.17
Superior Quality Foods	6 am - 1 am, Mon-Fri	1.77
Temple-Inland	24 hrs a day, 7 days a week	1.00
The Mills Mgmt Corp, Amc Theaters	8 am - 12 am, 7 days a week	1.50
Travelcenter Of	24 hrs a day, 7 days a week	1.00
Unifirst Corp	6 am - 8 pm, 7 days a week	1.50

Figure 4-7
Diurnal Curves for Large Users



4-7 System Demands and Peaking Factors

It is important to evaluate a water system during various incremental peak demands. Typically, a water system is designed to meet the maximum demands placed on it. The system components must be designed to cope with these demands as they occur. Maximum month and maximum day demands are important factors in sizing a system's supply capability. Maximum day demands usually dictate the design criteria for both system transmission and storage needs. Peak hour criterion is a measure of the system's overall adequacy with respect to its transmission and distribution elements, as well as its operational storage capacity.

The existing water system demands (OMC) are estimated as shown in Table 4-5, based on historical data.

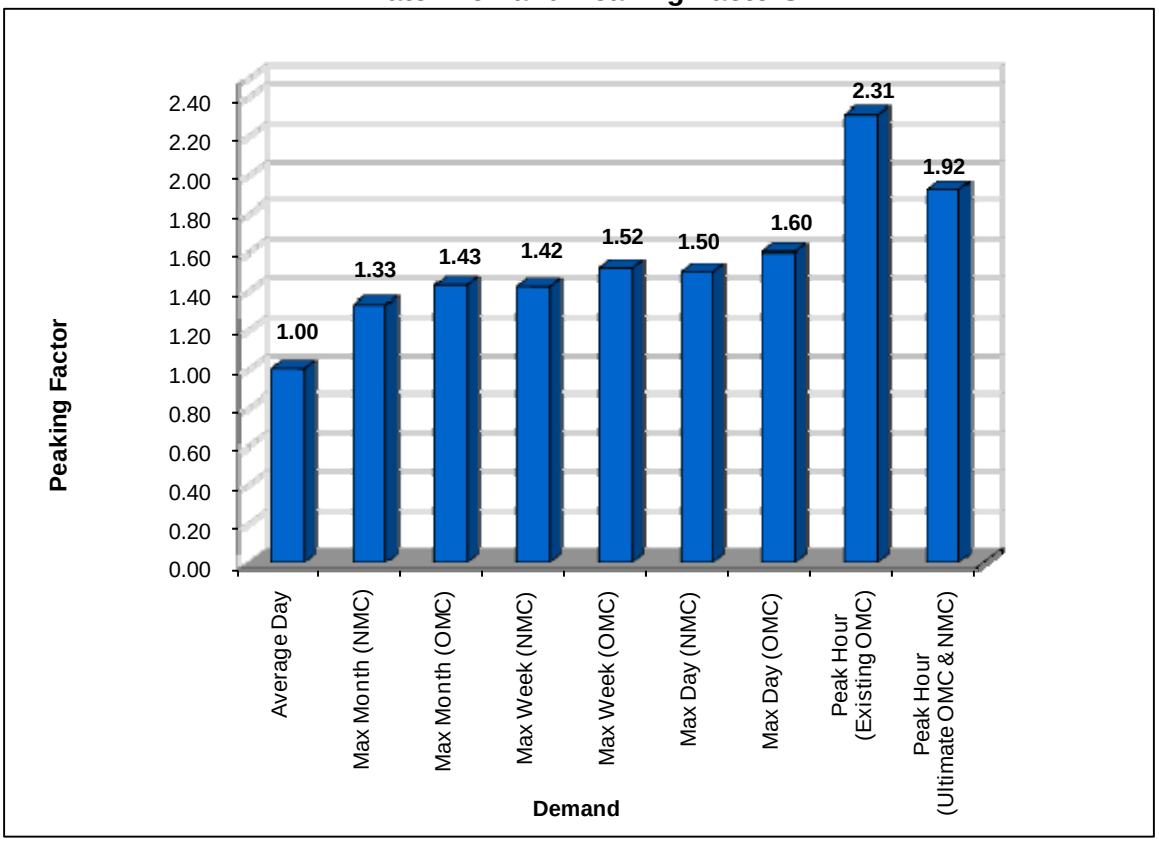
Table 4-5
Existing Water System Demands and Peaking Factors

Demand Description	Existing Demand			Peaking Factor
	(gpm)	(mgd)	(AFY)	
Average Day	23,380	33.67	37,708	1.00
Max Month	33,434	48.15	53,922	1.43
Max Week	35,538	51.18	57,316	1.52
Max Day	37,409	53.87	60,333	1.60
Peak Hour	54,032	77.81	87,143	2.31

The maximum day peaking factor for New Model Colony was further refined to account for the fact that it is planned to be largely residential in nature and there will be a dual recycled water system constructed in all major streets. The City anticipates a target of 12 percent of the total water use in low density residential areas to be provided by the recycled water system. It is expected that this percentage will increase as the residential density increases. With more recycled water and less irrigation use on the domestic water system, the maximum day peaking factor in New Model Colony is reduced to an estimated factor of 1.5. This factor is utilized for future demand estimates in New Model Colony. The relationships between the peaking factors developed for this study with respect to the average day demand estimate are displayed graphically on Figure 4-8.

In the hydraulic model, a maximum day peaking factor of 1.24 was utilized for Temple Inland, the City's largest water user. This factor was developed by review of historical water meter data. In 2008, Temple Inland used an average of 51,606 ccf per month. The maximum month demand (January 2008) was 63,967 ccf. This maximum day peaking factor (considered equivalent to the maximum month peaking factor for this study) is therefore calculated to be about 1.24 (63,967/51,606).

Figure 4-8
Water Demand Peaking Factors



**Note that the ultimate peak hour factor is 1.92 versus the existing peak hour factor of 2.31. The peak hour factor is dependent on the amount and types of land use and the hourly demand variations (described in subsection 4-6.*

4-7.1 Existing Demands

Average Day

The average day demand is based on the City of Ontario's average daily consumption for FY 2009. As shown in Table 4-5, the average day demand is approximately 37,708 AFY (23,380 gpm).

Maximum Month

The maximum month peaking factor was determined from the annual production and consumption records. Based on historical records from 2000 to 2009, the maximum month usage is about 1.43 times the average month and typically occurs in August or September. The maximum month demand is estimated at approximately 53,922 AFY (33,434 gpm).

Maximum Week

The maximum week demands are estimated to be approximately 1.52 times the average day demand or 57,316 AFY (35,538 gpm).

Maximum Day

The maximum day demands are estimated to be approximately 1.60 times the average day demand or 60,333 AFY (37,409 gpm). The Old Model Colony maximum day peaking factor was developed based on historical daily production records. The New Model Colony maximum day peaking factor was developed by excluding a portion of the water use that is expected to be served through the recycled water system (based on an assumed dwelling unit frontage and irrigation factor).

Peak Hour

The peak hour demands were based upon the diurnal demand curves illustrated on Figure 4-4 through Figure 4-6. The existing overall peak hour system demand is estimated to be 2.31 times the average day demand or about 87,143 AFY (54,032 gpm).

Existing Water Demands by Zone

Existing water demands by zone are shown in Table 4-6. These are estimates based upon the distribution of demands used in the hydraulic model. The model utilized water meter records from 2008.

Table 4-6
Existing Water Demands by Zone

	Average			Max Month			Max Week			Max Day[1]			Peak Hour[2]		
Zone	gpm	mgd	AFY	gpm	mgd	AFY	gpm	mgd	AFY	gpm	mgd	AFY	gpm	mgd	AFY
1348	2,671	3.85	4,308	3,819	5.50	6,160	4,060	5.85	6,548	4,273	6.15	6,892	6,173	8.89	9,955
1212	11,059	15.92	17,836	15,814	22.77	25,505	16,810	24.21	27,110	17,694	25.48	28,537	25,557	36.80	41,219
1074	4,977	7.17	8,026	7,117	10.25	11,478	7,565	10.89	12,200	7,963	11.47	12,842	11,501	16.56	18,549
1010	4,674	6.73	7,538	6,684	9.62	10,780	7,104	10.23	11,458	7,478	10.77	12,061	10,801	15.55	17,421
Total	**23,380**	**33.67**	**37,708**	**33,434**	**48.15**	**53,922**	**35,538**	**51.18**	**57,316**	**37,409**	**53.87**	**60,333**	**54,032**	**77.81**	**87,143**

[1] Maximum Day Demand shown is calculated using maximum day factor of 1.60. In the hydraulic model, a maximum day factor of 1.24 is used for Temple Inland.

[2] Peak Hour Demand shown for each zone is calculated using the overall system peak hour factor of 2.31. In the hydraulic model, some of the large users are assigned specific Peak Hour factors based on the user's hours of operation. The actual peak hour demands may vary by zone in the model.

4-7.2 Ultimate Demands

The City of Ontario's ultimate water system demands utilized in this study are shown in Table 4-7 by zone.

Table 4-7
Ultimate Water Demands by Zone

Zone	Average			Max Month[1]			Max Week[2]			Max Day[3]			Peak Hour[4]		
	gpm	mgd	AFY	gpm	mgd	AFY	gpm	mgd	AFY	gpm	mgd	AFY	gpm	mgd	AFY
1348	3,552	5.11	5,728	5,079	7.31	8,192	5,399	7.77	8,707	5,683	8.18	9,166	8,208	11.82	13,239
1212	15,874	22.86	25,601	22,700	32.69	36,610	24,128	34.74	38,914	25,398	36.57	40,962	36,685	52.83	59,165
1074	6,045	8.70	9,749	8,644	12.45	13,942	9,188	13.23	14,819	9,672	13.93	15,599	13,970	20.12	22,531
1010	7,878	11.34	12,705	10,737	15.46	17,317	11,446	16.48	18,460	12,076	17.39	19,477	16,162	23.27	26,065
925	12,990	18.71	20,951	17,277	24.88	27,864	18,446	26.56	29,750	19,485	28.06	31,426	24,981	35.97	40,290
Total	**46,339**	**66.73**	**74,734**	**64,438**	**92.79**	**103,925**	**68,608**	**98.80**	**110,651**	**72,315**	**104.13**	**116,630**	**89,113**	**144.01**	**161,290**

** Demands shown do not include potential recycled water use in OMC or potential recycled water conversions*

[1] Maximum Month Demand shown is calculated using maximum month factor of 1.43 for OMC demands and 1.33 for NMC demands.

[2] Maximum Week Demand shown is calculated using maximum week factor of 1.52 for OMC demands and 1.42 for NMC demands.

[3] Maximum Day Demand shown is calculated using maximum day factor of 1.60 for OMC demands and 1.50 for NMC demands. In the hydraulic model, a maximum day factor of 1.24 is used for Temple Inland.

[2] Peak Hour Demand shown for each zone is calculated using the overall system peak hour factor of 1.92. In the hydraulic model, some of the large users are assigned specific Peak Hour factors based on the user's hours of operation. The actual peak hour demands may vary by zone in the model.

A thorough explanation of the development of the ultimate demands is explained in the Ultimate Citywide Water Demand Estimate Technical Memorandum, included as Appendix 1. In summary, the following steps were used to estimate the ultimate demands:

1. Existing meter data was used for existing uses in Old Model Colony (OMC). The demands were reduced by 5 percent to account for future conservation efforts and increased by 5 percent to compensate for unaccounted for water.

2. Developed unit demand factors in gpd/ac were used to estimate demands for the vacant and future densification areas in OMC. Unit demand factors included a 5 percent reduction for future conservation efforts.

3. Developed unit demand factors in gpd/person or gpd/job were used to estimate demands for future mixed use areas. Unit demand factors included a 5 percent reduction for future conservation efforts.

4. Developed unit demand factors in gpd/person or gpd/job were used to estimate demands for future New Model Colony (NMC) residential and commercial areas. Unit demand factors included a 5 percent reduction for future conservation efforts.

5. Developed unit demand factors in gpd/ac were used to estimate demands for future NMC public facilities and schools.

6. Demands for major parks, right-of-ways, and open space areas within NMC were not included because it was assumed to be served by the recycled water system. The remainder of the areas were assumed be served by domestic water and are accounted for in the unit demand factors.

The ultimate average citywide demand estimate included in the Technical Memorandum (Appendix 1) is reported as 69,384 AFY. For this Master Plan, the ultimate average demand is estimated at 74,735 AFY as shown in Table 4-7. The reason for the difference is that the Master Plan did not account for recycled water use for future OMC developments or for recycled water use conversions in the OMC. In the event that future OMC developments do not use recycled water or if current domestic water users are not converted to the recycled water system, the domestic water system is planned to be able to accommodate all the expected ultimate demands.

The following unit demand factors were implemented for all areas where population data was available. These factors account for future water conservation efforts.

Rural Residential = 140 gpd/person

Low Density Residential = 136 gpd/person

Low-Medium Density Residential = 116 gpd/person

Medium Density Residential = 98 gpd/person

High Density Residential = 76 gpd/person

Office Commercial and Business Park = 43 gpd/job

Neighborhood Commercial = 70 gpd/job

General Commercial = 180 gpd/job

Industrial = 95 gpd/job

Mixed use office = 43 gpd/job

Mixed use non-office = 125 gpd/job

Developed unit demand factors in gpd/ac are shown in Table 4-8. As discussed in Section 4-7, different peaking factors (maximum month, maximum week, and maximum day) were developed for New Model Colony and are shown in Figure 4-8. The total system demands shown in Table 4-7 reflect the use of the various developed peaking factors.

Table 4-8
Domestic Water Unit Demand Factors

Landuse		Density (du/ac)	Density (people/ du)	Unit Demand Factor (gpd/ person or gpd/job)	Unit Demand Factor (gpd/ac)	Unit Demand Factor (gpd/du)
Residential						
Rural Residential	RR	0 - 2	4.0	140	1,120	560
Low Density Residential	LDR	2 - 5	4.0	136	2,450	544
Low Medium Density Residential	LMDR	5 - 11	4.0	116	3,940	464
Medium Density Residential (OMC)	MDR	11 - 25	3.8	98	6,730	372
Medium Density Residential (NMC)	MDR	11 - 25	3.3	98	7,220	323
High Density Residential (OMC)	HDR	25 - 45	3.3	76	8,900	251
High Density Residential (NMC)	HDR	25 - 45	2.0	76	5,320	152
Commercial						
Business Park	BP	-	-	43	2,200	-
General Commercial	GC	-	-	180	2,200	-
Hospitality[1]	HOS	-	-		5,000	-
Neighborhood Commercial	NC	-	-	70	2,200	-
Office Commercial	OC	-	-	43	3,400	-
Industrial						
Industrial	IND	-	-	95	2,000	-
Mixed Use						
Mixed Use[2]	MU	-	-	Factors for residential, see above 43 for office 125 for non-office	N/A	-
Open Space						
Open Space Non-Recreational	OS-NR	-	-	-	1,000	-
Open Space Recreational	OS-R	-	-	-	1,000	-
Public						
Public Facility	PF	-	-	-	2,200	-
Public School[3]	PS	-	-	-	3,500	-

[1] If possible it is recommended to use 150 gpd/room on a case by case basis. It is difficult to estimate the number of rooms or square footage per acre.

[2] Mixed Use demands should be based on the types of landuse that make up the specific area and the unit demand factors provided above. The City's 2010 General Plan (The Ontario Plan) provides detailed information on the landuses that make up each mixed use area (See Table 3-2 of this report).

[3] The unit demand factor 3,500 gpd/ac include an allowance for irrigation. If irrigation will be supplied by recycled water, a factor of 1,800 gpd/ac is recommended. This reduced factor was used in the hydraulic model for NMC schools.

4-8 High Water Users

The City's high water users are listed in Table 4-9.

Table 4-9
High Water Users

No.	Customer	Cutomer Address	Usage Type	Average Consumption		
				gpm	gpd	AFY
1	Temple-Inland	5100 E Jurupa St	COM	879	1,266,134	1,418
2	Cucamonga Guasti Pk	1010 N Archibald Av	COM	268	385,920	432
3	L A Dpt Apts	3450 E Airport Dr #500	WATERCOM	265	381,672	428
4	The Mills Mgmt Corp, City of Ontario, AMC Theaters	4320 E Fourth St	WATERCOM, IRRIGATN	216	311,227	349
5	Parks Dept	1200 W Fifth St	WATERCOM	193	277,531	311
6	Regis Contractors L P	955 N Duesenberg Dr	MF	178	256,752	288
7	Tiger-Drylac-USA Inc	1261 E Belmont St	IRRIGATN	147	211,003	236
8	Mountain Village/CMS	1812 S Mountain Av	MF	146	209,837	235
9	Holiday Inn Express Hotels & Suites, Parks - Median	2280 S Haven Av	WATERCOM, IRRIGATN	145	208,469	234
10	Sir James LP	3351 E Honeybrook Wy	MF	145	208,282	233
11	Reliable Properties	1373 E Fourth St	IRR	143	206,208	231
12	Lighthouse Transport LLC	2019 S Business Pw A	COM	143	205,387	230
13	U S Post Office	2300 E Airport Dr	COM	142	204,955	230
14	Chaffey High School Dist	3850 E Riverside Dr	IRRIGATN	139	199,685	224
15	Corona School	1140 N Corona Av	COM	132	190,267	213
16	Cintas Corporation	2150 S Proforma Av	WATERCOM	129	185,645	208
17	Country Meadows	1855 E Riverside Dr	MF	116	167,659	188
18	Security Capital	2800 E Riverside Dr	WATERMF	109	156,326	175
19	Crothall Healthcare Inc	5410 E Francis St	COM	100	144,317	162
20	Creekside Master/East	1 Millcreek & Riverside	IRRIGATN	94	135,461	152
21	Rancho Ontario Corp	2200 S Walker Av	IRR	92	132,278	148
22	Coca Cola USA	1650 S Vintage Av	COM	87	125,928	141
23	U P S	3121 E Jurupa St	IRRIGATN	87	124,747	140
24	Creekside West Village	2601 S Deer Creek Loop	WATERCOM	86	124,157	139
25	Clement Pappas	1755 E Acacia St	IND	77	110,362	124
26	Coastal Ontario LLC	1701 E D St	WATERMF	69	99,950	112
27	The Ontario Center	4250 E Inland Empire Bl	IRRIGATN	69	99,130	111
28	The Casitas Apts	1900 S Campus Av	MF	67	97,042	109
29	Casa Partners III L.P.	1661 E G St	WATERMF	67	96,566	108
30	Ontario Montclair	2121 S Bon View Av	IRRIGATN	66	94,651	106
31	Arrowhead, Propak California Corp	5772 E Jurupa St	WATERCOM	65	93,816	105
32	John Laing Homes	948 N Turner Av	WATERMF	63	90,662	102
33	Ontario High School	901 W Francis St	WATERCOM	61	87,595	98

Table 4-9 (Continued)
High Water Users

No.	Customer	Cutomer Address	Usage Type	Average Consumption		
				gpm	gpd	AFY
34	Colony Terrace Lp	2550 E Riverside Dr	WATERMF	58	83,045	93
35	Doubletree Hotel Ontario	222 N Vineyard Av	WATERCOM	57	82,296	92
36	Park Vista	1031 S Palmetto Av	WATERMF	55	78,797	88
37	Ontario Convention Ctr	2000 E Convention Center Wy	WATERCOM,IRRIGATN	54	77,414	87
38	Equity Residential Prop, Erp Operating Part	1005 N Center Av	IRRIGATN, WATERMF	53	75,600	85
39	State/Cal/Transp#8	2300 S Euclid/60 on ramp	IRRIGATN	52	75,499	85
40	Mountain Shadows Owners	1300 N Elderberry Av	WATERMF	49	70,416	79
41	Plasthec	1945 S Grove Av	IRRIGATN	46	66,269	74
42	Inland Empire	2450 E Philadelphia St	WATERCOM	45	64,526	72
43	Unifirst Corp	700 S Etiwanda Av	WATERCOM	44	63,504	71
44	Fairfields Ontario Towne LLC, Ontario Center Owners Assoc	950 N Duesenberg Dr	WATERMF, IRRIGATN	42	60,437	68
45	Cal Mex Nursery	3791 S Archibald Av	IRRIGATN	42	60,437	68
46	Oasis Growers Inc	3215 E Chino Av	IRRIGATN	42	60,062	67
47	Grace Yokley School	2947 S Turner Av	WATERCOM	42	59,832	67
48	Parks - Median	4750 E Jurupa St	IRRIGATN	41	59,098	66
49	Wiltgey School	1450 E G St	WATERCOM	40	57,715	65
50	Scandia Recreation Ctr	1155 S Wanamaker Av	IRRIGATN	40	57,614	65
51	Fruit Growers Supply	225 S Wineville Av	WATERCOM	39	56,275	63
52	Allegiance Health Care	4551 E Philadelphia St	IRRIGATN	37	53,813	60
53	Park Centre	850 N Center Av	WATERMF	37	53,424	60
54	Innkeepers Hospitality	700 N Haven Av	WATERCOM	36	51,941	58
55	Samoa Village#2	2300 S Sultana Av	WATERMF	35	50,846	57
56	Estancia Apartments	1720 E D St	WATERMF	35	49,896	56
57	Grove Manor	720 S Cypress Av	WATERMF	35	49,694	56
58	Parks - Median	4650 E Jurupa St	IRRIGATN	34	49,306	55
59	Culligan Water	1925 S Burgundy Pl	WATERCOM	34	48,600	54
60	Creekside School	3742 E Lytle Creek Loop	WATERCOM	34	48,485	54
61	Travelcenter Of	4265 E Guasti Rd	WATERCOM	32	46,757	52
62	Ap-Transpark Llc	2910 E Inland Empire Bl	WATERCOM	32	46,310	52
63	SW Reg Council of Carpenters	3250 E Shelby St	IRRIGATN, WATERCOM	31	43,920	49
64	Total Logistic Control, LLC	104 S Wanamaker Av	WATERCOM	30	42,696	48
65	Skechers USA Co., The Complete Logistics Co.	1670 S Champagne Av., 1670 S Etiwanda Av A	IRRIGATN, WATERCOM	30	42,566	48
66	Mission Woods Inc.	1309 W Mission Bl	WATERMF	29	42,422	48

Table 4-9 (Continued)
High Water Users

No.	Customer	Cutomer Address	Usage Type	Average Consumption		
				gpm	gpd	AFY
67	Sunstone Hotel Properties Inc.	2200 E Holt Bl	IRRIGATN	29	41,818	47
68	Chino Valley Unified	2840 S Parco Av	WATERCOM	28	41,011	46
69	Dairy Fresh Products	601 S Rockefeller Av	WATERCOM	28	40,867	46
70	Fresh Start Bakeries, Thoroughbred Properties Inc.	1220 S Baker Av	WATERCOM, IRRIGATN	28	40,910	46
71	Inland Framing & Developement	607 W Holt Bl	WATERCOM	28	40,349	45
72	Chem Lab	5180 E Airport Dr	WATERCOM	28	40,277	45
73	Bridgestone, Parks - District	4000 E Mission Bl	IRRIGATN	28	40,334	45
74	Pier 1 Imports	3000 E Philadelphia St	IRRIGATN	28	39,960	45
75	Ta Operation Corporation	4327 E Guasti Rd	WATERCOM	28	39,629	44
76	K Mart #8287 ,K Mart Dist Center	5600 E Airport Dr	WATERCOM	27	39,139	44
77	Kaiser Permanente	2295 S Vineyard Ave	WATERCOM	25	36,662	41
78	Mountain View School	2825 E Walnut St	WATERCOM	25	35,856	40
79	La Terraza Apartments	551 E Riverside Dr	WATERMF	25	35,410	40
80	Hyundai Motors	5700 E Francis St	IRRIGATN, WATERCOM	25	35,395	40
81	Inland Christian Hm	1950 S Mountain Av	WATERMF, WATERCOM, IRRIGATN	24	34,690	39
82	Metric Partners, Residence Inn	2025 E Convention Center Wy	WATERCOM	24	34,085	38
83	Americold Logistics, LLC 141	5361 E Santa Ana St	IRRIGATN	23	33,394	37
84	Ranch View School	3300 S Old Archibald Ranch Rd	IRRIGATN	23	33,394	37
85	Liu, Charles Y., Ontario Stoneridge	1253 W Stoneridge Ct	WATERMF, IRRIGATN	23	33,379	37
86		800 N Benson Av	IRRIGATN	23	32,702	37
87	Dominga High School	557 W Fifth St	WATERCOM	23	32,501	36
88	Trio Glen Community Assoc.	1751 E Flora St	WATERRES	22	31,622	35
89	Steris-Isomedix	1000 S Sarah Pl	IRRIGATN	22	31,522	35
90	Mid Cities	1360 E D St	WATERMF	22	31,190	35
91	Centrelake Assn	3261 E Guasti Rd	IRRIGATN	21	30,571	34
92	New Country 693	251 E Riverside Dr	WATERMF	21	30,528	34
93	Mountain Gate Apts	1072 E Nocta St	WATERMF	21	30,197	34
94	Crown Toyota	1201 S Kettering Dr	WATERCOM	21	30,168	34
95	DS Hotel Investment	1801 E G St	WATERCOM	20	29,333	33
96	Internatioal Paper, Majestic CCC IV LLC	3551 E Francis St	WATERCOM, IRRIGATN	20	29,203	33
97	Liberty Hardware	5555 E Jurupa St	IRRIGATN	20	29,074	33
98		755 N Mountain Av	IRRIGATN	20	29,059	33

Table 4-9 (Continued)
High Water Users

No.	Customer	Cutomer Address	Usage Type	Average Consumption		
				gpm	gpd	AFY
99	Sears Logistics Serv	5691 E Philadelphia St #100	IRRIGATN	20	29,088	33
100	Brittany Park, Philadlephia 103 Partners	926 W Philadelphia St # 99	WATERMF, IRRIGATN	20	29,002	32
101	Bellevue Cemetery	1225 W I St	IRRIGATN	20	28,426	32
102	Mag Instruments	2001 S Hellman Av	IRRIGATN, WATERCOM	20	28,238	32
103	Oaks Middle School	1205 S Oaks Av	IRRIGATN, WATERCOM	20	28,152	32
104	U Line	2950 E Jurupa St	IRRIGATN, WATERCOM	19	27,691	31
105	Wong,Thomas	405 N Vineyard Av	WATERCOM	19	27,461	31
106	Arroyo School	1700 E Seventh St	WATERCOM	19	27,490	31
107	Majestic CCC IV, Majestic Ryder Logistics	4061 E Francis St	IRRIGATN, WATERCOM	19	27,403	31
108	Merchant Of Tennis	1625 S Proforma Av	IRRIGATN	19	26,870	30
109	Mariposa School	1605 E D St	WATERCOM	19	26,827	30
110	Vargas-Montoya,Jaime	5505 E Jurupa St	WATERCOM	18	26,611	30
111	Plott Nursing Home LLC	800 E Fifth St	WATERCOM	18	26,323	29
112	Sunkist	620 E Sunkist St	WATERCOM	18	26,208	29
113	California Commerce Cntr Owner's Assoc	3660 E Airport Dr	IRRIGATN	18	26,150	29
114	Cels Enterprises, Adaya Asset Slover Ave. LP , Celestica Corporation	3980 E Earlstone Dr	IRRIGATN,WATERCOM	18	26,107	29
115	Embarq Logistics	2777 E Cedar St	IRRIGATN	18	25,862	29
116	Bedford-Prop Inv	1555 S Dupont Av	WATERCOM	18	25,675	29
117	Harris Place Apts	451 E Riverside Dr	WATERMF	18	25,517	29
118	RREEF Management Company	3281 E Guasti Rd	WATERCOM	18	25,301	28

4-9 Recycled Water

The City's existing recycled water use in OMC is estimated at 1,547 AFY as of January 2010. The recycled water is supplied by Inland Empire Utilities Agency's (IEUA) recycled water system. There are currently 147 recycled customer meters in the City.

The City's Recycled Water Master Plan is based upon increasing the recycled water use in OMC to 6,898 AFY, including 1,944 AFY in currently vacant areas, and 3,407 AFY in future conversions from potable water to recycled water along the planned recycled water pipeline alignments.

The Recycled Water Master Plan determined the need for 11,487 AFY of recycled water in NMC.

4-10 Water Conservation

Title 6, Chapter 8A, The Water Conservation Plan of the City's Municipal Code addresses water conservation issues. The reference for this Chapter is Ordinance 2907, which became effective June 16, 2009.

Voluntary conservation is encouraged to limit the amount of water used to the amount absolutely necessary for health, business, and irrigation. The following elements of conservation apply at all times on a voluntary basis:

- Avoid hose washing of sidewalks, walkways, driveways, parking areas or other paved surfaces, except as required for sanitary purposes.
- Wash motor vehicles, trailers, boats and other types of mobile equipment using a hand held bucket or a hose equipped with a positive shutoff nozzle for quick rinses, or at the immediate premises of a commercial car wash or with recycled wastewater for approved uses.
- Avoid using water to clean, fill or maintain levels in decorative fountains, ponds, lakes or other similar aesthetic structures unless such water is part of a recycling system.
- Encourage restaurants, hotels, cafés, cafeterias or other public places where food is sold, served or offered for sale, to serve drinking water only to those customers expressly requesting water.
- Promptly repair all leaks from indoor and outdoor plumbing fixtures.
- Avoid watering lawn, landscape or other turf area more often than every other day and during the hours between 6:00 a.m. and 6:00 p.m.
- Avoid causing or allowing the water to run off landscape areas into adjoining streets, sidewalks or other paved areas due to incorrectly directed or maintained sprinklers or excessive watering.

The City maintains water conservation information on their website for viewing by the public. Information includes water use efficiency and conservation tips, links to other websites pertaining to water conservation, and links to IEUA's website where indoor and outdoor rebates are offered for residents of the IEUA service area. Indoor and outdoor rebates are also offered to commercial businesses.

As the City continues to educate the community about water use efficiency and conservation, it is expected that water use will decline in the future by at least 5 percent.

4-11 Senate Bill SBx7-7 2009

Senate Bill SBx7-7 (i.e. The Water Conservation Act of 2009) was enacted in November 2009, requiring all water suppliers to increase water use efficiency. The bill requires the State of California Department of Water Resources (DWR) in consultation with other state agencies, to develop a single standardized water use reporting form that can be used by both urban and agricultural water agencies.

For urban water conservation, the legislation sets an overall goal of reducing per capita urban water use by 20 percent by December 31, 2020. Statewide, incremental progress towards this goal must be made by reducing per capita water use by at least 10 percent by December 31, 2015. SBx7-7 recognizes and accounts for the investment of urban retail water suppliers in providing recycled water for beneficial uses. In other words, recycled water use can be used to reduce the City's per capita urban water use. Because the City plans to implement recycled water for the entire NMC and future developments in OMC as well as convert some of the existing OMC users to recycled water, this will help the City comply with the 20 percent water use reduction required by SBx7-7.

Some of the most pertinent requirements of the legislation are as follows:

- Each urban retail water supplier shall develop water use targets and an interim water use target by July 1, 2011 (*completed by City)*.
- An urban retail water supplier shall include in its water management plan the baseline daily per capita water use, water use target, interim water use target, and compliance daily per capita water use. The Department of Water resources, through a public process and in consultation with the California Urban Water Conservation Council (CUWCC), shall develop technical methodologies and criteria for the consistent implementation of this part. The 2010 Urban Water Management Plan (UWMP) must be approved by the governing entity by July 1, 2011 and submitted to DWR by July 30, 2011 (*completed by City*).
- The Department of Water Resources shall adopt regulations for implementation of the provisions relating to process water.
- A Commercial, Institutional, Industrial (CII) task force is to be established that will develop and implement urban best management practices for statewide water savings.
- Effective 2016, urban retail water suppliers who do not meet the water conservation requirements established by this bill are not eligible for state water grants or loans.

DWR published a document entitled "*Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use (For the Consistent Implementation of the Water Conservation Act of 2009)*" on October 1, 2010. Nine methodologies are discussed in this document as follows:

1. Methodology 1: Gross Water Use
2. Methodology 2: Service Area Population
3. Methodology 3: Base Daily Per Capita Water Use
4. Methodology 4: Compliance Daily Per Capita Water Use
5. Methodology 5: Indoor Residential Use
6. Methodology 6: Landscaped Area Water Use
7. Methodology 7: Baseline Commercial, Industrial, and Institutional Water Use
8. Methodology 8: Criteria for Adjustments to Compliance Daily Per Capita Water Use
9. Methodology 9: Regional Compliance