5.12 UTILITIES—WATER, WASTEWATER, ELECTRICITY, NATURAL GAS, WASTE MANAGEMENT, TELECOMMUNICATION

5.12.1 WATER SUPPLY

Information in this section is derived from the following sources, among others:

- City of Chino, *Water Supply Assessment* (7/19/02)
- Subarea 2—Chino Sphere of Influence, *Water Master Plan*, Final Draft of Technical Memorandum (2/02)
- City of Chino, Urban Water Management Plan Update (1/02)

The Water Supply Assessment, located in EIR Appendix I, contains a detailed analysis of water supply and source reliability to the City and the proposed project, The Preserve (Subarea 2).

Analysis of water demand and supply projections for the City, including Subarea 2, demonstrates that projected supplies exceed demand through the year 2022. These projections consider land use, water development programs and projects, and water conservation. This analysis shows that desalted water and recycled water use will be increased, while groundwater and imported water use will remain stable. Also, recycled water will supply certain areas currently supplied with potable water, and desalted water will supply certain areas currently using available groundwater and imported water.

Reliability of future water supplies to the region will be ensured through continued implementation of the Optimum Basin Management Program (OBMP) by the Chino Basin Watermaster (Watermaster), an agency of the Court appointed to implement the OBMP mandated by the Court under its continuing jurisdiction and supervision, as part of the Physical Solution imposed by the Judgment in the Chino Basin adjudication suit (Judgment); implementation of local agency programs and cooperative efforts and programs of local agencies, including: all water retailers within the Chino Basin; Watermaster; Inland Empire Utilities Agency (IEUA); Metropolitan Water District of Southern California (MWD), Santa Ana Regional Water Quality Control Board, Santa Ana Watershed Project Authority, Chino Basin Water Conservation District and Chino Basin Desalter Authority,(CDA).

The following discussion summarizes existing water supply and demand in Subarea 2, identifies applicable legislation, analyzes the proposed project impacts relative to water supply and demand, and proposes mitigation measures. For a comprehensive analysis of these issues, reference the Water Supply Assessment in Appendix I.
The City of Chino currently receives water from the following primary water supply sources: 1) naturally recharged groundwater, 2) imported water, 3) desalted water and, 4) recycled water. The City receives approximately 38 percent of its water supply from groundwater wells accessing the groundwater of the Chino Water Basin and 40 percent of its water supply from imported water from the Metropolitan Water District of Southern California via the Water Facilities Authority-Joint Powers Agency through the Inland Empire Utilities Agency. Additionally, the City currently receives about 20 percent of its supply from desalted water from the Chino I Desalter and 2 percent of its supply from recycled water from the Carbon Canyon Wastewater Reclamation Plant. Current and planned improvements of the Chino I Desalter and Carbon Canyon Wastewater Reclamation Plant facilities, plus construction of the new Chino II Desalter facilities will increase the availability of recycled and desalted water for use by the City (see Table 5.12.4).

The City of Chino currently provides water service to an area of approximately 16.5 square miles and to approximately 14,395 customers. There are minimal portions currently not served by the City that extend beyond the westerly and southwesterly (Chino Hills) boundary of the water service area. The City currently does not supply The Preserve planning area with water, with the exception of the airport, located north of Kimball Avenue and west of Grove Avenue, and another area of approximately 220 acres. All other water in Subarea 2 is supplied by private wells.

Groundwater

The Chino Groundwater Basin provides the groundwater used to service the City of Chino. The Basin consists of about 235 square miles in the upper Santa Ana River Watershed. The Basin is a relatively flat alluvial valley from east to west and slopes from north to south at a one to two percent grade. Basin elevations range from about 2,000 feet in the foothills below the San Gabriel Mountains to about 500 feet near Prado Dam. The Chino Groundwater Basin stores approximately 5 million acre-feet (af) of groundwater and has the capability of storing an additional 1 million acre-feet. The
legally designated annual safe yield from the Basin is 140,000 acre-feet, which is the amount of groundwater that can be pumped from the Basin each year while maintaining adequate groundwater levels.

The City’s current adjudicated water rights to the groundwater in the Chino Basin, based on a share of Safe Yield of the Basin, is 4,034 af per year. Additional water rights have been and will continue to be received from reallocations of Early Transfers and Land Use Conversions, pursuant to the Judgment, Peace Agreement between the producers from the Basin, and adopted Rules and Regulations of Watermaster. For fiscal year (FY) 2001/02, the total amount of water rights available to the City from these reallocations is 5,125 af. Thus, the City currently has total rights to water of 9,159 afy for FY 2001/02.

Chino Land & Water Co. Inc., a corporation formed in 1995, has asserted ownership of some undefined, unquantified and unsubstantiated prior water rights to groundwater in the Chino Basin appurtenant or incident to 35,000 acres overlying the Chino Basin, including the proposed project. However, legal counsel for the City of Chino believes such assertion is without merit.

The City of Chino currently has one connection to the MWD imported water delivery system, located in the City of Upland. At that location, MWD’s Rialto Branch of the Foothill feeder delivers water to the Agua de Lejos Plant for treatment of 81 MGD of State Water Project water. The Water Facilities Authority (WFA), comprised of 5 member agencies, including the Monte Vista Water District, the cities of Upland, Ontario, Chino Hills, and Chino, then treats and delivers this water to these 5 member agencies.

The City of Chino is entitled to 5.9 percent of the WFA Agua de Lejos plant capacity (5,357 afy or 4.78 mgd). However, the City regularly takes up to 7.0 percent of the capacity, and plans to continue this level of imported supply. The City can take delivery of more than its entitlement when other WFA members are not taking delivery of their full entitlements. Historically, there always has been unused capacity available, and Chino always has had the opportunity to meet its water demands through purchase of additional WFA imported water. Development of local water supply programs has increased, and continued opportunity for purchase of an increased amount of such unused capacity is anticipated.

Water supply reliability is a primary goal of the Optimum Basin Management Program (OBMP) currently being implemented by Watermaster pursuant to court order. As a result, the amount of imported water available to the City from groundwater in the Basin, and the reliability of that supply is anticipated to be increased by the 33,000 acre-foot “dry year yield” program by Watermaster and MWD scheduled for final approval by December 31, 2002; an additional 400,000-500,000 acre-foot imported water storage and recovery program pursuant to a currently outstanding RFP of Watermaster; an additional annual 50,000 acre-foot recharge of groundwater from imported water
pursuant to the Recharge Master Plan adopted by Watermaster; and further increases of 18,000-23,000 acre-feet per year in the Safe Yield of the basin from storm water recharge and 18,000-23,000 acre-feet per year in the Safe Yield of the basin from recharge of recycled water produced in excess of the existing contract rights of effluent contributors.

Reliability of future imported water supply from MWD also is assured beyond reasonable doubt. Although the amount of imported water available to it from the Colorado River ultimately will be reduced to accommodate the rights of other states to such water, MWD has assured its ability to provide future water service by construction and operation of its East Side or Diamond Valley Lake Reservoir, and a variety of groundwater storage and recovery and other programs to reduce the demand for such imported water. MWD has taken the lead on drought planning for the southern California region. In 1999, MWD developed the Water Surplus and Drought Management (WSDM) Plan. This plan addresses both surplus and shortage contingencies. IEUA, and the City of Chino as a member agency of IEAU, have adopted and follow the MWD WSDM Plan. Each year, MWD considers the level of supplies available and the existing levels of water in storage to determine the appropriate management stage for that year. Each stage is associated with specific resource management actions designed to avoid an Extreme Shortage to the maximum extent possible and minimize adverse impacts to retail customers should an Extreme Shortage occur. MWD’s resource management will allow shortages to be mitigated without impacting municipal and industrial customers, except in severe or extreme shortages or emergencies. MWD’s extensive analysis of system resources demonstrated that the expected occurrence of a Severe Shortage is four percent or less in most years and it never exceeds six percent. This equates to an expected shortage occurring once every 17 to 25 years.

MWD tested the WSDM Plan by analyzing its ability to meet forecasted demands. The results indicated 100 percent reliability for full-service non-discounted demands through the forecast period under foreseeable hydrologic conditions. To determine the data presented in Table 5.12-1, MWD examined the hydrologic record and its impacts on the supply/demand balance to find the worst three-year sequence of 1990-1991-1992 for its service area.
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<tr>
<td>Average Year</td>
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<tr>
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<tr>
<td>Local</td>
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</tr>
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<td>Metropolitan</td>
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<td></td>
</tr>
<tr>
<td>Total</td>
<td>4.07</td>
<td></td>
</tr>
</tbody>
</table>

Source: The Regional Urban Water Management Plan for the Metropolitan Water District of Southern California, December 2000

Notes:
1. “GW” in table refers to Groundwater; MWD supplies include imported supplies, storage programs and transfers
2. Multiple Dry Years for 2001-2003 are based on the worst three-year sequence from the historical hydrologic record (1990-1991-1992)
3. Single Dry Year is based on the single worst year from the historical hydrologic record (1977)
4. Average Year is based on the average over all years in the historical hydrologic record (1922-1998). In average years, MWD will be adding water to storage, but the additional water supplies are not reported in this table.
Using its resource simulation model IRPSIM, MWD projected the three-year water supply situation, including climate and watershed conditions, on the projected demands for 2001-2002-2003. The model simulated the supply, demands, and the operation of MWD’s system to determine its ability to meet those demands. The simulation showed that, despite using the worst three-year sequence of hydrology, MWD would meet its demands through a combination of imported supply, withdrawals from storage programs, and transfers. The same model was used for a single dry year, and again, the simulation predicts that MWD would meet its demands under the single worst dry year scenario. The simulation also showed that MWD would be able to meet all full-service, non-discounted demands during average conditions. In fact, in average years MWD would be adding water to storage, but the additional water supplies are not reported in Table 5.12-1.

To safeguard the region from a catastrophic loss of water supply, MWD and its member agencies have made and are continuing to make substantial investments in emergency storage and interconnections with adjacent water purveyors. MWD’s emergency plan assumes that demands are reduced 25 percent from the 2020 baseline demand forecast through extraordinary conservation, while the local supplies are largely undisrupted. With few exceptions, MWD asserts it can deliver emergency supply from its East Side or Diamond Valley Lake Reservoir throughout its service area via gravity, thereby eliminating dependence on power sources that could also be disrupted by a major earthquake. MWD’s WSDM Plan will guide management of available supplies and resources during an emergency.

IEUA recently completed its emergency response plan for its service area. IEUA expects to meet emergency demands within the region through extraordinary conservation and groundwater pumping measures. Multiple sources of power exist within the service area making any electrical shortages a temporary disruption. In addition, IEAU is pursuing additional mutual aid agreements between local retail agencies.

Recycled Water

The City of Chino recycled water supplies are received predominantly from the Carbon Canyon Water Recycling Facility (CCWRF), which has a current capacity of 10 mgd or 11,205 afy of reliable non-potable recycled water. CCWRF treats an annual average of 8 mgd or 8,964 afy. The City currently provides approximately 350 afy of recycled water to 45 customers. Total CCWRF recycled water supply use equals only 24 percent of the total effluent flow.

Based on current regional recycled water production of 65,000 afy, which is expected to increase to 89,000 afy by 2020, and current annual regional recycled water use at approximately 5,600 afy, projected to increase to 71,100 afy by 2020, the City of Chino will have sufficient opportunity to take delivery to meet their projected recycled water demand of 7,700 afy by 2022. The City has the existing contract right to purchase a portion of this additional unused recycled water capacity equal
to its contribution of effluent, plus a yet undetermined additional portion of the remainder of this unused capacity which is not used for Basin recharge. IEUA also assumes responsibility for delivery of recycled water to the Chino Groundwater Basin for recharge.

Recycled water recharge for the year 2000 was approximately 500 af. By the year 2020, it is projected that 28,000 af of recycled water will be recharged. Recharged recycled water is credited to the signatories of the Regional Sewer Service Contract, based on the percentage of wastewater flow delivered to the Regional Reclamation Plants by the respective agencies. This provides additional groundwater pumping rights calculated annually as stored water credits. In FY 2001-02, the City of Chino received 51.1 af (1/10 of the total af recharged) of water rights as a result of recycled water recharge activity.

Desalter Water

The existing Chino I Desalter facility is located in the City of Chino and is owned and operated by the CDA, a joint powers agency comprised of the cities of Chino, Chino Hills, Ontario and Norco, the Jurupa Community Services District and the Santa Ana River Water Company, a mutual water company, as voting Members, and IEUA as a non-voting ex-officio Member. The Chino I Desalter currently is operated under 1) “take-or-pay” limited recourse agreements with the CDA voting Member purchasers of the water; payable from water service revenues; 2) an agreement with MWD subsidizing the Desalter to reduce the cost of the water from the Desalter compared to uninterruptible treated imported water; and 3) an agreement with the Watermaster, all groundwater producers, Kaiser Ventures, Inc., and the California Regional Water Quality Control Board, Santa Ana Region, regarding replenishment obligations for operating the Desalter. Construction of the Chino I Expansion facilities and the new Chino II Desalter facilities by the CDA have been fully funded with the $100 million proceeds of a bond issue on February 26, 2002 by the CDA, and $48 million of State Proposition 13 bond proceeds; and are scheduled for completion by December of 2003, and May of 2004, respectively.

The City of Chino currently is contractually committed to purchase a minimum of 3,000 afy of Desalter water from the Chino I Desalter facility. However, completion of the Chino I Expansion facility and the new Chino II Desalter facility will increase the City’s right and obligation to purchase an additional; 2,000 af/yr, for a total of 5,000 af/yr, pursuant to a limited recourse obligation of the city to purchase this future production of desalted water from water service revenues. The current contract allows the City of Chino to obtain additional Desalter water if the Chino Basin Desalter is capable of producing more water than is necessary to satisfy the requirements of the purchasers. Under this contract, Chino could also be entitled to more than its percentage of desalted Water, if it remains available after offered to all purchasers up to the percentage of their original allocation. Chino also has the opportunity to negotiate the purchase of an indeterminate amount of additional desalted water from other entities that are subject to the “take-or-pay” obligation, but have optimized
other sources of water, and therefore do not need to take their full entitlement of desalted water. Completion of construction of the Chino II Desalter, scheduled for May of 2004, also will produce another 9.4 MGD or approximately 10,400 acre-feet per year of additional desalted water supply, which will reduce demand for use of groundwater by a corresponding amount. Water Demand

The City of Chino’s current average water demand is approximately 15,145 afy (13.52 mgd). Table 5.12-2 shows the historical water demands for the City of Chino as reported in the IEUA Urban Water Management Plan Year 2000 Update.

### TABLE 5.12-2
CITY OF CHINO HISTORICAL WATER DEMANDS (in afy)

<table>
<thead>
<tr>
<th></th>
<th>89-90</th>
<th>90-91</th>
<th>91-92</th>
<th>92-93</th>
<th>93-94</th>
<th>94-95</th>
<th>95-96</th>
<th>96-97</th>
<th>97-98</th>
<th>98-99</th>
<th>99-00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groundwater</td>
<td>9,074</td>
<td>8,893</td>
<td>8,765</td>
<td>7,286</td>
<td>3,014</td>
<td>8,530</td>
<td>9,373</td>
<td>10,231</td>
<td>8,821</td>
<td>10,081</td>
<td>9,694</td>
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<tr>
<td>Imported</td>
<td>378</td>
<td>3,692</td>
<td>3,180</td>
<td>4,705</td>
<td>6,266</td>
<td>4,108</td>
<td>4,322</td>
<td>4,325</td>
<td>4,182</td>
<td>4,071</td>
<td>5,451</td>
</tr>
<tr>
<td>Recycled</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
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</tr>
</tbody>
</table>

As indicated in the table above, the City’s proportionate demand on groundwater is substantial. Among the key documents that govern the adjudication and management of the Chino Basin Groundwater are: 1) the 1978 Chino Basin Judgment, 2) the Peace Agreement, 3) the Optimum Basin Management Program (OBMP), and Watermaster Rules and Regulations. In essence, these documents appropriate water rights among the cities and water companies in the region.

Historical water demands in the MWD service area have increased from 3.1 million acre-feet (maf) in 1980 to 3.9 million acre-feet (maf) in 1990. Total water use is projected to grow from a projected 3.8 maf in 2000 to 4.8 maf in 2020. For the San Bernardino County service area, demands are projected to increase 50.6 percent between 2000 and 2020.

The City of Chino introduced recycled water into its system from the Carbon Canyon Water Recycling Facility (CCWRF) in FY 1998-99. In FY 1999-2000, the City used 368 af of recycled water, and projected recycled water use is expected to climb with the planned recycled water system improvements and marketing program. The Table 5.12-3 indicates the City’s recycled water demands.
Current regional recycled water production is 65,000 afy, and is expected to increase to 89,000 afy by 2020. Current annual regional recycled water use is approximately 5,600 afy, and is projected to increase to 71,100 afy by 2020. Accordingly, the City of Chino would have sufficient opportunity to take delivery to meet their projected recycled water demand (See Table 5.12.3). Additionally, the City Urban Water Management Plan shows that all increases in future recycled water supplied will be prioritized, so that direct use (landscape and individual users) will receive recycled water before recharge programs are implemented. Also, the City will be entitled to its fair share of the additional 24,000 afy of recycled water, after receiving its proportionate share based on its original allocation amount.

Overall demand and supply projections consider land use, development of groundwater programs, desalter expansion and development, and connection to recycled water sources. Demand projections also consider water savings resulting from plumbing codes, price effects, and actual and projected implementation of water conservation Best Management Practices. Based on these factors, as desalted water and recycled water use are maximized within the Chino Groundwater Basin in the future, the demand for groundwater and imported water supplies is anticipated to remain stable. Recycled water will help supply areas currently supplied with potable water, and desalted water will supply areas currently using available groundwater and imported water.

**Recent Water Legislation**

**Senate Bill 221 (SB 221)**

Senate Bill 221 (SB 221), chaptered into law October 9, 2001 prohibits approval of a tentative map, or a parcel map, or a development agreement for a subdivision of property of more than 500 dwelling units “…unless the legislative body of a city or county or the designated advisory agency provides written verification from the applicable public water system that a sufficient water supply is available or, … a specified finding is made by the local agency that sufficient water supplies are, or will be, available prior to completion of the project”. A statement of the provisions that have been made for water is satisfied by submitting a copy of the written verification of the availability of a sufficient
water supply. This is known as a Water Supply Assessment. The proposed project is subject to SB 221, in part because the project would include phased development of more than 500 dwelling units.

**Senate Bill 610 (SB 610)**

Senate Bill 610 (SB610), also chaptered into law on October 9, 2001 requires additional information to be included as part of an Urban Water Management Plan (UWMP), if groundwater is identified as a source of water available to the supplier. Information must include a description of all water supply projects and programs that may be undertaken to meet total projected water use. The proposed project also is subject to SB 610 since the proposed project has identified groundwater as a source of water necessary to supply the proposed project’s demands. The Water Supply Assessment in Appendix I includes a description of water supply programs that will be undertaken to serve the proposed project.

**Existing Water Programs and Plans**

Water programs and plans in effect in the planning area are listed below and described more fully in the Water Supply Assessment (Appendix I). Such programs and plans include, but are not limited to, the following:

- City of Chino Water Shortage Contingency Plan
- MWD Water Surplus and Drought Management Plan
- MWD Catastrophic Loss Planning Measures
- Regional Best Management Practices (BMP) Programs (implemented by IEUA)
- *City of Chino, Urban Water Management Plan Update, January 2002*
- Metropolitan Water District of Southern California, The Regional Urban Water Management Plan for the Metropolitan Water District of Southern California, December 2000
Water Quality

Total dissolved solids (TDS) and nitrates are problems in Chino Basin groundwater. Refer to Hydrology and Water Quality, Section 5.3 and Dairy Waste, Section 5.12 for further discussion.

Threshold of Significance

The following criteria are adapted from the California Environmental Quality Act (CEQA) Guidelines Section 15083.5 for use in evaluating the significance of water supply impacts resulting from the proposed project. A project would typically result in a significant adverse water supply impact if it would:

- Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;

- Have insufficient water supplies available to serve the project from existing entitlements and resources, or reasonably anticipated new or expanded entitlements.

Project Impacts

Impacts on Water Supply and Demand

A dual (potable and recycled) water system is planned for The Preserve to conserve potable water and make best use of available supplies. According to the City of Chino’s Water Master Plan¹, The Preserve at buildout is determined to generate a need for 4,267.5 gallons per minute (GPM) (6.1 MGD) of potable water and 2,776.5 GPM (4.0 MGD) of recycled water. These figures are derived from quantifying the various future land uses of the project site and applying a representative value of water usage (water demand factors) for each type of land use designation.² Water demand associated with implementation of the proposed project is illustrated in the following tables, which demonstrate that current and projected water supply and demand for the City of Chino are adequate for the next thirty five years, including the proposed development of Subarea 2.

² The water demand factors were initially developed by comparing past water master plans prepared for five cities in the vicinity of Subarea 2. These preliminary factors were then compared to the values used in the City’s 1992 Water Master Plan to deduce factors that will be reflective of future conditions. The values incorporate currently mandated conservation practices for water use, including: installation of low volume-flushing toilets; low-flow showerheads and faucets; and minimization of potable water use for commercial and industrial irrigation.
### TABLE 5.12-4
PROPOSED PLAN ALLOCATED WATER DEMANDS

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<td>1,300</td>
<td>97.4</td>
<td>87.9</td>
</tr>
<tr>
<td>Low Density Residential (LDR)</td>
<td>3,600</td>
<td>236.2</td>
<td>590.5</td>
</tr>
<tr>
<td>Medium Density Residential (MDR)</td>
<td>4,600</td>
<td>410.9</td>
<td>1,312.6</td>
</tr>
<tr>
<td>High Density Residential (HDR)</td>
<td>7,600</td>
<td>111.4</td>
<td>587.9</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>3,800</strong></td>
<td><strong>4,267.5</strong></td>
<td><strong>1,630</strong></td>
</tr>
</tbody>
</table>

¹ DC = Detention Center
² Since there is no land use designation for schools and parks; the demand has been incorporated into the demands for the other land use designations.

As discussed, the City’s current daily demand is approximately 15,145 acre-feet per year (afy) or 13.52 million gallons per day (mgd). This demand is satisfied from groundwater and imported water, with current minimal desalted and recycled water supplies. Current and planned improvements will increase the use of desalted and recycled water supplies. The annexation and buildout of Subarea 2 will generate an additional build-out need of approximately 11,317 afy or 10.1 mgd of water. This
11,317-afy demand is projected from both potable and recycled sources based on use; 6,835 afy (6.1mgd) of potable water and 4,482 afy (4.0 mgd) of recycled water.

**Table 5.12-5**

**Current and Projected Water Demand and Supply—City of Chino**  
(Including Proposed Project) (afy)

<table>
<thead>
<tr>
<th>Water Sources</th>
<th>2000</th>
<th>2005</th>
<th>2010</th>
<th>2015</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demand</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potable City</td>
<td>14,977</td>
<td>15,700</td>
<td>13,910</td>
<td>13,290</td>
<td>13,088</td>
</tr>
<tr>
<td>Subarea 2</td>
<td>0</td>
<td>1,680</td>
<td>2,740</td>
<td>3,810</td>
<td>5,132</td>
</tr>
<tr>
<td>Recycled City</td>
<td>368</td>
<td>350</td>
<td>1,750</td>
<td>2,500</td>
<td>3,060</td>
</tr>
<tr>
<td>Subarea 2</td>
<td>0</td>
<td>325</td>
<td>650</td>
<td>1,350</td>
<td>2,330</td>
</tr>
<tr>
<td><strong>Total Water Demand</strong></td>
<td>15,345</td>
<td>18,055</td>
<td>19,050</td>
<td>20,950</td>
<td>23,610</td>
</tr>
<tr>
<td><strong>Supply</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Groundwater</td>
<td>9,694</td>
<td>11,557</td>
<td>11,557</td>
<td>11,557</td>
<td>11,557</td>
</tr>
<tr>
<td>Desalted</td>
<td>3,000</td>
<td>5,000</td>
<td>5,000</td>
<td>5,000</td>
<td>5,000</td>
</tr>
<tr>
<td>Imported</td>
<td>5,451</td>
<td>5,357</td>
<td>5,357</td>
<td>5,357</td>
<td>5,357</td>
</tr>
<tr>
<td>Recycled</td>
<td>368</td>
<td>1,000</td>
<td>3,400</td>
<td>3,910</td>
<td>5,534</td>
</tr>
<tr>
<td><strong>Total Water Supply</strong></td>
<td>18,513</td>
<td>22,914</td>
<td>25,314</td>
<td>25,824</td>
<td>27,448</td>
</tr>
<tr>
<td><strong>Surplus Supply</strong></td>
<td>3,168</td>
<td>4,859</td>
<td>5,264</td>
<td>4,814</td>
<td>3,838</td>
</tr>
</tbody>
</table>

**Demand Assumptions:**
1. City Potable Demand: City of Chino Urban Water Management Plan Update, January 2002, demand projections included potable, but not recycled, Subarea 2 demand projections. Through year 2020, this Assessment allocates the City’s UWMP demand allocations between City and Subarea 2 potable, and City recycled water projections.
2. Subarea 2 Potable Demand: Regional Water Quality Supply Plan from OBMP for years through 2020; straight line increase through Year 2022.
3. City Recycled Demand: Year 2000 is actual use; years 2005 through Year 2022 are based on completion of the Regional Recycled Water System by 2010 and additional efforts to connect customers.
4. Subarea 2 Recycled Demand: Assumed slower demand in earlier development years, increasing significantly by year 2010 through buildout demand of 4,482 afy.

**Supply Assumptions:**
1. Groundwater: Year 2000 is actual use; years 2005-2022 include assigned water rights (4,034 afy), early transfer rights (2,413 afy), and conversion rights for Subarea 2 (5,110 afy). This amount assumes additional groundwater can be produced for an additional assessment on each acre-foot overproduced, limited to the Safe Yield of the Basin; groundwater replenishment expands the opportunity to overproduce.
2. Desalted: Chino I Desalter existing contract: 3,000 afy; Chino I Expansion: 2,000 afy; total contract after expansion by December 2003: 5,000 afy; more can be purchased if unused capacity is available.
3. Imported: Entitlement to WFA production water: 5.9% of plant 81 mgd capacity = 4.78 mgd (5,357 afy); more can be purchased if unused capacity is available.
4. Recycled: Year 2000 is actual use; years 2005-2020 use demand projections from the IEUA Recycled Water System Feasibility Study, Final Draft, October 2001, adjusted in years 2015 and 2020 to more reasonable City projections. Years 2010–2022 assume development of Regional Recycled Water Systems by 2010, which merges all the recycled water plants together, creating no maximum entitlement to recycled water. Therefore, supply will meet demand.
As indicated in Table 5.12-5, despite the increased water demand created by implementation of the proposed development in Chino Subarea 2, water supply is expected to continue to exceed demand through the year 2022.

Phasing of Subarea 2 development would occur over a 20-year period, intended to minimize impacts to local areas. Development phasing will originate in the north/northwest section near Kimball Avenue and Chino Airport, and progress in a generally clockwise fashion to the northeast, southeast, and finally to the southwest sector. This phasing is consistent with a logical progression of infrastructure from surrounding developed and developing areas to the north and west, and provides for a manageable phasing of water demand. Water demands for Subarea 2 are expected to be met almost entirely from sources that are currently being planned, developed and implemented, including desalter water, recycled water, and conservation programs. Groundwater demand could remain relatively stable throughout the forecast period with maximum use of these alternative sources. Therefore, current and forecasted water supplies are anticipated to be adequate to support the level of phased development proposed in Chino Subarea 2.

Impact on Water Sources and Facilities

The City’s present potable water system is divided into an upper pressure zone and a lower pressure zone. The upper pressure zone is a pumped water system. The lower zone is gravity fed by pressure reducing valves in the vicinity of Walnut Avenue and Chino Avenue from the western City boundary to the eastern City boundary. For the purposes of the plan area, Subarea 2 will become a new pressure zone at a hydraulic grade of 780 ft above mean sea level in the potable water system.

Potable Water Sources

Based on allocated water demands in Table 5.12-4, the proposed project is expected to generate an average potable water demand of 6.1 MGD at build out. The Chino I Desalter, which currently is owned and operated by the CDA, will be expanded from its existing capacity of approximately 8.0 MGD to 12.46 MGD, of which approximately 4.5 MGD will be available to the City of Chino for supplying the Project area.

The remaining 1.6 MGD must be obtained from other potable water supply sources. The City will make up this 1.6 MGD outstanding water need by purchasing additional groundwater or imported water by taking advantage of the opportunities to increase supply to meet demand through the following measures: 1) production of groundwater over entitlement based on Safe Yield limitations; 2) increasing imported water purchases; 3) purchasing additional desalted water, if more is produced than is needed to satisfy the requirements of other purchasers. Collectively, these additional options will enable water supply to exceed water demand for the City of Chino now and into the future. Therefore, as reflected in the Water Supply Assessment, there are multiple sources of sufficient water
supply available to meet the entire 6.1 MGD demand associated with the proposed project, and therefore no significant impact would result from project implementation. Exhibit 5.12-1 portrays the proposed domestic water plan for the project area.

The Water Master Plan calculates total required storage capacity for the potable water system at 9.66 MG. Determination of water storage requirements for the potable water distribution system is based on three requirements: (1) operational storage; (2) emergency storage; and (3) fire protection (Table 5.12-6).

<table>
<thead>
<tr>
<th>Description</th>
<th>Design Criteria</th>
<th>Million Gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational</td>
<td>30% of maximum day demand</td>
<td>2.6</td>
</tr>
<tr>
<td>Emergency</td>
<td>Volume of one-day annual average demand</td>
<td>6.1</td>
</tr>
<tr>
<td>Fire Protection</td>
<td>4 hrs of 4,000 gpm</td>
<td>0.96</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>9.66</strong></td>
</tr>
</tbody>
</table>

In order to store and transport the potable water, additional facilities must be constructed. It is proposed that the total storage of 9.66 MG be maintained in two reservoirs, each with a capacity of approximately 4.8 MG. It is proposed that one storage reservoir and multi-pump station to be located in the vicinity of Kimball Avenue and Euclid Avenue. An additional pump station is proposed for the northern side of the Preserve in the proximity of the Chino airport. The location of the second reservoir depends on the additional water source, which will be determined in the citywide water supply analysis for the Water Master Plan Update. To provide a reliable water source, the second reservoir is proposed to be located at the north side of Subarea 2, because this vicinity has the best potential to tie in with the existing water system of the City of Chino. This location allows for the equal distribution of flows in Subarea 2, while maintaining a close proximity to areas of high demand and existing developments, such as Chino Airport and the southeastern portion of the City.

**Recycled Water Sources**

Based on the various land uses within The Preserve (see Table 5.12-4), 4.0 MGD (2776.5 gpm) are required to meet average day need and 10.4 MGD are required for the maximum day need.
SOURCE: The Planning Center

Exhibit 5.12-1

Proposed Domestic Water Plan

THE PRESERVE • CHINO SUBAREA 2
The total required operational storage capacity for recycled water at the project site is 8.9 MG of water, based on a peak hour demand of 31.2 MG and a maximum day demand of 10.4 MGD, coupled with constant flow requirement of 2 MG at night, when wastewater flows are low. The operational storage is defined as the volume of the difference between peak hour demand and maximum day demand during an 8-hour period. Recycled water will be used for irrigation and industrial needs that do not require potable–quality water.

To meet the proposed project 8.9 MG requirement for recycled water storage, the City will obtain recycled water from IEUA. Potential IEUA sources are: Regional Plant 1 (RP-1), Regional Plant 2 (RP-2), Regional Plant 4 (RP-4), Regional Plant 5 (RP-5), and Carbon Canyon Water Reclamation Facility (CCWRF). At the present, IEUA is completing the interconnection of all five wastewater treatment facilities. The proposed recycled water distribution to Subarea 2 will include a redundant system, supplied, on the one hand, from RP-1/RP-4 in the north and from RP-2/RP-5/CCWRF in the west (Exhibit 5.12-2 Proposed Reclaimed Water System).

Under the Ten-Year Capital Improvement Plan of IEUA for Fiscal Years 1997-98 through 2007-08, CCWRF, RP-5 and RP-1 have the potential to expand to a capacity of 20.4 MGD, 30 MGD, and 80 MGD, respectively, over the next forty years. This multi-source supply increases the reliability of the system, and assures that an adequate supply of recycled water will be available to satisfy the future 7,700 afy recycled water demands in Subarea 2 for year 2022, and 8,476 afy demand for year 2030.

Current use of recycled water is 5,600 afy in the IEUA service area. Recycled water use is expected to increase to 100,000 afy with a total utilization of about 70,000 afy with the development of a recycled water program for landscape irrigation (29,000 af), groundwater recharge (producing 28,00 afy of increased yield from the Basin), industrial use (13,000 af) and agricultural use (100 af)3. As storm water recharge is increased, a greater percentage of recycled water can be recharged to the Basin through blending with the higher quality natural waters.

By the year 2020, over 70,000 afy of recycled water is expected to be available within the IEUA service area. This represents about 60 percent of the recycled flow in 2020. Over 40,000 afy would be discharged downstream into the Prado Basin flowing into the Santa Ana River to Orange County under present conditions. However, IEUA’s goal is to fully utilize the recycled water supply for local beneficial uses within the Basin. When blended with storm water during wet years and with imported water in all years, the recycled water will help replenish groundwater supplies within the Basin. Maximizing the use of recycled water will reduce the dependence on imported water within the Basin by 50,000 afy at the present rate of flow, and by more than 70,000 afy within 20 years.

3 IEUA Recycled Water System Feasibility Study, Final Draft, October 2001
Proposed Reclaimed Water System

Exhibit 5.12-2

The Planning Center

Proposed 8" Diameter
Proposed 12" Diameter
Proposed 18" Diameter
Existing IEUA System: 20" - 30" Diameter
To accomplish this, IEUA has recently completed their Recycled Water System Feasibility Study of project alternatives. The feasibility study identifies that Phase 1 of the Regional Recycled Water Distribution System Program would include recharge basin upgrades/expansions, new basins, regional recycled water pipelines, pumping and storage facilities, and local recycled water pipelines.

IEUA’s goal is to construct the Regional Recycled Water Distribution System within 10 years to maximize reuse. The regional system will reduce, and thereby conserve imported water to the Basin and will also conserve natural or storm water, in compliance with the existing Santa Ana River Basin Water Quality Control Plan, the OBMP, and the IEUA Urban Water Management Plan. The California State Legislature has made it mandatory for major water users to use recycled water, if the resource is readily available and complies with specific regulations.

According to IEUA Ten-Year Capital Improvement Plan (Fiscal Year 1997-98 through 2007-08) CCWRF, RP-5 and RP-1 have the potential to expand capacity significantly over the next forty years. This multi-source supply increases the reliability of the system. For the supply of recycled water demands in Subarea 2, adequate resources are available. Such reliability is important to an emergency event whereby the potable source may be rendered incapable of supplying enough water.

IEUA has been active in seeking grant funding to match the capital investment of IEUA in the construction of the Regional Water Distribution System. IEUA has been seeking funding opportunities through the following sources: 1) Proposition 13, the Safe Drinking Water, Clean Water, Watershed Protection, and Flood Protection Bond Act, funds through five agencies, 2) Clean Water Act and Water Quality Planning Grants through the US Environmental Protection Agency; 3) US Bureau of Reclamation under the Southern California Initiative, Southern California Comprehensive Water Reclamation and Reuse Program; and 4) an energy conservation funding grant through the California Energy Commission under AB 970.

**Cumulative Impacts**

The proposed project will cumulatively increase water demands in the City of Chino and region. However, Table 5.12-5 illustrates that projected water supply and demand are anticipated to be in balance, for the City of Chino and the proposed project, well into the future. Based on the City’s Final Draft of Technical Memorandum of the Water System Master Plan for Subarea 2 (2001), and the City’s Water Supply Assessment (Appendix I), the City is expected to meet cumulative water demands through multiple reliable sources, including potable, desalted, groundwater and recycled water sources. The proposed project will result in a less than significant cumulative impact on water resources.
Mitigation Measures

U-W-1 Consistent with SB 221, subsequent development projects within the plan area shall be reviewed by the City to confirm the availability of sufficient water supplies to meet project water needs.

U-W-2 Consistent with requirements of AB 2838, the City shall periodically review and update its urban water management plan to ensure that adequate water supplies and facilities are available to meet future growth.

U-W-3 Subsequent development projects should be designed to incorporate features that encourage and promote groundwater replenishment.

U-W-4 Retention of precipitation and runoff on-site should be encouraged in development designs where appropriate.

U-W-5 The City shall continue to support efforts to develop the water supply and to encourage water conservation. Water conservation techniques appropriate for new and existing development include:

- Installing flow restrictors in showers.
- Repairing leaky water fixtures.
- Promoting drought resistant low maintenance vegetation.

U-W-6 The City shall coordinate its efforts with the IEUA to expand the re-use of wastewater for such uses as the irrigation of parkways, golf courses, landscaped areas, and parks, and, if feasible, for industrial processes.

U-W-7 The City shall engage in water conservation programs and activities, including but not limited to, participation in the following water conservation practices:

- Water Survey Programs for Single-Family Residential and Multi-Family Residential Customers
- Residential Plumbing Retrofits
- System Water Audits, Leak Detectors and Repair
- Large Landscape Conservation Programs and Incentives
- High Efficiency Washing Machine Programs
- Public Information and School Education Programs
- Conservation Programs for Commercial, Industrial and Institutional Accounts
• Wholesale Agency Technical Assistance Program

• Conservation Pricing

**U-W-8** Where erosion or water runoff is not a problem, encourage use of on-site water recharge, such as dry wells.

**Level of Significance after Mitigation**

The project will create a need for new water infrastructure and an increased demand for water supplies. With implementation of the Water System Master Plan for Subarea 2, the City’s Urban Water Management Plan, and the identified mitigation measures to meet future needs of the project and City, significant adverse impacts are not expected.

**5.12.2 WASTEWATER**

**Existing Conditions**

The plan area does not presently have a system for wastewater collection, treatment, and disposal. Wastewater disposal is currently accomplished with private sewage disposal systems, i.e., a septic tank and subsurface disposal fields. As the plan area is annexed to the City of Chino, sewer pipelines for the collection of wastewater will be constructed to serve new developments. This is in compliance with the existing City of Chino policy to require financing and implementation plans for sewage systems improvements as a condition of development approval. It is anticipated that the entire annexation area will be included in a contractual agreement between the City of Chino and the provider of sewage treatment and disposal, the Inland Empire Utilities Agency (IEUA).

IEUA operates a regional wastewater collection system for the delivery of sewage from member cities or water districts to treatment plants. IEUA’s regional wastewater system is designed to serve as a backbone collection system, accepting flows from local collection systems, operated by member agencies, and transmitting such waste to appropriate regional treatment plants. The City of Chino has drafted a proposed sewer service area map for the project site (Exhibit 5.12-3). The City’s system will feed into IEUA’s regional wastewater system.
Sanitary Sewer Plan
The City of Chino receives portions of the regional Santa Ana River Interceptor Sewer Line (SARI) Project. The purpose of the SARI System is to transport groundwater of high salt, nitrate, and trichloroethylene concentration in the upper Santa Ana watershed to Orange County Sanitation District for primary sewage treatment and offshore disposal. Within the city, The western branch of the SARI line runs west along Kimball Avenue from an existing desalter plant down El Prado Road, at Euclid Avenue, and connects with the eastern branch, traveling down Pine Avenue, on its way south to the Orange County Sanitation District. Planned relocation of a portion of the SARI line directly above Prado Dam is to begin in summer 2002. The relocation is in response to the planned raising of Prado Dam. The proposed “plan area” will not affect this relocation plan.

Planned Facilities

The City of Chino, in anticipation of annexation of Subarea 2, has drafted a preliminary Sewer Master Plan for Subarea 2. The report outlines all planned sewer infrastructure additions, based on flow rates and growth projections, including estimated costs for construction, to accommodate the proposed plan area.

The IEUA currently operates a wastewater treatment facility, Regional Plant #2 (RP-2), along El Prado Road near its intersection with Pine Avenue in Chino Subarea 1. Due to the age of RP-2, its location below the Prado Dam 566-foot “take-line,” and site limitations for future expansion, this facility is being phased out in-lieu of a new facility. The IEUA has acquired land at the southeast corner of Kimball Avenue and El Prado Road for a regional wastewater treatment plant that is now under construction, Regional Plant #5 (RP-5). RP-5 will be required to be built and operational by December of 2003; however, IEUA has plans to have the plant on-line by July 2002. The first phase capacity of the plant will be 12 million gallons per day (MGD), while ultimate capacity is planned to be 46-48 MGD. RP-5 will handle all liquid wastes now treated at RP-2 and a portion of the solid wastes from the Carbon Canyon treatment plant, located at Chino Hills Parkway and El Prado Road.

Currently, the IEUA is completing the interconnection of all four of its treatment facilities in or affecting the City of Chino’s wastewater collection system: Regional Plant #1 (RP-1); Regional Plant #2 (RP-2); Regional Plant #5 (RP-5); and Carbon Canyon Water Reclamation Facility (CCWRF). The effluent of RP-1 and RP-2 is currently discharged into Chino Creek near RP-1 to Prado Lake in the southwest portion of the plan area. The existing discharge pipeline from RP-1 to Prado Lake (RP-1 outfall) is located within Subarea 2. The RP-1 outfall will be connected with a 20” main to the discharge pipelines on El Prado Road that connect RP-2 and CCWRF (see Exhibit 5.12-2). After RP-2 is phased out, this pipeline will be connected to RP-5. This interconnection offers the possibility to...
supply recycled water in Subarea 2 from all four sources and from two directions, from the north (RP-1 and RP-4) and from the west (RP-2, RP-5, and CCWRF).

**Thresholds of Significance**

A project is considered to have a significant impact on wastewater service if existing or planned facilities and supplies are not adequate to serve proposed land uses or existing wastewater service is significantly disrupted.

**Project Impacts**

Increases in plan area population and commercial and industrial uses will increase wastewater treatment capacity demands upon IEUA treatment facilities. IEUA utilizes generation factors for projecting wastewater generation based upon land use. Based on unit wastewater flow generation factors used in the City’s Sewer Master Plan, it is estimated that wastewater will increase by 4,816,920 gallons per day upon buildout of the plan area. See Table 5.12-7 for an estimate of wastewater generation by land use category.

**TABLE 5.12-7**

**WASTE WATER GENERATION AT PLAN BUILDTOUT**

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Units (population/acre)</th>
<th>Generation Factor</th>
<th>Increased Wastewater Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>33,249 people</td>
<td>80 gallons/day/person</td>
<td>2,659,920 gpd/person</td>
</tr>
<tr>
<td>Commercial (neighborhood commercial, regional commercial, airport related business park, airport related hotel, commercial (airport &amp; mixed use), office (regional &amp; airport mixed use))</td>
<td>228 acres</td>
<td>2,500 gallons/day/acre</td>
<td>570,000 gpd/acre</td>
</tr>
<tr>
<td>Industrial</td>
<td>357 acres</td>
<td>1,000 gallons/day/acre</td>
<td>357,000 gpd/acre</td>
</tr>
<tr>
<td>Public facilities (airport, women’s correctional facility, schools)</td>
<td>446 acres</td>
<td>2,500 gallons/day/acre</td>
<td>1,115,000 gpd/acre</td>
</tr>
<tr>
<td>Parks (local &amp; community)</td>
<td>115 acres</td>
<td>100 gallons/day/acre</td>
<td>115,000 gpd/acre</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>—</td>
<td>—</td>
<td><strong>4,816,920 gpd/acre</strong></td>
</tr>
</tbody>
</table>


IEUA will continue to expand their treatment capacity consistent with growth projections, associated increased demand, and funding mechanisms. The increased use of reclaimed water will decrease the
need for treatment capacity and provide a beneficial reuse of water resources. In conclusion, sufficient capacity has been allocated by IEUA to serve the plan area through buildout. Therefore, no significant impacts to wastewater treatment and disposal will occur.

**Cumulative Impacts**

IEUA provides service to a broad geographic area covering seven cities and a portion of the Chino Basin Dairy Area. As development occurs within the Agency’s service area, it makes additional funds available to construct necessary facilities to provide for the growth. The Agency has allocated sufficient sewage disposal capacity in RP-5 to serve additional sewage generated within the City of Chino, throughout buildout of the plan area. Therefore, no significant cumulative impacts on wastewater treatment facilities is anticipated.

**Mitigation**

IEUA has indicated it will provide sufficient sewage disposal capacity in RP-5 to serve additional sewage generated within the City of Chino, and proposed plan area. The City will coordinate with the IEUA to ensure that adequate wastewater facilities are available to meet future growth. Project design will be reviewed by the City, prior to project approval, to ensure that sufficient infrastructure and capacity are available.

**U-WW-1** The City shall assure that required backbone sewer lines, or an equivalent system recommended by the City Engineer are implemented pursuant to the Sewer Master Plan.

**U-WW-2** Developers shall pay required sewage facilities development fees and system collection fees to cover City costs to construct master planned sewer mains.

**Levels of Significance After Mitigation**

With the implementation of the preceding mitigation measures and the operational and funding mechanisms established by the Inland Empire Utilities Agency, no significant wastewater impacts are anticipated.

**5.12.3 ELECTRICITY**

**Existing Conditions**

The plan area will be provided electrical service by Southern California Edison (SCE). Power distribution lines within the vicinity of Chino Subarea 2 include twelve (12) kilovolt (kv) lines in the following roadways: Kimball Avenue, Pomona Rincon Road, SR 71 Corona Expressway, and Pine Avenue. A major east-west power line corridor, including 2-200kv lines plus 2-500kv lines,
transverse Subarea 2 in the vicinity of Pine Avenue. A 66 kv line runs east west through the site below Chino-Corona Road, and another 66 kv line runs along Euclid Avenue between Kimball and Bickmore Avenue. The substation within closest proximity to the project area is SCE’s “bulk power” substation, located at Edison and Benson Avenue. There are many additional substations located throughout the City of Chino.

Power from the transmission grid is delivered to the City of Chino by way of the Chino “bulk power” substation. At the “bulk power” station, power is dampened and converted from 220 kv to 66kv. From there, the Chino substation delivers 770,000 kilowatts of power to its service radius, of which the project site is included. The substation’s maximum load capacity is currently 840,000 kilowatts. Additional power transmission capability, served by a new substation and planned for construction by June 2001, will considerably bolster existing transmission capacity. This “bulk power” substation is to be constructed within the Mira Loma facility. It will connect with the other 66 kv substations, providing added security during emergency shut downs of any one of the substations and expanding SCE’s service capability in the project area. Additionally, there are plans to upgrade the Chino “bulk power” station by bolstering the transformer bank and adding new 12 kv circuits to accommodate new developments.

SCE has been hard pressed to meet current electrical demands in California, due to high wholesale prices of electricity and past retail price caps brought about by deregulation in 1996. The electrical crisis, though not a result of a physical shortage in electrical resources, but rather a price gouge affecting buying capability of California utility companies, may continue to result in “rolling” blackouts throughout California, becoming intensified in summer 2001.

**Threshold of Significance**

Southern California Edison Company (SCE) determines, in their estimation, if the demand for electricity generated by the proposed project can be adequately fulfilled. Project impacts are considered significant if the proposed project’s demand for electricity exceeds SCE’s ability to provide for the demand.

**Project Impacts**

Buildout of the proposed project will result in a total electrical demand increase of 164,547,624 mega watts per hour per year (MW/hr/yr). Approximately 33 percent, or 55,017,390 MW/hr/yr will be absorbed by residential uses; 27 percent, or 29,836,537 MW/hr/yr by industrial uses; and 40 percent, or 109,530,234 MG/hr/yr, by commercial uses. Electrical demand by open space use is not quantifiable at this time due to lack of specific square footage data. Such public uses, however, likely pose a nominal demand on electricity. The increases level of service to the project area will require
the implementation of new service lines and support facilities. However, electrical demand and electrical provision to the plan area will be phased over 20 years.

The City will provide Southern California Edison with copies of any City Council-adopted plans for Subarea 2, and will coordinate with Southern California Edison Company to identify specific facilities required related to costs, and responsibility for finalizing of services. Further, the developer will be required to consult with Southern California Edison to ensure that adequate new facilities are provided with construction of each project. New development will also be required to be in conformance with Title 24 of the California Code of Regulations regarding efficient use of energy resources, or other State and/or City Regulations, which may take precedence at the time of approval of individual projects.

SCE demonstrates confidence that it can meet the phased electrical demands, both short-term and long-term, brought about by the proposed project. New services are provided by the public utility on the basis of need. Major infrastructure is paid for by user fees collected for providing the service.

New local extensions and connections are paid for by project developers. The planning process identifies needed upgrades and ensures their provision. Therefore, implementation and long-term buildout of the proposed plan will not result in significant adverse impacts related to electricity.

**Cumulative Impacts**

At completion, the proposed project will produce a high demand on the electrical supply and distribution capabilities. Southern California Edison (SCE) has indicated its ability to meet this high demand, provided that proper infrastructure is installed in the project area. Yet, given the current electrical energy shortfall in California and the western United States due to high wholesale costs of electricity brought about by deregulation in 1996, it is uncertain that electrical supplies will be sufficient to meet future growth demand. Therefore, the project may contribute to significant longterm impacts on electrical energy supplies.

**Mitigation Measures**

U-E-1  Energy efficient lighting and natural lighting should be encouraged and utilized where practical.

**Levels of Significance after Development**

Implementation and buildout of the project area may contribute to significant cumulative impacts on SCE’s ability to generate electricity, depending on the future state of the electricity market.

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5.12.4 NATURAL GAS

Existing Conditions

The City of Chino receives natural gas and services from The Southern California Gas Company (SCGC). SCGC’s planning office in Redlands, California maintains information on existing lines; forecasts future needs, and analyzes the size and location of future service pipelines. Currently, limited gas service currently is available to the project area. SCGC is under the regulation of the California Public Utilities Commission, and can also be affected by the actions of federal regulatory agencies. If any of these agencies were to take any action affecting the gas supply, or the conditions under which service is available, gas service will be provided in accordance with revised conditions.

SCGC receives its supplies from production fields in southwestern United States, the Rocky Mountains, and western Canada. These supplies are expected to be secure and meet California demand through 2010. The following table reflects typical gas demand for residential, commercial, industrial, and public/quasi-public uses.

<table>
<thead>
<tr>
<th>Type of Use</th>
<th>(System Area Average/Use Per Meter)/Yearly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Family</td>
<td>799 therms/year</td>
</tr>
<tr>
<td>Multi-Family 2 to 4 units</td>
<td>482 therms/dwelling unit/year</td>
</tr>
<tr>
<td>Multi-Family 5 or more units</td>
<td>483 therms/dwelling unit/year</td>
</tr>
<tr>
<td>Commercial</td>
<td>348 therms/1,000 sq. ft./year</td>
</tr>
<tr>
<td>Industrial</td>
<td>396 therms/1,000 sq. ft./year</td>
</tr>
<tr>
<td>Public/Quasi-Public</td>
<td>348 therms/1,000 sq. ft./year</td>
</tr>
</tbody>
</table>

*One therm is roughly equal to 100 cubic feet of gas

The demand for commercial and industrial uses can vary widely due to building size and use. SCGC has demand side management programs available for providing commercial/industrial customers with the most effective applications of energy conservation techniques for each particular project.

Thresholds of Significance

A project is considered to have a significant impact on natural gas service if existing or future planned facilities and supplies are not adequate to serve proposed land uses or existing natural gas service is notably disrupted.
Project Impacts

The Gas Company is a regional supplier of natural gas. It has stated that service will be provided as needed.\(^6\) No significant impact on the environment is anticipated with the provision of natural gas supplies to the project. As gas needs vary with the type of building constructed, service will be adjusted to meet those appropriate needs. Natural gas demand at buildout of the proposed plan is estimated at approximately 3.9 million cubic feet annually.

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Demand Factor</th>
<th>Unit Increase</th>
<th>Annual Gas Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential(^a)</td>
<td>584 therms/year/unit</td>
<td>9,779 units</td>
<td>5,710,936 therms/year</td>
</tr>
<tr>
<td>Commercial</td>
<td>348 therms/year/sq. ft.</td>
<td>3,240,174 sq. ft.</td>
<td>1,127,580,552 therms/year</td>
</tr>
<tr>
<td>Industrial</td>
<td>396 therms/year/sq. ft.</td>
<td>6,998,571 sq. ft.</td>
<td>2,771,434,116 therms/year</td>
</tr>
<tr>
<td>Public/Quasi-Public</td>
<td>348 therms/year/sq. ft.</td>
<td>66,499 sq. ft.</td>
<td>23,141,652 therms/year</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>—</td>
<td>—</td>
<td><strong>3,927,867,256 therms/year</strong></td>
</tr>
</tbody>
</table>

\(^a\)584 therms/year represents an average for all residential units.
\(^b\)One therm is roughly equal to 100 cubic feet of gas.

The City of Chino will provide population projections to The Gas Company to ensure that they have adequate information upon which to project natural gas demands. The City and future developers within the plan area will also coordinate with The Gas Company to ensure adequate services and facilities are available to provide for future development.

Cumulative Impacts

At buildout of the plan area and other cumulative projects, significant cumulative demands will be placed on natural gas resources. The Gas Company, however, anticipates it will be able to provide the resource and facilities necessary to meet these additional demands. Therefore, no adverse cumulative impacts to natural gas supply and distribution are expected.

Mitigation Measures

No mitigation measures are necessary.

Levels of Significance after Mitigation

Significant impacts are not anticipated.

5.12.5 WASTE MANAGEMENT

This section separately discusses waste management from the standpoint of both municipal Solid Waste collection and disposal, and Dairy Waste Management.

**Solid Waste**

**Existing Conditions**

Residential solid waste collection and disposal in the plan area currently is based on a permit system with approximately 5 private haulers providing service to homeowners. Following annexation of the project area by the City of Chino, there will be a 5-year phase out period during which time the City’s franchised hauler, Waste Management, will take over service to the area. Waste Management disposes of City waste at their El Sobrante Landfill, in unincorporated Riverside County, roughly 8 miles south of Corona. The landfill has a lifespan of 50-70 years at an average daily collection rate of 10,000 tons per day of waste. Waste Management, under a contractual agreement with the City of Chino, assures adequate capacity for waste disposal.

The City of Chino presently generates approximately 160,000,000 lbs. of solid waste per year (438,356 lbs. Per day), of which 42 percent (672,000,000 lbs/yr) comes from residential uses and 58 percent (92,800,000 lbs/yr) from commercial uses.

The City’s implementation of AB 939 in 1999, resulted in a stepped-up automated collection system, supplying each residence with three 96-gallon containers for trash, yard waste, and recyclables, respectively, in an effort to reduce overall solid waste production. During the first year of implementation, the City reduced its waste production by 48 percent. Statistics for waste generation during the year 2000 have not yet been provided by the State if California, though the City believes it has met the State’s requirement for a 50 percent reduction in waste generation.

**Threshold of Significance**

The proposed project would significantly impact solid waste collection and disposal if its solid waste generation were to exceed the capacity of designated landfills.

**Project Impacts**

It is estimated that buildout of the proposed plan will result in the production of approximately 58,603,023 pounds (lbs) per day (29,302 tons) of residential, commercial, industrial, and public waste (Table 5.12-10). Waste Management, the sole provider of waste collection and disposal to the City,

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7 Source: Phone interview with Rod Butler, City of Chino, Solid Waste Manager, March 2001.
indicates that the proposed Plan will not adversely affect El Sobrante Landfill’s disposal capacity. The landfill can accommodate growth in waste generation for the next 50-70 years and owns 6 other landfills that could offer services as well.

In reviewing subsequent development projects within the plan area, the city will continue to implement solid waste reduction procedures pursuant of AB 939.

### TABLE 5.12-10
SOLID WASTE GENERATION AT BUILDOUT OF PROPOSED PLAN AREA

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Solid Waste Generation Factor by Area</th>
<th>Proposed Land Use</th>
<th>Solid Waste Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>8 lbs/day/unit</td>
<td>9,779 units</td>
<td>78,232 lbs/day</td>
</tr>
<tr>
<td>Commercial</td>
<td>5 lbs/day/sq. ft.</td>
<td>3,240,174 sq. ft.</td>
<td>16,200,870 lbs/day</td>
</tr>
<tr>
<td>Industrial</td>
<td>6 lbs/day/sq. ft.</td>
<td>6,998,571 sq. ft.</td>
<td>41,991,426 lbs/day</td>
</tr>
<tr>
<td>Public</td>
<td>5 lbs/day/sq. ft.</td>
<td>66,499 sq. ft.</td>
<td>332,495 lbs/day</td>
</tr>
<tr>
<td></td>
<td><strong>Total Generation</strong></td>
<td></td>
<td>58,603,023 lbs/day</td>
</tr>
</tbody>
</table>

**Cumulative Impacts**

Buildout of cumulative projects within and outside of the plan area will increase daily solid waste production and place demands upon Waste Management’s landfills. The City of Chino had implemented waste recycling consistent with AB 939 requirements, and such requirements will be applied to the plan. Such requirements will be applied to the plan area to reduce its incremental contributions to solid waste generation. Increased solid waste generation from cumulative sources is not projected to exceed the tonnage ceiling of El Sobrante Landfill, and consequently, cumulative impacts are not significant.

**Mitigation Measures**

Although no significant impacts to solid waste disposal are anticipated as a part of the project, the following measure is recommended to minimize waste disposal and assist the City of Chino in compliance with AB 939:

**U-SW-1** Future developments should have outside building space to accommodate the storage of 3-96-gallon containers. This system reduces waste production by encouraging recycling of material.

**Level of Significance after Mitigation**

Less than significant impacts to solid waste disposal and treatment will result from the project.
Dairy Waste

Existing Conditions

Waste Production and Management

Currently there are three options within the Chino Basin Dairy Area (CBDA) for the disposal of manure. These options include agricultural application, transportation outside of the CBDA to the San Joaquin, Blythe, or Imperial Valleys, or composting. The application of manure on agricultural lands is becoming increasingly difficult due to the lack of available lands and increasing regulatory constraints. While there are several dairy operators that contract to have feed hauled in and manure hauled out, this is a costly practice, and therefore not an attractive alternative for many dairy operators. The third option is composting; there are approximately 9 composting facilities operating within the CBDA. However, these facilities with a total capacity of 674,000 tons per year cannot meet the full demands of the dairy operators.

The CBDA is home to one of the largest dairy herd populations in the world with a current dairy cow population of approximately 360,000, which generates over 1 million tons of manure annually. In contrast, a decade earlier it was reported that the CBDA was home to 289,600 cows producing 460,000 tons of manure annually. While a decade ago it was reported that there was 16,500 tons of manure stockpiled, presently it is reported that there is now more than 2-million tons of manure stockpiled. This dramatic increase is a factor of two elements (1) agricultural land used for manure disposal is being converted to urban uses, and (2) to remain competitive, individual dairy herd sizes are increasing while there is an actual decline in the number of dairy farms. The result is that while an unprecedented amount of manure is being generated in the CBDA, there is less available land to spread the manure produced from the increased dairy cow population.

The rising land values coupled with the mechanized feeding and milking practices have favored the managing of larger herd populations on smaller acreage. The conversion of agricultural lands to urban uses has had a dual effect upon dairy operators. Less land is now available to dispose of manure and recent urbanization upslope of the CBDA has created drainage problems for the dairies. As urbanization has occurred the CBDA has not made flood control and containment improvements. The consequence was that the increase in rainfall surface runoff from the urbanized areas led to routine flooding in the dairy areas located on the CBDA/urbanized interface. Flooding is frequent during mild storms and extensive flooding is reported to occur during less frequent but more severe storms. These two impacts, waste containment and inadequate drainage, result in further degradations in both surface and groundwater quality.

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8 Manure Management Strategy Report for the Chino Basin, Santa Ana River Watershed; SARWG (9/99)
9 Subarea 1 Chino Sphere of Influence – Chino Valley Dairy Preserve Project Area Description Study and Environmental Setting; City of Chino Community Development Department (10/95)
### TABLE 5.12-11
AGGREGATE MANURE PRODUCTION IN CHINO BASIN

<table>
<thead>
<tr>
<th></th>
<th>Milk Cows</th>
<th>Support Stock (Calves And Heifers)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Animals</td>
<td>280,000</td>
<td>80,000</td>
<td>360,000</td>
</tr>
<tr>
<td>Manure excreted at 14% solids</td>
<td>6,132,000</td>
<td>511,200</td>
<td>6,643,400</td>
</tr>
<tr>
<td>(Tons/year)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corral Manure at 67% solids</td>
<td>1,282,400</td>
<td>107,200</td>
<td>1,389,600</td>
</tr>
<tr>
<td>(Tons/year)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collectable Corral Manure at 67% solids (Tons/year)</td>
<td>1,153,600</td>
<td>96,800</td>
<td>1,250,000</td>
</tr>
<tr>
<td>Collectable Dry Manure at 100% solids (Tons/year)</td>
<td>793,800</td>
<td>64,800</td>
<td>840,000</td>
</tr>
<tr>
<td>Source: SARWG, 1999</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to data compiled by the Milk Producer’s Council for the City of Chino, the 31 dairies operating within the proposed plan area produce approximately 263,540 dry tons of manure annually.\(^{10}\) This represents almost one-third (1/3) of the total collectable dry manure tonnage with the CBDA.

**Total Dissolved Solids (TDS) and Nitrogen (Salt) Management in the Chino Basin**

The deterioration of the water quality in the Chino Basin and the Santa Ana River has been attributed to the increase in TDS (primarily magnesium and calcium) and nitrate. TDS are mineral salts dissolved in the water that concentrate as the water is reused. Within the CBDA, an increase in TDS in groundwater is a result of the increased intensity of agricultural and urban activities.

It has been estimated by the Santa Ana Regional Water Quality Control Board (SARWQCB) that over 13 million tons of manure have been applied to the Chino Basin since the mid 1950’s when dairy farmers relocated to the basin. As a result of this 13 million tons of manure spread across the CBDA, 1.4 millions tons of salt have reached, or will reach groundwater. Salt may have an adverse effect upon human health, increase costs of urban infrastructure and facilities, and increase the cost and decrease the effectiveness of reclaiming wastewater. It is estimated by the SARWQCB that the current application of manure and wash water to land in the Chino Basin is resulting in 34,000 tons of salt that will reach the groundwater each year.\(^{11}\) Of that 34,000 tons per year, about 30,000 tons per year is from the application of manure and the remaining 4,200 tons per year is from the discharge of wash water. In addition, the Board staff has estimated that approximately an additional 3,800 tons of salt will reach the groundwater each year.

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\(^{10}\) Source: Dairy Information for The Chino Preserve, City of Chino; compiled from Milk Producer’s Council 1998 reporting list

\(^{11}\) General Waste Discharge Requirements for Concentrated Animal Feeding Operations within the Santa Ana Region, Order 99-11, NPDES No. CAG018001; SARWQCB (8/99)
salt are discharged to groundwater through the percolation of rainfall runoff from corrals and drainage of manure stockpiles.

The Optimum Basin Management Plan (OBMP),\textsuperscript{12} prepared under the auspices of the Chino Basin Watermaster, provides a strategy to minimize the levels of TDS and nitrate in the basin. Recognizing the high levels of TDS and nitrates attributed to the functions of dairy operations, the OBMP calls for the minimization of TDS and nitrogen additions to fertilizers and dairy wastes, desalting the groundwater in the southern portion of the Basin, and the artificial recharge of stormwater.

Pursuant to the OBMP and the Santa Ana Watershed Project Authority (SAWPA), a desalter facility has been constructed in Chino Subarea 1 at Kimball and Euclid Avenues, very near the proposed project. The facility’s function is to remove and treat groundwater high in TDS and salt content, thereby alleviating a portion of the salt burden that is presently being discharged into the basin’s groundwater by the dairies and other sources. Additional desalter facilities have been developed within the Chino Basin, and more are planned by SAWPA.

\textbf{Composting Facilities}

One method of reliably recycling and processing dairy manure is through composting. There are nine composting facilities within the CBDA with an annual permitted capacity of 674,000 tons per year as of 1997 (see Table 5.12-8). However, due to the inability to identify adequate markets for the recycled manure, the only facility accepting manure presently is the IEUA Co-Composting facility, along Chino-Corona road in the proposed plan area.

\textit{Inland Empire Utilities Agency Co-Composting Facility}

The Inland Empire Utilities Agency (IEUA) operates a Co-Composting facility for both dairy manure and wastewater sludge within the proposed plan area. The total permitted capacity of the IEUA facility is 400,000 wet tons/year and the estimated annual operating tonnage of manure (1997) is 80,400 dry tons/year and 120,000 wet tons/year (see Table 5.12-8). During its several years of operation (since June 1995) the facility has had difficulty in marketing soil amendment products due to the high salinity of the compost. This is true of both the 100% manure based compost and the 12:1 ratio of manure to sludge blend.

Most soil amendments containing manure, biosolids, or other sources of organic nutrients are blended with a bulking agent to proportionately reduce the salt content. Such blendable products are more marketable in the wholesale and retail fertilizer markets. However at present, the Co-Composting

\textsuperscript{12} Optimum Basin Management Program Phase 1 Report; prepared for Chino Basin Watermaster (8/19/99)
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facility does not use bulking materials. Table 5.12-12 below details the capacities of the composting facilities within the Chino area.

### TABLE 5.12-12
**CHINO AREA COMPOSTING FACILITIES**

<table>
<thead>
<tr>
<th>Compost Facility</th>
<th>Permitted Capacity</th>
<th>Estimated Annual Tonnage Of Manure (1997)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wet tons per year</td>
<td>Dry tons per year</td>
</tr>
<tr>
<td>IEUA – Eko Compost and Earthwise Organics</td>
<td>400,000</td>
<td>80,400</td>
</tr>
<tr>
<td>Kellogg Supply</td>
<td>112,500</td>
<td>13,400</td>
</tr>
<tr>
<td>Farmer’s Fertilizer</td>
<td>45,000</td>
<td>12,060</td>
</tr>
<tr>
<td>Scott’s Hyponex</td>
<td>18,000</td>
<td>43,550</td>
</tr>
<tr>
<td>Red Star</td>
<td>45,000</td>
<td>6,700</td>
</tr>
<tr>
<td>Partida Fertilizer</td>
<td>30,000</td>
<td>20,1000</td>
</tr>
<tr>
<td>Mushhegain</td>
<td>19,000</td>
<td>12,060</td>
</tr>
<tr>
<td>Wolfinbarger</td>
<td>3,000</td>
<td>402</td>
</tr>
<tr>
<td>Corona Fertilizer</td>
<td>1,500</td>
<td>—</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>674,000</strong></td>
<td><strong>188,672</strong></td>
</tr>
</tbody>
</table>

Source: SARWG, 1999

IEUA is conducting a feasibility study and developing a business plan for relocating the existing Co-Composting Facility. The proposed Organics Management Facilities will be located at various sites within the Chino Basin. One proposed site is within the CIM property north of Kimball Avenue and east of RP-5. This concept presents an opportunity to develop ‘state-of-the-art’ facilities for research and development of technologies and marketable products for bio-solids, dairy cow manure, green material and other organic waste material. Various options for a relocated Co-Composting Facility are under study, including replacing the existing facility, developing enclosed composting facilities, and utilizing biogas digesters and co-composting in an enclosed building. Co-Composting Facility relocation is part of a larger strategy to develop a comprehensive solution to the CBDA’s organic recycling needs and infrastructure. With the relocation of the Co-Composting Facility, there is the opportunity to blend waste to produce a product with a lower salt content that would be more marketable, thereby creating a demand for manure and an opportunity to recycle a portion of the dairy waste in a manner that would not be harmful to the basin’s groundwater.

**Vector Control**

A secondary impact of the application and stockpile of manure is the attraction of flies to these operations. The West Valley Mosquito and Vector Control District is the agency entrusted with the
control of flies. Of particular concern is that large numbers of flies can occur when control measures are not initiated. As development encroaches upon the agricultural borders, flies disperse into surrounding residential areas. The dispersal is usually limited to less than one-half mile in controlled situations; in uncontrolled situations, flies may travel up to a distance of two miles. However, proper composting has proven to be the most effective method of controlling immature flies in sources containing high volumes of organic materials.

While most dairy farmers stockpile varying amounts of manure on their property this practice is increasingly subject to regulations as set forth by the SARWQCB. Likewise, restrictions limit the amount of manure that can be applied to various types of land. As the dairy herd population increases and the amount of land available for proper composting decreases, the problem of managing dairy waste becomes amplified. The Co-Composting Facility alleviates a portion of the waste problem and its expansion as part of a larger Organics Management Center would aid in further reducing the manure stockpiles. Yet, much of the waste will still need to be hauled to other counties or disposed of in an alternative manner.

In the past, dairy operators have managed to control the fly populations with the application of adulticiding chemicals. However, the continued use of adulticiding chemicals has resulted in a minor to severe resistance in the adult fly populations. According to WVMVCD, to retain viable fly control, it is imperative that mechanical measures are primary and chemical controls are secondary.

In theory, the optimum fly control would be for manure and other vegetative waste to be properly composted and removed from the property on a weekly basis. If unacceptable volumes of flies were attracted to the manure, even if it were not producing flies, the immediate area would be adulticided. Maintaining a buffer zone between agricultural and non-agricultural areas would also lessen the impact of flies. However, presently there is a stockpile of approximately 2 million tons of manure and a lack of agricultural land to spread the manure. Moreover, removal of manure to areas outside of the CBDA is costly, at approximately $15.00/ton as compared to transportation costs of $2.50/ton for local disbursement.

**Policies and Regulations**

The Federal Clean Water Act (CWA) states that all concentrated animal feeding operations (CAFOs) are point sources and are subject to NPDES permitting requirements. All dairies within the CBDA have been designated as CAFOs and therefore are required to comply with NPDES.

Additionally, as required by the State’s Porter Cologne Water Pollution Control Act and CWA, dairy operators must retain any on-site storm runoff generated within the dairy up to a 25-year, 24-hour storm event. For the CBDA the 24-hour, 25-year storm is a storm with the intensity of 4.5 inches per
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day. Historically, the SARWQCB has regulated compliance of both Porter Cologne and CWA through the issuance of a general area-wide permit.

In August of 1999 the SARWQCB adopted additional manure handling regulations designed to impede manure waste from further degradation of the Santa Ana River. As adopted these regulations include the following:

- All dairies, heifer ranches, and calf nurseries in the Region were designated CAFOs

- All dairies are required to develop Engineered Waste Management Plans acceptable to the Executive Officer in accordance with established guidelines and construct containment structures to contain the 24-hour, 25-year storm. The cease and desist order was modified in February 2000 by the State RWQCB to enact the schedule for the waste management plans.

- Disposal of manure to land is prohibited except the use of manure on land that is currently being farmed (not pasture). This disposal must be in agriculturally recognized amounts and is contingent upon the installation of a new groundwater desalter in the basin.

- Removal of the approximately 2 million tons of manure stockpiled in the CBDA by December 31, 2001.

- Ship manure out of the basin within 180 days of scraping the corrals.

Manure Management Strategy

The problem of dairy waste management within the CBDA is multifaceted, with the need for timely solutions driven by factors such as the Water Board Order, the need to preserve and enhance water resources for beneficial use, the changing economics of dairying within the CBDA, and the transition to urban use.

In 1999, the Santa Ana Watershed Group (SARWG) prepared a Manure Management Strategy for the Chino Basin that outlined an approach to dairy waste management involving agency collaborations and broad initiatives. The Strategy suggested the following initiatives to address manure management in a comprehensive manner: 1) A CBDA-wide “Residuals Management Program”; 2) establishment of a National Center for Management of Organic Materials; 3) utilization of “Smart Growth”

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13 The CWA defines a CAFO as any AFO that has more than 1,000 animal units (i.e. dairy cattle are considered 1.4 animal units). Additionally, the CWA states that smaller facilities can be designated as CAFOs by a permitting authority (Regional Board) after considering certain criteria. These criteria include in part, the location of the AFO relative to surface waters, the slope, rainfall, and other factors that increase the likelihood of frequency of discharges and the impact of the aggregate amount of waste from any small operations in a watershed that exceed that of larger operations. The SARWQCB staff has determined that all dairies, heifer ranches, and calf nurseries in the Region meet one or more of these criteria, and therefore shall be designated a CAFO under the CWA.

14 Manure Management Strategy Report for the Chino Basin, Santa Ana River Watershed; SARWG (10/99)
principles in plans for the conversion of the CBDA; and 4) development of an agricultural, wildlife, wetlands and open space conservation program for the Lower CBDA.

Initiatives that have emerged include the proposed Organics Management Facilities, pilot programs to sewer the dairies, a planned SARI line relocation, support to dairies in on-site residuals management and stormwater containment, and the integration of Smart Growth principles in development plans for the transition area. The Strategy identified an orderly transition of the dairylands to urban use, rather than a precipitous one, as essential to the ability to successfully manage dairy wastes in the CBDA.

**Thresholds of Significance**

Specific thresholds to address the significance of a project’s impacts on dairy waste management have not been developed. CEQA Guidelines Environmental Checklist criteria applied to solid waste and wastewater treatment impacts are adapted as follows to apply to dairy wastes.

A project would be expected to have a potentially significant impact on dairy waste management if it would:

- Exceed the wastewater treatment requirements of the applicable Regional Water Quality Control Board;

- Result in non-compliance with federal, state and local statutes and regulations related to solid waste.

**Project Impacts**

The problems associated with stockpiled manure, high TDS and salts in groundwater, and degradation of surface waters from dairy runoff are existing conditions that have resulted in promulgation of regulations by the Regional Water Quality Control Board to protect water resources. In most respects, the proposed project represents a beneficial impact on waste management in that it provides an economic incentive to remove, recycle or otherwise dispose of manure within the basin. Deadlines for removal of stockpiled manure from the basin have been imposed irrespective of the proposed project. Various initiatives to respond to the challenges imposed by these deadlines have either been proposed or are underway, including the Organics Management Facilities and plans to sewer the dairies.

It has been suggested by the Chino Basin Watermaster that a rapid departure of the dairies in the CBDA would result in a rapid decline in groundwater production in the southern part of the Basin and a subsequent increase in poor quality water. The rising groundwater would have the potential to degrade the Santa Ana River. However, the conversion of the agricultural area in the southern part of

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15 Optimum Basin Management Program, Phase 1 Report; page 4-31; (8/19/99)
the Chino Basin to urban uses will occur over the next 20 years, and in the long term the waste management and water quality challenges associated with the dairies will go away.\textsuperscript{16} As implementation of the proposed development plan for The Preserve is anticipated to occur over approximately 20 years, the project is not anticipated to exacerbate the existing waste management impact associated with dairy use.

Urban and agricultural use conflicts are addressed in EIR Section 5.1, Land Use. Features of the proposed Specific Plan and mitigation measures to reduce nuisance aspects of such conflicts are included in that section.

**Cumulative Impacts**

The proposed project is not anticipated to contribute to cumulative impacts on dairy waste management. Requirements for manure removal and management have been imposed irrespective of the proposed project and other related projects.

**Mitigation Measures**

No mitigation measures are necessary.

**Level of Significance After Mitigation**

No significant dairy waste management impacts will occur from implementation of proposed project plans.

**5.12.6 TELECOMMUNICATIONS**

**Existing Conditions**

**Telephone**

Telephone service to The Preserve Specific Plan area can be provided by Verizon. The area would require the installation of cable wiring from a backbone facility out to the site.

**Cable Television**

Adelphia Communication Services provides cable television service, Internet services, and standard telephone service to the project area. These services are all delivered via a single broadband network

\textsuperscript{16} ibid OBMP; page 4-30
of coaxial and fiber-optic cable. The Preserve Specific Plan area would require the extension of cable wiring from a backbone facility out to the site either before or after construction of the project.

Funding of the regional telephone and cable television facilities is provided to the project by the Utility. The developer is responsible for the costs of extending utilities from the backbone facilities to the project site. Similarly, funding of the operations for general utilities is the responsibility of the individual utility through user charges.

Although connections to The Preserve Specific Plan area are not currently installed, the utility companies have indicated that they have the capability to provide the necessary services to the area. Generally, the necessary facilities are constructed either prior to or in parallel with the development projected.

**Threshold of Significance**

The proposed project would be considered to result in a significant impact relative to telecommunications if development of the Plan exceeds the existing or planned distribution and supply capabilities of telephone or cable television service providers who serve the plan area.

**Project Impacts**

**Telephone**

The proposed project would result in increased demand on the existing telephone service provider Verizon. Verizon has plans for locating future wire centers to distribute telephone services to customers in the plan area. Verizon plans its services provision to accommodate growth in service areas. Therefore, existing and planned distribution and supply of telephone service is expected to accommodate the proposed plan implementation and buildout.

**Cable Television**

The plan would most certainly pose the need for a new provision of cable service to the project area. Adelphia Communication Services is prepared to distribute cable service to the project area with buildout. Planned distribution and supply of cable services is expected to accommodate the proposed plan implementation and buildout. Therefore, project impact on cable services is not anticipated to be significant.
Cumulative Impacts

Buildout of the cumulative projects would result in additional demand relative to both telephone and cable television service provision in the areas of the cumulative projects. However, existing and planned service in these areas is expected to be sufficient by the service providers.

Mitigation Measures

No mitigation measures are proposed.

Level of Significance After Mitigation

Implementation and buildout of the proposed project is not expected to adversely impact telecommunications, therefore project related or cumulative impacts are not expected.