

4 City-wide Water Demands

4.1 Introduction

In 2000, the City adopted its General Plan. The General Plan sets land-use patterns and population goals. The City's population in 1999 was 41,000. At buildout, the City anticipates a population of 50,400. Jobs in the City are expected to increase from 21,900 in 1999 to 31,600 at buildout.¹ The City is anticipating potential development within five designated Specific Plan Areas (SPAs); the Northwest Area, the Wilfred-Dowdell Area, the Northeast Area, the University District and the Southeast Area. In addition, the City is anticipating infill development, consisting largely of non-residential land uses.

4.2 The Growth Management Ordinance

The City has an adopted Growth Management Ordinance² that is intended to provide for orderly build-out of residential development over the General Plan planning horizon. In its simplest form, the Growth Management Ordinance has the effect of limiting the number of residential building permits issued to 225 per year. There are exceptions for affordable housing and provisions to carry over building permits (i.e. if 50 are issued in one year, 400 may be issued the following year, providing a 2-year average of 225 per year).

In October 2003, the City Council adopted Resolution 2003-252 approving a Growth Management Allocation System ("GMAS"). The intent of the GMAS is to provide guidance on the methods used for allocating residential building permits if developers request more permits in a given year than the Growth Management Ordinance allows. The GMAS is intended to "structure growth to ensure that it is not haphazard and that it supports broader planning objectives". While the GMAS system will affect the location of residential development, it will not reflect the rate at which development proceeds. The projections in Table 4-1 reflect the rate of development allowed by the Growth Management Ordinance.

Table 4-1, below presents the anticipated development pattern in 5-year increments from 2005 until 2025. Current land use data in Table 4-1 includes building permits anticipated to be allocated through the end of 2004. The City reaches General Plan build-out in 2020. The specific development projects described in Chapter 1 are anticipated to be complete by approximately 2015.

The total number of residential units at buildout shown in Table 4-1 is slightly higher than presented in the General Plan. This is the result of detailed, local research on total housing units performed for the City's Public Facilities Financing Plan. This research indicated that the Statewide estimates used in the General Plan to represent total housing units in 2000 are slightly lower than the local records indicate. This slightly higher

¹ Table 2.3-3: General Plan Buildout: Population and Jobs, General Plan

² Chapter 17.66 of the Rohnert Park Municipal Code.

baseline is included in Table 4-1. The total new housing units projected in Table 4-1 are consistent with the General Plan.

Table 4-1

Projected Development Pattern

<i>Customer Type</i>	<i>Unit</i>	<i>Current</i>	<i>2005</i>	<i>2010</i>	<i>2015</i>	<i>2020</i>	<i>2025</i>
SFR Detached	EA	7,492	7,492	8,352	8,737	8,993	8,993
SFR Attached	EA	3,039	3,039	3,518	3,631	3,744	3,744
MFR & Mobile	EA	6,035	6,035	6,696	7,336	7,867	7,867
Comm/Retail	AC	311	322	407	437	467	467
Industrial	AC	320	328	371	436	500	500
Office	AC	47	47	54	68	77	77
Public	AC	93	93	93	93	93	93
Subtotal							
Irrigation-potable	AC	70	70	28	28	28	28
Irrigation-recycled	AC	452	452	536	546	546	546

4.3 Current and Projected Demands

The City’s historic demand pattern is difficult to track because the City only recently installed residential water meters. Because of this historical demand data is available from only in totals and not be individual customer types. The UWMP lists the City’s historic demands at 7,045 AFY in 1993, 7,695 AFY in 1999 and 7,778 AFY in 2000. The City’s 2003 data, which does include some of the first data from the residential metering program indicates a total demand of 7,789 AFY.

Projected water demands are based on the unit demand rates consistent with existing City data and good engineering practices. The City currently models water demand by unit type (i.e. gallons per day per Single Family Dwelling Unit or gallons per day per Commercial Retail Acre) not by population equivalent (gallons per day per person or employee). This convention is carried forward into Table 4-2 because it is consistent with existing data. Under the City’s convention, dwelling units and developed acreage are substitutes for population. Table 4-2 presents the projected demand scenarios accounting for both potable and recycled water. Demand classes are consistent with guidance provided by Department of Water Resources for SB 610 reporting.

The City has installed irrigation meters on large landscape accounts and the Subregional system has a similar metering program for recycled water accounts. The “Irrigation” categories outlined in Table 4-2 include separately metered irrigation accounts, not irrigation that occurs through residential meters. The demand analysis includes conversion of portions of the existing irrigation demand from potable to recycled water in 2010. This is consistent with the IRWP. The City has adopted a Water Waste Ordinance that requires the use of recycled water, when it is available, for appropriate uses.

Table 4-2
Water Demand Projections

<i>Customer Type</i>	<i>Unit</i>	<i>Current*</i>	<i>2005</i>	<i>2010</i>	<i>2015</i>	<i>2020</i>	<i>2025</i>
SFR Detached	AFY	3,241	3,241	3,285	3,437	3,538	3,538
SFR Attached	AFY	983	983	1,115	1,145	1,181	1,181
MFR & Mobile	AFY	1,009	1,076	1,171	1,275	1,368	1,368
Comm/Retail	AFY	680	704	890	955	1,021	1,021
Industrial	AFY	524	537	607	714	819	819
Office	AFY	51	51	59	74	84	84
Public	AFY	102	102	102	102	102	102
Subtotal		6,591	6,694	7,229	7,702	8,112	8,112
Irrigation-potable	AFY	159	159	85	85	85	85
Irrigation-recycled	AFY	1,040	1,040	1,256	1,302	1,302	1,302

*"Current" reflects data through December 2003

4.4 Demand Management

The City is a signatory to the California Urban Water Conservation Council's MOU and reports annually on its implementation of Best Management Practices for Water Conservation. This reporting satisfies the SB 610 descriptions for demand management in the Normal Year.

The City has adopted an Ordinance establishing a Water Shortage Emergency Plan. This ordinance describes the demand management programs implemented and demand reduction achieved during dry years. The ordinance is consistent with the Agency's Urban Water Management Plan. The ordinance provides for a 10% voluntary reduction at all times (consistent with the Water Waste Ordinance and included in the baseline demand calculations) and 20% and 30% reductions as necessary to respond to curtailed supply in the event of a drought. The demand estimates in Table 4-2 reflect a 10% voluntary reduction for existing users phased-in between the present and 2010. Demand projections for new development are based on unit water use data that reflects water efficient appliances.

Table 4-3 below outlines the anticipated water demands at General Plan buildout for the normal water year and with the 20% and 30% curtailments that could be implemented in the event of drought.