



Section 5.12

Utilities and Service Systems



Utilities and Service Systems

Section 5.12

This Section is based on reference information from utility and service agencies, and other reference sources; refer to Appendix 12.1, *Notice of Preparation*, and Appendix 12.6, *Public Services/Utilities Correspondence*. Public utility and service systems include water, wastewater, solid waste, electricity, and natural gas. This Section provides existing conditions and background information necessary to determine the Project's potential impacts. Mitigation measures are recommended to avoid or reduce potential impacts to less than significant levels.

5.12.1 WATER SUPPLY

5.12.1.1 PURPOSE

This section analyzes potential impacts to water supplies and distribution systems that may result from the implementation of the proposed General Plan Update. The purpose of this analysis is to document and describe the existing water supply, water consumption, and distribution infrastructure in the City of Artesia (City), and to evaluate impacts associated with the buildout of the proposed General Plan Update.

5.12.1.2 EXISTING REGULATORY SETTING

FEDERAL SAFE DRINKING WATER ACT OF 1974

SDWA authorizes the United States Environmental Protection Agency (US EPA) to set national health-based standards for drinking water to protect against both naturally-occurring and man-made contaminants that may be found in drinking water. U.S. EPA, states, and water systems then work together to make sure that these standards are met. Originally, SDWA focused primarily on treatment as the means of providing safe drinking water at the tap. The 1996 amendments greatly enhanced the existing law by recognizing source water protection, operator training, funding for water system improvements, and public information as important components of safe drinking water. This approach ensures the quality of drinking water by protecting it from source to tap.

URBAN WATER MANAGEMENT ACT

The Urban Water Management Plan Act was passed in 1983 and codified as California Water Code Sections 10610 through 10657. Since its passage in 1983, the Act has been amended on several occasions. In 2004, the Act was amended to require additional discussion of transfer and exchange opportunities, non-implemented demand management measures, and planned water supply projects. Most recently, in 2005, the Act was amended to require water use projections (required by California Water Code Section 10631) to include projected water use for single-family and multi-family residential housing needed for lower income households. In addition, Government Code Section 65589.7 was amended to require local governments to provide a copy of the adopted housing element to water and wastewater providers. The Act requires "every



urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually, to prepare and adopt, in accordance with prescribed requirements, an urban water management plan.” Urban water suppliers must file these plans with the California Department of Water Resources every five years describing and evaluating reasonable and practical efficient water uses, reclamation, and conservation activities. As required by the Memorandum of Understanding Regarding Urban Water Conservation in California and Assembly Bill 11X (1991), the 2005 amendment incorporated water conservation initiatives and a Water Shortage Contingency Plan.

SENATE BILLS 221 AND 610

Senate Bills 221 and 610 were signed into law in 2001 and took effect January 1, 2002. The two bills amended State law to better link information on water supply availability to certain land use decisions by cities and counties. The two companion bills provide a regulatory forum that requires more collaborative planning between local water suppliers and cities and counties. All SB 610 and 221 reports are generated and adopted by the public water supplier.

Senate Bill (SB) 610 requires a detailed report regarding water availability and planning for additional water supplies that is included with the environmental document for specified projects. All “projects” meeting any of the following criteria require the assessment:

- A proposed residential development of more than 500 dwelling units (DU);
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet (SF) of floor space;
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 SF of floor space;
- A proposed hotel or motel, or both, having more than 500 rooms;
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 SF of floor area;
- A mixed-use project that includes one or more of the projects specified in this subdivision; or
- A project that would demand an amount of water equivalent to or greater than the amount of water required by a 500-DU project.

While SB 610 primarily affects the Water Code, SB 221 principally applies to the Subdivision Map Act. The primary effect of SB 221 is to condition every tentative map for an applicable subdivision on the applicant by verifying that the public water supplier (PWS) has “sufficient water supply” available to serve it.



WATER CONSERVATION PROJECTS ACT

California's requirements for water conservation are codified in the Water Conservation Projects Act of 1985 (Water Code Sections 11950–11954), as reflected below:

11952(a) It is the intent of the Legislature in enacting this chapter to encourage local agencies and private enterprise to implement potential water conservation and reclamation projects....

5.12.1.3 EXISTING ENVIRONMENTAL SETTING

The City receives the majority of its water service from the Golden State Water Company (GSWC). More specifically, GSWC's Artesia System serves most residents in the City of Artesia.¹ The Artesia System's service area is divided into two systems: the Artesia System North Side (North Side) and the Artesia System South Side (South Side). The majority of the North Side aligns with the City of Artesia boundary.

In compliance with the Urban Water Management Plan Act, GSWC prepared the 2005 Urban Water Management Plan – Artesia (UWMP) (December 2005), which is a basis for the discussion presented below.

WATER SOURCES

The GSWC provides water to the City via the Artesia System North Side (North Side). GSWC currently obtains its water supply for the Artesia System from local groundwater, recycled water obtained through the Central Basin Municipal Water District (CBMWD), and imported water obtained from the CBMWD in conjunction with the City of Cerritos. CBMWD obtains its imported supply from the Metropolitan Water District of Southern California (MWD). Additionally, the Artesia System has a connection with GSWC's own Orange County System, which also relies on both local groundwater and imported water obtained from MWD.

Artesia System

Table 5.12-1, *Current Artesia System Water Sources and Capacities*, presents the System's available water supply and indicates the current water supplies available to GSWC for the Artesia System total 6,297 acre-feet per year (AFY). The majority (67 percent) of the available water supply for the Artesia System is groundwater. Imported water sources account for approximately 31 percent of the available water supplies, with the remainder, 2.0 percent, provided by recycled water.

¹ The Artesia System also serves most residents in the City of Hawaiian Gardens and portions of the City of Cerritos, City of Lakewood, and City of Long Beach.



**Table 5.12-1
Current (2005) Artesia System Water Sources and Supplies**

Source	Acre Feet Per Year	Percent
Imported	1,952	31%
Groundwater	4,219	67%
Recycled	126	2%
Total	6,297	100%
Source: Written Correspondence: Golden State Water Company, Mr. Ernest A. Gisler, P.E., Planning Manager, May 27, 2008.		

Table 5.12-2, *Current Artesia System Water Capacities and Demands*, presents the System’s current water capacities and indicates the current annual capacity is 6,297 ac-ft/yr. The daily capacity (average) and peak capacity (maximum) are 8.69 cfs and 7.87 MGD, respectively.

**Table 5.12-2
Current Artesia System Water Capacities and Demand**

Description	Capacities
Annual Capacity (Acre-Feet Per Year)	6,297
Daily Capacity - Average Day (Cubic Feet Per Second)	8.69
Peak Capacity - Maximum Day (Million Gallons Daily)	7.87
Source: Written Communication: Mr. Ernest A. Gisler, P.E., Planning Manager, Golden State Water Company, May 27, 2008.	

City of Artesia

Artesia is a subset of the areas served by GSWC’s Artesia System. The City boundary aligns closely with the North Side of GSWC’s Artesia System. Table 5.12-3, *2005 Artesia System (North Side) Water Capacities*, presents the North Side’s 2005 water capacity and indicates the 2005 annual capacity was 2,337 ac-ft/yr. The daily capacity (average) and peak capacity (maximum) were 3.23 cfs and 2.9 MGD, respectively.

**Table 5.12-3
2005 Artesia System (North Side) Water Capacities**

Description	Quantity
Annual Capacity (Acre-Feet Per Year)	2,337
Daily Capacity - Average Day (Cubic Feet Per Second)	3.23
Peak Capacity - Maximum Day (Million Gallons Daily)	2.9
Source: Written Communication: Mr. Mark W. Insko, P.E., Civil Engineer, Golden State Water Company, April 9, 2010.	



IMPORTED WATER

Imported water ultimately comes from MWD through connections via the CBMWD in the City of Cerritos. There are two connection lines to CBMWD in the City of Cerritos, each which provide a current capacity flow of 1,500 gpm to the GSWC Artesia System. In 2005, imported water sources accounted for approximately 31 percent of the Artesia System's available water supply; refer to [Table 5.12-1](#).

RECYCLED WATER

The Artesia System currently receives recycled water from CBMWD. Wastewater in the Artesia System is transported to Los Angeles County Sanitation Districts' (LACSD) Los Coyotes Water Reclamation Plant (WRP) in Cerritos and San Jose Creek WRP in Whittier for treatment. The treated water is sent to CBMWD's Central Basin Recycled Water Project, which then distributes the water to CBMWD's customers (i.e., GSWC). Recycled water received through this source is used for irrigation and commercial/industrial applications throughout the Artesia System service area. In 2005, recycled water sources accounted for approximately 2.0 percent of the Artesia System's available water supply; refer to [Table 5.12-1](#). At present, the City of Artesia does not use recycled water.

GROUNDWATER

The Central Basin Pressure Area underlies the City with Recent Alluvium covering most of this basin, reaching a maximum coverage depth of 200 feet. Groundwater flows generally in a southwesterly direction and water tables have been measured as shallow as ten feet below ground level within the City.

The Artesia System is supplied by six wells in the Central Basin of the Coastal Plain of Los Angeles. The Basin is divided into four areas: Los Angeles Forebay; Montebello Forebay; Whittier area; and the Central Basin Pressure Area. The Montebello Forebay, which extends south from the Whittier Narrows, is considered the most productive of these extraction zones.

Groundwater is currently pumped from a total of six active wells in the Central Basin. These wells have a current total active capacity of 5,570 AF/Y. Between 2000 and 2004, the actual water production from these active wells averaged 4,874 AF/Y.² Groundwater accounts for the majority (approximately 67 percent) of the Artesia System's available water supply, as of 2005.

Specifically, within the City of Artesia, GSWC currently operates two groundwater wells. The design capacities of the two groundwater wells total 1,800 gallons per minute. One well is treated for iron and manganese removal; the other well requires no treatment.

Groundwater recharge results from percolation of precipitation, stream flow, return flow (irrigation), spreading activity at recharge grounds, and injection of imported water into the Alamitos Barrier Project (seawater intrusion barrier). Natural recharge occurs in the Forebay

² CH2MHILL, *2005 Urban Water Management Plan – Artesia*, December 2005, Page 3-2.



areas of the Central Basin due to prevalent silty permeable soils and suitable hydrological conditions. The total projected storage capacity for the Central Basin is 13.8 million AFY.

The Artesia System draws groundwater, as a part of the Central and West Basin Water Replenishment District. The Central Basin’s adjudication limit for groundwater extraction across the entire basin is 217,367 AFY.³ The Central Basin Judgment limits the amount of groundwater each party can extract annually (i.e., the Allowed Pumping Allocation, or APA). GSWC’s APA of 16,439 AFY is shared between all of the systems that extract groundwater from the Central Basin.

WATER DEMAND

Table 3-1, *Existing Land Uses*, outlines the City’s existing land uses and indicates approximately 4,610 DU and 2.5 million square feet of non-residential land uses currently exist within the City. The water demand associated with these existing land uses is approximately 6,391 AFY; refer to Table 5.12-4, *Existing Water Demand*.

**Table 5.12-4
Existing Water Demand**

Land Use	Demand Factor	Existing Conditions			Water Demand (Acre-Feet Per Year)
		DU	Acre	Square Feet	
Residential					
Low Density Residential	0.374101	3,018			1,129.04
High Density Residential	2.789986	1,592			4,441.66
<i>Subtotal Residential</i>		4,610			5,571
Non-Residential					
Commercial General	0.000119			1,777,737	211.55
Institutional	0.000108			129,333	13.97
Light Industrial	0.000562			603,623	339.24
<i>Subtotal Non-Residential</i>				2,510,693	565
Open Space/Parks	10.5179283		24.31	0	256
Total		4,610	24.31	2,510,693	6,391

Table 5.1-2, *1993 General Plan Buildout Summary*, outlines the City’s designated land uses, at buildout of the currently adopted 1993 General Plan. As indicated in Table 5.1-2, the 1993 General Plan’s development potential at buildout is approximately 5,376 DU and 7.4 million square feet of non-residential land uses. The future water demand based on buildout of the 1993 General Plan would be approximately 8,682 AFY; refer to Table 5.12-5, *1993 General Plan Water Demand*.

³ Ibid., Page 3-4.



**Table 5.12-5
1993 General Plan Water Demand**

Land Use	Demand Factor	1993 General Plan			Water Demand (Acre-Feet Per Year)
		DU	Acre	Square Feet	
Residential					
Low Density Residential	0.374101	3,132			1,171.68
High Density Residential	2.789986	2,244			3,260.73
<i>Subtotal Residential</i>		5,376			7,432
Non-Residential					
Commercial General	0.000119			5,584,610	664.57
Office	0.000108			791,333	85.46
Institutional	0.000108			735,467	79.43
Light Industrial	0.000562			342,120	192.27
<i>Subtotal Non-Residential</i>				7,453,530	1,021.73
Open Space/Parks	10.5179283		21.7		228.24
Total		5,376	21.7	7,453,530	8,682

Reliability of Supply

As noted previously, the Artesia System receives its water supply from three sources: imported water; recycled water; and groundwater. The reliability of GSWC’s Artesia System is dependent on a variety of factors ranging from local precipitation and groundwater recharge, water conditions in northern California, changing population dynamics, adjudicated groundwater rights within the Central Basin, anticipated benefits from conjunctive use programs, protected status of imported water from MWD, and the continued availability of recycled water from local sources. Therefore, conditions in local and distant areas can affect the reliability of supplies.

Table 5.12-6, *Planned Artesia System Water Supplies*, presents the planned water supplies available to GSWC for the Artesia System that will meet their projected water demands through 2030. In order to meet projected water demand within the service area, GSWC is anticipated to increase its water supplies by approximately 12 percent by the year 2030. As indicated in Table 5.12-6, GSWC’s planned water supplies for the Artesia System are projected to total 7,469 AFY in 2030. The majority (60 percent) of the planned water supply for the Artesia System would be groundwater, which has been historically reliable source. Imported water sources would account for approximately 38 percent of the available water supplies, with the remainder, 2.0 percent, provided by recycled water. GSWC’s supply of available water to the Artesia System is expected to be 100 percent reliable through 2030.⁴ It is noted, the current connection capacity for imported water sources is significantly higher than the anticipated imported water demand.

⁴ CH2MHILL, *Urban Water Management Plan- Artesia System*, Page 3-7, December 2005.



**Table 5.12-6
Planned Artesia System Water Supplies**

Source	2010 (AFY)	2015 (AFY)	2020 (AFY)	2025 (AFY)	2030	
					(AFY)	Percent
Imported	2,320	2,459	2,590	2,726	2,849	38%
Groundwater	4,500	4,500	4,500	4,500	4,500	60%
Recycled	100	100	110	110	120	2%
Total	6,920	7,059	7,200	7,336	7,469	100%

Source: CH2MHILL, 2005 Urban Water Management Plan – Artesia Table 3-1 (Current and Planned Water Supplies for the Artesia System), December 2005.

Conjunctive use storage plans for both groundwater and imported water sources are anticipated for the Central Basin long before the current 2030 terminal planning date.

Table 5.12-7, *Planned City of Artesia Water Supplies*, presents the planned water supplies available to GSWC for the City of Artesia that will meet the Artesia System North Side projected water demands through 2030.

**Table 5.12-7
Projected 2030 Artesia System North Side Water Demands**

Planned Water Demand	2030
Annual Demand (Acre-Feet Per Year)	2,615
Daily Demand - Average Day (Cubic Feet Per Second)	3.61
Peak Demand - Maximum Day (Million Gallons Daily)	3.3

Source: Written Communication: Mr. Mark W. Insco, P.E., Civil Engineer, Golden State Water Company, April 9, 2010.

Water Quality

The quality of the water product distributed by the GSWC via the Artesia System to the City of Artesia meets all Federal and State primary (health related) and secondary (color and taste) drinking water requirements.

Water Facilities

GSWC’s existing facilities within Artesia consist of two groundwater wells and a water distribution system that includes valves, hydrants, flush outs, sampling stations, and other appurtenants.



5.12.1.4 SIGNIFICANCE THRESHOLDS AND CRITERIA

Appendix G of the CEQA Guidelines contains the Initial Study Environmental Checklist Form used during preparation of the Project Initial Study; refer to Appendix 12.1, Initial Study/Notice of Preparation. The Checklist includes the following questions relating to water service, which have been utilized as the thresholds of significance in this Section. Accordingly, a significant environmental impact would occur if the Project would:

- Require or result in the construction of new water treatment facilities or expansion of existing water facilities, the construction of which could cause significant environmental effects; and/or
- Not have sufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements.

Based on these significance thresholds and criteria, the Project’s effects have been categorized as either “effects found not to be significant” or “potentially significant impact.” Feasible mitigation measures, which could avoid or minimize potentially significant impacts, are identified. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a “significant unavoidable impact.”

5.12.1.5 PROJECT IMPACTS AND MITIGATION MEASURES

GENERAL PLAN UPDATE POLICIES

The following Policies and Policy Actions relevant to water facilities and supplies have been proposed in the General Plan Update:

COMMUNITY DEVELOPMENT AND DESIGN ELEMENT

Community Policy CFI 1.1: Maintain facilities and infrastructure to serve diverse community needs

Policy Action CFI 1.1.3: Assess the City’s public utilities systems’ ability to serve current and future residents, recommend improvements and identify funding mechanisms and partners for implementation.

Policy Action CFI 1.1.4: Continue to provide municipal water service that meets or exceeds State and Federal health standards and monitor water quality according to established criteria, with respect to health standards.

Community Policy CFI 1.2: Promote equitable distribution of community facilities and infrastructure.



Policy Action CFI 1.2.1: Conduct a community needs assessment to determine where service gaps exist in community facilities and where particular types of programs could best meet neighborhood needs.

Policy Action CFI 1.2.2: Provide for the efficient and economic distribution of adequate water supply and pressure to all residential, commercial, industrial and public areas served by the City.

Community Policy CFI 1.3: Require new development to provide proportionate facilities and infrastructure improvements as the new development occurs.

Policy Action CFI 1.3.1: Coordinate development with the Capital Improvement Plan (CIP) to ensure completion of high-priority facility and infrastructure elements.

Community Policy CFI 2.1: Employ ongoing maintenance and upgrades to protect the City's long-term investment in community facilities.

Policy Action CFI 2.1.1: Continue to inspect, maintain and enhance City facilities relative to their water use.

Policy Action CFI 2.1.3: Update the City's Water Master Plan, as necessary.

Policy Action CFI 2.1.5: Amend as necessary and adopt a Seven-year Capital Improvement Program.

Community Policy CFI 3.1: Promote green and sustainable practices and approaches in planning, design, construction, renovation and maintenance of public facilities.

Policy Action CFI 3.1.1: Continue to sponsor and provide water conservation and education programs.

Policy Action CFI 3.1.2: Examine and utilize the use of alternative water supplies, such as grey water and reclaimed water, where appropriate and feasible.

Policy Action CFI 3.1.7: Review and revise planning and building codes to provide for new technologies (i.e. low flow fixtures, low flow toilets, drought tolerant landscaping, etc.).

COMMUNITY RESOURCES AND WELLNESS ELEMENT

Community Safety

Policy Action SAF 6.1.2: Strive to maintain necessary water pressure throughout the City and provide necessary water storage to meet peak fire demand.



SUSTAINABILITY ELEMENT

Energy

Policy Action SUS 1.2.2: Support the adoption of standards for requiring retrofits of existing homes with energy efficient measures at time of sale, such as increased insulation, weather-stripping, improved lighting and water efficiency.

Urban Design

Community Policy SUS 3.1: Adopt sustainable building measures for new municipal buildings and major renovations.

Policy Action SUS 3.1.1: Educate municipal employees about sustainable building design and operations.

Policy Action SUS 3.1.2: Consider adopting green building standards for municipal buildings.

Community Policy SUS 3.2: Strongly encourage the use of green building techniques in new construction and major renovations throughout the City.

Policy Action SUS 3.2.1: Prioritize the development and implementation of an outreach and education program to promote green building practices by residents and businesses.

Policy Action SUS 3.2.2: Encourage and explore incentives or mandates for green building techniques in existing building retrofits as well as new buildings.

Community Policy SUS 3.3: Achieve and maintain a mix of affordable, livable and green housing types throughout the City for people of all socio-economic, cultural, and household groups (including seniors, families, singles and disabled).

Urban Nature

Policy Action SUS 4.1.2: Encourage use of native and drought-tolerant species of street trees and landscaping whenever possible.

Policy Action SUS 4.1.3: Encourage property owners to landscape their property with plants and trees that are water-efficient, provide habitat for wildlife, produce food, treat stormwater, and/or offer shade.

Community Policy SUS 4.2: Expand public space in the City by establishing new parks, civic plazas, and open space as funding allows. Prioritize development of new park facilities in currently underserved areas within the City.



Transportation

Community Policy SUS 5.1: Decrease vehicle miles traveled by increasing per vehicle ridership and decreasing the number of trips by autos and trucks.

Policy Action SUS 5.1.1: Encourage alternative commute patterns.

Policy Action SUS 5.1.2: Wherever possible, encourage opportunities for “park-once” habits for business patrons. Reduce current subsidies to auto commuting by reducing parking required for new transit-oriented or mixed-use developments—with convenient parking reserved for carpoolers, bicycles, customers and guests.

Policy Action SUS 5.1.3: Consider alternative work schedules for City employees to reduce employee driving.

Policy Action SUS 5.1.4: Coordinate with neighboring jurisdictions to create an integrated system of bike routes, through such improvements as signage, additional bicycle lanes and paths, and additional bicycle racks.

Policy Action SUS 5.1.5: Improve walkability within the City with such elements as pedestrian-friendly streets and urban trails to link neighborhoods with recreation, business and civic areas.

Policy Action SUS 5.1.6: Coordinate efforts to increase pedestrian activity through improvements that make walking more safe, convenient, and enjoyable, including sidewalks, accessibility ramps, benches, traffic-calming measures, landscaping, and convenient and safe transit stops.

Policy Action SUS 5.1.7: Coordinate with regional agencies to provide convenient access to commuter-rail and other transit opportunities.

Community Policy SUS 5.2: Decrease congestion on local and regional roadways to improve safety, reduce emissions and maintain mobility.

Policy Action SUS 5.2.1: Prioritize development and implementation of a traffic signal synchronization and optimization program.

Environmental and Public Health

Community Policy SUS 6.2: Protect and enhance environmental and public health by reducing or eliminating the use of hazardous and toxic materials; minimizing pollutants entering the air, soil, and water; and lessening the risks which environmental problems pose to human health and prosperity.



Water

Community Policy SUS 8.1: Maximize water efficiency and the use of alternative sources of water in City operations.

Policy Action SUS 8.1.1: Prioritize the monitoring, enforcement, and, as necessary, improvement of the Water Conservation Ordinance to reduce City-wide water consumption.

Policy Action SUS 8.1.2: Use an understanding of local water consumption to help create goals, prioritize conservation actions, and gauge progress.

Policy Action SUS 8.1.3: Promote water conservation within municipal buildings and operations, including fixture retrofits and diligent leak repairs.

Policy Action SUS 8.1.4: Promote the use of drought-tolerant plants and high-efficiency irrigation systems in landscaping, through implementation of the Water Efficient Landscaping Ordinance and public education.

Community Policy SUS 8.2: Implement outreach and education programs that promote best practices in water conservation.

Policy Action SUS 8.2.1: Promote community water conservation through outreach and consider a hotline for reporting wasteful irrigation.

Policy Action SUS 8.2.2: Promote public awareness of water use issues and support for wise water management.

Policy Action SUS 8.4.1: Encourage water conservation and the use of alternative water sources (i.e., graywater, recycled water, etc.) for non-potable uses, such as irrigation, cooling towers and toilet flushing.

❑ EFFECTS FOUND NOT TO BE SIGNIFICANT

In accordance with Section 15128, *Effects Not Found To Be Significant*, of the *CEQA Guidelines*, the following briefly discusses the reasons that various possible significant effects of the Project were determined not to be significant and were therefore not discussed in detail.

There are no impacts regarding water facilities or supplies found not to be significant.

❑ POTENTIALLY SIGNIFICANT IMPACTS

■ DEVELOPMENT ACCOMMODATED UNDER THE PROPOSED GENERAL PLAN UPDATE COULD REQUIRE THE CONSTRUCTION OF NEW WATER TREATMENT FACILITIES AND/OR EXPANSION OF EXISTING FACILITIES.



Impact Analysis: GSWC's existing facilities within Artesia consist of two groundwater wells and a water distribution system, as described above. GSWC has confirmed sufficient capacity exists within the Artesia System, to accommodate the water treatment needs through the year 2030.⁵ Therefore, the additional development accommodated under the proposed General Plan Update would not require or result in the construction of new or expanded water treatment facilities. Project implementation would not result in significant environmental impacts in this regard.

The additional development accommodated under the proposed General Plan Update would increase water demand within the City, thus, requiring the construction of new local water facilities and/or expansion of existing facilities. Hydraulic modeling of the Artesia System supply capacity and storage capacity has shown that improvements would be required to meet the projected demands through the year 2030. Future developments would be required to make all improvements necessary to extend water service to the development site, including any service upgrades. The City of Artesia is situated in the middle of a highly built-out and urbanized region. The Artesia is bordered by the cities of Norwalk and Cerritos. Given that an extensive water distribution system exists within Artesia, as well as the built-out nature of the surrounding cities, it is not anticipated that construction of new water facilities or expansion of existing facilities would cause significant environmental effects. Notwithstanding, through the City's development review process, and in consultation with GSWC, future projects would be evaluated to determine the need for water system improvements and the conditions for their establishment and operation, including any necessary CEQA compliance. Moreover, the Community Facilities and Infrastructure Element has identified as Goals to serve a diverse range of community needs, and encourage efficient use of community facilities and provide adequate maintenance. To this end, all future development would be subject to compliance with the Policies and Policy Actions outlined above, which would ensure future development would result in less than significant impacts involving construction of water treatment facilities and/or expansion of existing facilities.

Mitigation Measures: No mitigation is required.

Level of Significance: Less Than Significant.

■ **DEVELOPMENT IN ACCORDANCE WITH THE PROPOSED GENERAL PLAN UPDATE COULD RESULT IN INCREASED DEMAND FOR WATER SUPPLIES WITHIN THE CITY.**

Impact Analysis: Table 3-3, 2030 General Plan Update Buildout, outlines the City's designated land uses, at buildout of the proposed General Plan Update. As indicated in Table 3-3, the General Plan Update's development potential at buildout is approximately 4,948 DU and 2.9 million square feet of non-residential land uses. The water demand at buildout according to the proposed General Plan Update would be approximately 7,169 AFY; refer to Table 5.12-8,

⁵ Telephone Communication: Golden State Water Company, Mr. Ernest A. Gisler, P.E., Planning Manager, May 19, 2008.



General Plan Update Water Demand. This represents an increase of approximately 778 AFY over the City’s existing water demand of approximately 6,391 AFY; refer to [Table 5.12-8](#).

**Table 5.12-8
General Plan Update Water Demand**

Land Use	Demand Factor	General Plan Update			Water Demand (Acre-Feet Per Year)
		DU	Acre	Square Feet	
Residential					
Low Density Residential	0.374101	3,111			1,163.83
High Density Residential	2.789986	1,837			5,125.20
<i>Subtotal Residential</i>		4,948			6,289
Non-Residential					
Commercial General	0.000119			2,133,805	253.92
Office	0.000108			81,240	8.77
Institutional	0.000108			129,333	13.97
Light Industrial	0.000562			582,331	327.27
<i>Subtotal Non-Residential</i>				2,926,709	603.93
Open Space/Parks	10.5179283		26.27		276.31
Total		5,376	26.27	7,453,530	7,169

Implementation of the proposed General Plan Update would increase the demand for water resources. The projected water capacity for the Artesia System in build-out year 2030 is estimated to be approximately 7,469 AFY; refer to [Table 5.12-6](#). Thus, the projected water capacities for the Artesia System in 2030 would be sufficient to meet the water demand (approximately 7,169 AFY) generated by the General Plan Update at buildout.

The Artesia System’s estimated future water demands, as specified in the UWMP, were based on the Southern California Association of Governments’ (SCAG) population, housing, and employment forecasts. SCAG’s population, housing, and employment forecasts for the City of Artesia were based on the currently adopted 1993 General Plan. Therefore, projects that are consistent with SCAG’s forecasts are considered consistent with the Artesia System’s future water demand estimates specified in the UWMP. The water demand at buildout according to the 1993 General Plan would be approximately 8,682 AFY; refer to [Table 5.12-5](#). The water demand associated with the proposed General Plan Update would be approximately 7,169 AFY, or approximately 17.4 percent (1,513 AFY) less than the 1993 General Plan, which was the basis of SCAG’s projections, and hence the UWMP. Between groundwater, imported water, and recycled water, GSWC would have access to water supplies necessary to serve the additional demands anticipated from the proposed General Plan Update. Therefore, sufficient water supplies would be available from existing entitlements and resources to serve the development permitted by the General Plan Update and a less than significant impact would occur in this regard.



As previously noted, the Sustainability Element has identified as a Goal to reduce potable water consumption per capita City-wide and protect the watershed from pollution. To this end, all future development projects within the City would be subject to compliance with the Policies and Policy Actions outlined above, which involve water conservation measures. Additionally, any future development project meeting SB 610 criteria would require a water supply assessment. Similarly, any project involving a subdivision pursuant to SB 221 would require verification of sufficient water supply from the water supplier. Compliance with this existing regulatory framework and the specified General Plan Update Policies and Policy Actions would further ensure that sufficient water supplies would be available from existing entitlements and resources to serve future development.

Mitigation Measures: No mitigation is required.

Level of Significance: Less Than Significant.

5.12.1.6 CUMULATIVE IMPACTS

■ **DEVELOPMENT WITHIN THE CITY AND LOCAL REGION COULD CUMULATIVELY IMPACT WATER FACILITIES AND SUPPLIES WITHIN THE GSWC ARTESIA SYSTEM.**

Impact Analysis: The GSWC Artesia System provides services to the City of Artesia, most residents in the City of Hawaiian Gardens, and portions of the City of Cerritos, City of Lakewood, and City of Long Beach. Based on SCAG’s population, housing, and employment forecast estimates, the estimated water demand for the Artesia System in 2030 is 7,038 AFY.⁶ The projected water capacity for the Artesia System in 2030 would be 7,469 AFY; refer to [Table 5.12-6](#). Thus, the projected water capacities for the Artesia System in 2030 would be sufficient to meet the forecast cumulative water demand. Additionally, the availability of developable land within the Artesia System’s service area is limited due to the urbanized built-out nature of the region, limiting new development and therefore limiting population increases over the next twenty years. GSWC has concluded they have sufficient permitted water resources to supply the entire Artesia System with water through the year 2030, based on usage projections outlined in the 2005 Artesia UWMP. Therefore, implementation of the proposed General Plan Update combined with other development in the Artesia System’s service area, would not result in a cumulatively significant impact on water supplies.

Mitigation Measures: No mitigation is required.

Level of Significance: Less Than Significant.

⁶ CH2MHILL, 2005 *Urban Water Management Plan – Artesia Table 4-2 (Population-Based and Historical-Trend Projections of Water Deliveries for Service Connections for the Artesia System)*, December 2005.



5.12.1.7 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impact would result from implementation of the *proposed General Plan Update*.

5.12.1.8 SOURCES CITED

CH2MHILL, *2005 Urban Water Management Plan – Artesia*, December 2005.

Golden State Water Company, *Telephone Communication: Mr. Ernest A. Gisler, P.E., Planning Manager*, May 19, 2008.

Golden State Water Company, *Written Communication: Mr. Ernest A. Gisler, P.E., Planning Manager*, May 27, 2008.

Golden State Water Company, *Written Communication: Mr. Mark W. Insko, P.E., Civil Engineer*, April 9, 2010.

RBF Consulting, *City of Artesia General Plan Update*, July 20, 2010.



5.12.2 WASTEWATER

5.12.2.1 PURPOSE

This section identifies the nature and location of wastewater conveyance and treatment facilities and existing related infrastructure for the City of Artesia. This section provides an analysis of projected impacts to wastewater conveyance and treatment facilities, as well as the estimated wastewater generation that may result from the implementation of the proposed General Plan Update. Mitigation measures to avoid or reduce the significance of impacts are recommended, as necessary.

5.12.2.2 EXISTING REGULATORY SETTING

NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMITS

The NPDES permit system was established in the Clean Water Act (CWA) to regulate both point source discharges (a municipal or industrial discharge at a specific location or pipe) and nonpoint source discharges (diffuse runoff of water from adjacent land uses) to surface waters of the United States. For point source discharges, such as sewer outfalls, each NPDES permit contains limits on allowable concentrations and mass emissions of pollutants contained in the discharge.

DISPOSAL OF BIOSOLIDS

Title 40 of the Code of Federal Regulations (CFR) Part 503, Title 23 California Code of Regulations, and standards established by the Regional Water Quality Control Board (RWQCB) regulate the disposal of biosolids.

5.12.2.3 EXISTING ENVIRONMENTAL SETTING

WASTEWATER FACILITIES

The City is located within the jurisdictional boundaries of the County Sanitation Districts of Los Angeles County (Districts), specifically within District Nos. 2, 18, and 19. The Districts own, operate, and maintain the large trunk sewers that form the backbone of the regional wastewater conveyance system. Local collector and/or lateral sewer lines within the City are owned by the City, however, operated and maintained by the County of Los Angeles Department of Public Works Consolidated Sewer Maintenance District (CSMD).



WASTEWATER TREATMENT

The wastewater generated by the City is treated at one or more of the facilities outlined in Table 5.12-9, *Wastewater Treatment Plants*. As indicated in Table 5.12-9, no deficiencies presently exist in the Districts’ facilities that serve the City.

**Table 5.12-9
Wastewater Treatment Plants**

Treatment Plant	Location	Design Capacity (mgd)	Peak Flow (mgd)
Joint Water Pollution Control Plant	City of Carson	400.0	281.1
Los Coyotes Water Reclamation Plant	City of Cerritos	37.5	26.5
Long Beach Water Reclamation Plant	City of Long Beach	25.0	18.5
Source: Written Correspondence: Ms. Adriana Raza, Customer Service Specialist Facilities Planning Department, April 8, 2010.			

In order for the Districts to conform to the requirements of the Federal Clean Air Act (CAA), the design capacities of the Districts’ wastewater treatment facilities are based on SCAG’s regional growth forecasts. Specific policies included in the development of SCAG’s regional growth forecasts are incorporated into the South Coast Air Quality Management District (SCAQMD) Air Quality Management Plan (AQMP). Therefore, all Districts facility expansions must be sized and service phased consistent with SCAG’s regional growth forecasts.

WASTEWATER GENERATION

The wastewater flow associated with the existing land uses is approximately 1.7 million gallons per day (gpd); refer to Table 5.12-10, *Existing Wastewater Flow*.

**Table 5.12-10
Existing Wastewater Flow**

Land Use	Wastewater Flow Rate (Gallons per Day)	Existing Conditions			Wastewater Flow (Gallons per Day)
		DU	Acre	Square Feet	
Residential					
Low Density Residential	260	3,018			784,680
High Density Residential	156	1,592			248,352
<i>Subtotal Residential</i>		4,610			1,033,032
Non-Residential					
Commercial General	325			1,777,737	577,765
Institutional	250			129,333	32,333
Light Industrial	25			603,623	15,091
<i>Subtotal Non-Residential</i>				2,510,693	625,188
Open Space/Parks	0		24.31	0	0
Total		4,610		2,510,693	1,658,220



The wastewater flow at buildout of the 1993 General Plan would be approximately 3.3 million gpd; refer to Table 5.12-11, 1993 General Plan Wastewater Flow.

**Table 5.12-11
1993 General Plan Wastewater Flow**

Land Use	Wastewater Flow Rate (Gallons per Day)	1993 General Plan			Wastewater Flow (Gallons per Day)
		DU	Acre	Square Feet	
Residential					
Low Density Residential	260	3,132			814,320
High Density Residential	156	2,244			350,064
<i>Subtotal Residential</i>		5,376			1,164,384
Non-Residential					
Commercial General	325				1,814,998
Office	200				158,267
Institutional	250				183,867
Light Industrial	25				8,553
<i>Subtotal Non-Residential</i>					2,165,685
Open Space/Parks	0		21.7		0
Total		5,376	21.7		3,330,069

5.12.2.4 SIGNIFICANCE THRESHOLDS AND CRITERIA

Appendix G of the *CEQA Guidelines* contains the Initial Study Environmental Checklist form used during preparation of the project Initial Study, which is contained in Appendix 12.1 of this EIR. The Initial Study includes questions relating to wastewater. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a significant environmental impact would occur if the Project would:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- Require or result in the construction of new wastewater treatment facilities or expansion of existing wastewater facilities, the construction of which could cause significant environmental effects; and/or
- Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments.

Based on these significance thresholds and criteria, the Project’s effects have been categorized as either “effects found not to be significant” or “potentially significant impact.” Feasible mitigation measures, which could avoid or minimize potentially significant impacts, are



identified. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a “significant unavoidable impact.”

5.12.2.5 PROJECT IMPACTS AND MITIGATION MEASURES

□ GENERAL PLAN UPDATE POLICIES

The following Goals and Policies relevant to wastewater facilities have been proposed in the General Plan Update:

COMMUNITY DEVELOPMENT AND DESIGN ELEMENT

Community Facilities and Infrastructure

Community Policy CFI 1.1: Maintain facilities and infrastructure to serve diverse community needs

Policy Action CFI 1.1.2: Regularly review and update the City’s waste management services, systems and associated programs.

Policy Action CFI 1.1.3: Assess the City’s public utilities systems’ ability to serve current and future residents, recommend improvements and identify funding mechanisms and partners for implementation.

Community Policy CFI 1.2: Promote equitable distribution of community facilities and infrastructure

Policy Action CFI 1.2.1: Conduct a community needs assessment to determine where service gaps exist in community facilities and where particular types of programs could best meet neighborhood needs.

Community Policy CFI 1.3: Require new development to provide proportionate facilities and infrastructure improvements as the new development occurs.

Policy Action CFI 1.3.1: Coordinate development with the Capital Improvement Plan (CIP) to ensure completion of high-priority facility and infrastructure elements.

Policy Action CFI 1.3.2: Ensure that sewer improvements required for new development or redevelopment are installed prior to or concurrently with development.

Community Policy CFI 2.1: Employ ongoing maintenance and upgrades to protect the City’s long-term investment in community facilities.



Policy Action CFI 2.1.2: Continue to maintain, improve, and replace aging wastewater collection facilities and storm drain systems to ensure the provision of these services to all areas of the community.

Policy Action CFI 2.1.4: Update the City's Sewer Master Plan and Sewer System Management Plan, as necessary.

Policy Action CFI 2.1.5: Amend as necessary and adopt a Seven-year Capital Improvement Program.

Community Policy CFI 3.1: Promote green and sustainable practices and approaches in planning, design, construction, renovation and maintenance of public facilities.

Policy Action CFI 3.1.3: Support sustainable wastewater services that respect and improve the natural environment.

SUSTAINABILITY ELEMENT

Water

Community Policy SUS 8.4: Reduce the volume of wastewater discharges city-wide.

☐ EFFECTS FOUND NOT TO BE SIGNIFICANT

In accordance with Section 15128, *Effects Not Found To Be Significant*, of the *CEQA Guidelines*, the following briefly discusses the reasons that various possible significant effects of the Project were determined not to be significant and were therefore not discussed in detail.

Threshold: *Would the Project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*

The City requires NPDES permits, as administered by the RWQCB, according to federal regulations for both point source discharges (a municipal or industrial discharge at a specific location or pipe) and nonpoint source discharges (diffuse runoff of water from adjacent land uses) to surface waters of the United States. For point source discharges, such as sewer outfalls, each NPDES permit contains limits on allowable concentrations and mass emissions of pollutants contained in the discharge.

New development under implementation of the proposed General Plan Update would continue to comply with all provisions of the NPDES program, as enforced by the RWQCB. Therefore, the proposed General Plan Update would not result in an exceedance of wastewater treatment requirements.

Additionally, the NPDES Phase I and Phase II requirements would regulate discharge from construction sites. All future projects under the proposed General Plan Update would be



required to comply with all applicable wastewater discharge requirements issued by the State Water Resources Control Board (SWRCB) and RWQCB. Therefore, implementation of the proposed General Plan Update would not exceed applicable wastewater treatment requirements of the RWQCB with respect to discharges to the sewer system or stormwater system within the City. A less than significant impact would occur in this regard.

❑ POTENTIALLY SIGNIFICANT IMPACTS

- **BUILDOUT OF THE CITY IN ACCORDANCE WITH THE PROPOSED GENERAL PLAN UPDATE COULD REQUIRE THE CONSTRUCTION OF NEW OR EXPANSION OF EXISTING WASTEWATER CONVEYANCE SYSTEMS.**

Impact Analysis: The wastewater flow at buildout according to the proposed General Plan Update would be approximately 1.9 million gpd; refer to Table 5.12-12, General Plan Update Wastewater Flow. This represents an increase of approximately 12 percent (193,838 gpd) over the City’s existing average flows of approximately 1.7 million gpd. Implementation of the proposed General Plan Update would result in increased demand on the existing wastewater conveyance system due to increased wastewater flows.

**Table 5.12-12
General Plan Update Wastewater Flow**

Land Use	Wastewater Flow Rate (Gallons per Day)	General Plan Update			Wastewater Flow (Gallons per Day)
		DU	Acre	Square Feet	
Residential					
Low Density Residential	260	3,111			808,860
High Density Residential	156	1,837			286,572
<i>Subtotal Residential</i>		<i>4,948</i>			<i>1,065,432</i>
Non-Residential					
Commercial General	325				693,487
Office	200				16,248
Institutional	250				32,333
Light Industrial	25				14,558
<i>Subtotal Non-Residential</i>					<i>756,626</i>
Open Space/Parks	0		26.27		0
Total		4,948	26.27		1,852,058

As stated previously, the Districts maintain and operate the large trunk sewer lines, which are part of the wastewater conveyance system. Although, no deficiencies presently exist in the Districts’ conveyance facilities that serve the City, expansions of existing facilities may be required on an as needed basis due to incremental increases in wastewater generation, as a result of a new development. Individual developments would be reviewed by the Districts to



determine if sufficient trunk sewer capacity exists to serve the specific project. In addition, the Districts charge a fee for the privilege of connecting to its wastewater system or increasing the existing strength and/or quantity of wastewater attributable to a particular parcel or operation already connected. The fee is imposed in an amount sufficient to construct an incremental expansion of the wastewater system to accommodate the proposed project.

The CSMD would also maintain local sewer lines and upgrades, as part of individual projects. Implementation of the recommended mitigation, which involves site-specific sewer evaluation, would ensure that any new development within the City does not result in an exceedance of the wastewater conveyance capacity for City and Districts facilities. Additionally, because wastewater generation is correlated with water usage, continued water conservation practices, as required by the General Plan Policies and Policy Actions discussed above in the *Water* section, would further reduce the volume of wastewater generated. Compliance with the recommended mitigation and General Plan Policies and Policy Actions outlined above would ensure that impacts to the wastewater conveyance system from development according to the General Plan Update would be less than significant.

Mitigation Measures:

USS-2 Prior to Grading Permit issuance and as determined necessary by the City, all new development that may occur under the General Plan Update shall undertake a site-specific sewer evaluation, including flow monitoring and modeling, in order to determine the adequacy of the existing conveyance system capacities in the affected project area lines, including trunk and local sewers.

Level of Significance: Less Than Significant With Mitigation Incorporated.

- **BUILDOUT OF THE CITY IN ACCORDANCE WITH THE PROPOSED GENERAL PLAN UPDATE COULD REQUIRE THE CONSTRUCTION OF NEW OR EXPANSION OF EXISTING WASTEWATER TREATMENT FACILITIES.**

Impact Analysis: Effluent wastewater from the City is treated at any one or more of the Districts' wastewater treatment plants (i.e., Joint Water Pollution Control Plant, Los Coyotes Water Reclamation Plant, and Long Beach Water Reclamation Plant). As indicated in [Table 5.12-9, *Wastewater Treatment Plants*](#), no deficiencies presently exist in the Districts' facilities that serve the City, as they are operating at a maximum 74 percent capacity.

New development in accordance with the proposed General Plan Update would generate additional wastewater flows, placing an increased demand on the existing wastewater conveyance and treatment facilities. As discussed above, the wastewater flow at buildout according to the proposed General Plan Update would be approximately 1.9 million gpd, or approximately 12 percent (193,838 gpd) over the City's existing average flows of approximately 1.7 million gpd. The additional wastewater generated by the Project would be treated at one or more of the specified plants, which have the capacity to treat the full increase in wastewater from the General Plan Update. The increased wastewater due to implementation of the proposed



General Plan Update could be accommodated within the existing treatment infrastructure. Therefore, expansion would not be required and impacts to the wastewater treatment facilities associated with increased growth in the City would be less than significant.

As previously noted, the design capacities of the Districts' wastewater treatment facilities are based on SCAG's regional growth forecasts. Therefore, all expansions of Districts' facilities must be sized and service phased to be consistent with the SCAG regional growth forecasts. The available capacities of the Districts' treatment facilities are, thus, limited to levels associated with the approved growth identified by SCAG. SCAG's growth forecasts for the City were based on the currently adopted 1994 General Plan. Therefore, projects that are consistent with SCAG's forecasts are considered consistent with the sizing of the District's facilities.

The wastewater generation associated with the proposed General Plan Update would represent a decrease of approximately 44 percent (1.5 million gpd less) when compared to the wastewater generation associated with the 1993 General Plan of approximately 3.3 million gpd, which was the basis of SCAG's projections, and hence the treatment facility sizing. Therefore, wastewater treatment to serve the development permitted by the General Plan Update could be provided within the existing legally permitted levels and a less than significant impact would occur in this regard. Compliance with this existing regulatory framework and the specified General Plan Update Policies and Policy Actions outlined above would further ensure that sufficient treatment capacities would be available to serve future development.

Mitigation Measures: Refer to Mitigation Measure USS-2.

Level of Significance: Less Than Significant With Mitigation Incorporated.

5.12.2.6 CUMULATIVE IMPACTS

■ **DEVELOPMENT WITHIN THE CITY AND LOCAL REGION COULD CUMULATIVELY IMPACT WASTEWATER CONVEYANCE AND TREATMENT FACILITIES WITHIN THE LOS ANGELES COUNTY SANITATION DISTRICTS' SERVICE AREA.**

Impact Analysis: Cumulative growth in the Districts' service area could result in the need for additional wastewater conveyance infrastructure, which could result in significant cumulative impacts depending upon the nature and extent of the proposed improvements. However, any development connecting to the sewer system would be required to pay connection fees in accordance with existing regulations, thus, ensuring that all users pay their fair share for any necessary expansion of the system. Therefore, the Project's cumulative impact would be less than significant.

The County Sanitation Districts of Los Angeles County (Districts) operate and maintain the large trunk sewers that form the backbone of the regional wastewater conveyance system and the treatment plants serving the service area. Development of cumulative projects within the wastewater service providers' areas, including the proposed Project, would generate additional



quantities of wastewater, depending on net increases in population, square footage, and intensification of uses. Cumulative projects would contribute to the overall regional demand for wastewater treatment service. The design capacities of the wastewater treatment facilities are based on the regional growth forecasts adopted by SCAG, which in turn are based on cities' General Plans. Although the proposed General Plan Update is not included within SCAG's growth forecast, the Project's wastewater generation would be less than the currently adopted 1993 General Plan used in SCAG forecasts. Additionally, the existing treatment plants operate below their design capacities. Thus, it is anticipated that cumulative development would not exceed the capacity of the wastewater treatment system. The cities would continue to implement water conservation measures, further decreasing wastewater generation. Consequently, the proposed General Plan Update would not result in a cumulatively considerable contribution to an impact on wastewater treatment. The Project's cumulative impact would be less than significant.

Mitigation Measures: Refer to Mitigation Measure USS-2.

Level of Significance: Less Than Significant With Mitigation Incorporated.

5.12.2.7 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impacts were identified with regard to wastewater conveyance and treatment facilities.

5.12.2.8 SOURCES CITED

County Sanitation Districts of Los Angeles County, *Written Communication: Ms. Adriana Raza, Customer Service Specialist Facilities Planning Department*, April 8, 2010.

County Sanitation Districts of Los Angeles County Website, <http://www.lacsd.org/>, Accessed July 15, 2010.

RBF Consulting, *City of Artesia General Plan Update*, July 20, 2010.



5.12.3 SOLID WASTE

5.12.3.1 PURPOSE

This section analyzes the potential solid waste impacts associated with the implementation of the proposed General Plan Update. Specifically, this section compares the solid waste generation of the proposed General Plan Update with the capacity of the existing landfills that accept solid waste from the City of Artesia. Mitigation measures to avoid impacts or reduce their significance are provided, as necessary.

5.12.3.2 EXISTING REGULATORY SETTING

CALRECYCLE

The management of solid waste is governed by regulations established by CalRecycle, which is the new home of California's recycling and waste reduction efforts. Officially known as the Department of Resources Recycling and Recovery, CalRecycle is a new department within the California Natural Resources Agency and administers programs formerly managed by the State's Integrated Waste Management Board (CIWMB) and Division of Recycling. CalRecycle delegates local permitting, enforcement, and inspection responsibilities to Local Enforcement Agencies. In 1997, some of the regulations adopted by the State Water Quality Control Board pertaining to landfills (Title 23, Chapter 15) were incorporated with CIWMB regulations (Title 14) to form Title 27 of the California Code of Regulations.

CALIFORNIA INTEGRATED WASTE MANAGEMENT ACT

In 1989, the Legislature adopted the California Integrated Waste Management Act of 1989 (AB 939), in order to "reduce, recycle, and re-use solid waste generated in the state to the maximum extent feasible." The term "integrated waste management" refers to the use of a variety of waste management practices to safely and effectively handle the municipal solid waste stream with the least adverse impact on human health and the environment. AB 939 established a waste management hierarchy as follows:

- Source Reduction;
- Recycling;
- Composting;
- Transformation; and
- Disposal.

The law also required that each county prepare a new Integrated Waste Management Plan and each city prepare a Source Reduction and Recycling Element (SRRE) by July 1, 1991. The SRRE is required to identify how each jurisdiction will meet the mandatory state waste diversion goal of 50 percent by the year 2000. The Act mandated that California's 450 jurisdictions (i.e., cities, counties, and regional waste management compacts), implement waste management programs aimed at a 25 percent diversion rate by 1995 and a 50 percent diversion rate by 2000.



If the 50 percent goal was not met by the end of 2000, the jurisdiction was required to submit a petition for a goal extension to CalRecycle. Senate Bill (SB) 2202 made a number of changes to the municipal solid waste diversion requirements under the Integrated Waste Management Act. These changes included a revision to the statutory requirement for 50 percent diversion of solid waste to clarify that local governments shall continue to divert 50 percent of all solid waste on and after January 1, 2000.

The CalRecycle conducts a biennial review of a jurisdiction's progress in implementing waste diversion and reduction programs to meet the requirements of 25 percent diversion in goal year 1995 and 50 percent diversion in goal year 2000 and beyond. As a result of the biennial review, the Board may either: find that the jurisdiction has implemented programs and achieved the diversion requirements; find that the jurisdiction has made a "good faith effort" toward program implementation and diversion; or initiate a compliance process for jurisdictions failing to implement waste diversion programs and/or failing to achieve the diversion requirement.

The City of Artesia's diversion rate in the 1999 reporting year was 20 percent. Because the 50 percent goal was not met, Artesia submitted a petition for a goal extension to the CalRecycle, which was approved in September 2002. The CalRecycle has completed biennial reviews for the City through reporting year 2004, and approved time extensions through 2003. The CalRecycle has not yet completed the biennial review of the City's most recent annual report (2004). The biennial review status of the City's most recent annual report (2004) is "Compliance Active" indicating the board has initiated a compliance process, because the City did not achieve the diversion requirement. Based on preliminary data, the City's diversion rates for reporting years 2005 and 2006 were 28 and 23 percent, respectively. Therefore, based on preliminary data, the City is not currently achieving AB 939's diversion requirement.

ASSEMBLY BILL 399

In 2005, AB 399 established the Multifamily Dwelling Recycling Program Law to increase recycling in multifamily dwellings. This bill required the IWMB, local governments, and owners and managers of multifamily dwellings to provide information and assistance to achieve higher levels of recycling in multifamily dwellings. By July 1, 2007, owners of a multifamily dwelling are required to provide a written notice to a tenant of the multifamily dwelling, directing the tenant to a website that provides information regarding how tenants could reduce, reuse, and recycle solid waste materials.

LOS ANGELES COUNTYWIDE SITING ELEMENT

In 1997, the County of Los Angeles prepared the Los Angeles Countywide Siting Element that estimates the amount of solid wastes generated in the County and proposes various diversion and alternate disposal options. The Siting Element identifies the Los Angeles County Department of Public Works (LACDPW) as the responsible agency to develop plans and strategies to manage and coordinate the solid waste generated in the County unincorporated areas and address the disposal needs of Los Angeles County as a whole. The Siting Element is based upon the traditional practice of collecting and disposing of solid waste at landfills in the local vicinity.



Therefore, currently many jurisdictions (such as the County of Los Angeles) are stating that existing local landfill space may reach capacity in the very near future.

CITY OF ARTESIA SOURCE REDUCTION AND RECYCLING ELEMENT (SRRE)

Pursuant to AB 939, the California Integrated Waste Management Board required all cities and counties within the State to prepare integrated waste management plans to attain solid waste reduction of 50 percent by the end of year 2000. To this end, the City of Artesia adopted a Source Reduction and Recycling Element (SRRE) and a Household Hazardous Waste Element (HHWE) in 1994.

5.12.3.3 EXISTING ENVIRONMENTAL SETTING

The City of Artesia currently maintains a franchise agreement with Consolidated Disposal Service (CDS) for collection and disposal of the City's solid waste. The franchise agreement also covers residential curbside recyclable and greenwaste collection, and commercial onsite recyclable pickup.

The County Sanitation Districts of Los Angeles County (Districts) are a partnership of 23 independent special districts providing solid waste (and wastewater) management services for approximately 5.3 million people in Los Angeles County. The Districts operate the following facilities:

- Three active sanitary landfills;
- Four landfill energy recovery facilities;
- Two recycle centers;
- Three materials recovery/transfer facilities; and
- Participate in the operation of two refuse-to-energy facilities.

According to the Districts, there are seven major public and private landfills operating in Los Angeles County. The Puente Hills Landfill (PHLF), located at 13130 Crossroads Parkway South in the City of Industry is the closest landfill operated by the Districts' that could be used for disposal of Artesia's solid waste. The Conditional Use Permit (CUP) for the PHLF authorizes the disposal of a maximum of 13,200 tons per day. Disposal operations will continue under the CUP until November 1, 2013, at which time waste will no longer be accepted.

There are two additional solid waste management facilities operated by the Districts that are available to the City of Artesia: the Commerce Refuse-to-Energy Facility (CREF) located at 5926 Sheila Street in the City of Commerce; and the Puente Hills Materials Recovery Facility (PHMRF) located at 2808 Workman Mill Road in the City of Whittier. CREF is a transformation facility that is permitted to accept up to 1,000 tons per day, not to exceed 2,800 tons per week. The PHMRF is permitted to accept 4,400 tons per day, not to exceed 24,000 tons per week of municipal solid waste.



It is noted, as of this writing, CalRecycle had not identified the City’s solid waste generation or the specific disposal facilities used by Artesia for the 2008 reporting period.⁷

Table 5.12-13, *Existing Solid Waste Flow*, provides an estimate of the City’s existing solid waste flow. As indicated in Table 5.12-13, the solid waste generated by the City’s existing land uses is approximately 20,866 tons per year.

**Table 5.12-13
Existing Solid Waste Flow**

Land Use	Solid Waste Flow Rate (lb/du/day or lb/tsf/day)	Existing Conditions			Solid Waste Flow (Tons per Year)
		DU	Acre	Square Feet	
Residential					
Low Density Residential	12.23	3,018			6,736
High Density Residential	10.00	1,592			2,905
<i>Subtotal Residential</i>		4,610			9,642
Non-Residential					
Commercial General	13.00			1,777,737	4,218
Institutional	6.00			129,333	142
Light Industrial	62.50			603,623	6,885
<i>Subtotal Non-Residential</i>				2,510,693	11,244
Open Space/Parks	0.00		24.31	0	0
Total		4,610	24.31	2,510,693	20,866
Notes: lb/du/day = Pounds Per Dwelling Unit Per Day; lb/tsf/day = Pounds Per Thousand Square Feet Per Day.					

SOLID WASTE GENERATION AT BUILDOUT

The solid waste generation at buildout according to the 1993 General Plan would be approximately 40,929 tons per year; refer to Table 5.12-14, *1993 General Plan Solid Waste Flow*.

Recycling Programs

There are several recycling drop off centers within the City, including several reverse vending machine locations at local shopping centers. Consolidated Disposal Service offers curbside pick up of household recyclables and green waste via colored bins. Green waste from the City is primarily used as Average Daily Cover (ADT) at Chiquita Canyon Landfill.

⁷ CalRecycle Website, <http://www.calrecycle.ca.gov/Profiles/Juris/JurProfile2.asp?RG=C&JURID=23&JUR=Artesia>, Accessed July 15, 2010.



**Table 5.12-14
1993 General Plan Solid Waste Flow**

Land Use	Solid Waste Flow Rate (lb/du/day or lb/tsf/day)	1993 General Plan			Solid Waste Flow (lb/day)
		DU	Acre	Square Feet	
Residential					
Low Density Residential	12.23	3,132			6,991
High Density Residential	10.00	2,244			4,095
<i>Subtotal Residential</i>		5,376			11,086
Non-Residential					
Commercial General	13.00			5,584,610	13,246
Office	6.00			791,333	867
Institutional	6.00			735,467	805
Light Industrial	62.50			342,120	14,921
<i>Subtotal Non-Residential</i>				7,453,530	29,843
Open Space/Parks	0.00		21.7		0
Total		5,376	21.7	7,453,530	40,929

5.12.3.4 SIGNIFICANCE THRESHOLDS AND CRITERIA

Appendix G of the CEQA Guidelines contains the Initial Study Environmental Checklist Form used during preparation of the Project Initial Study; refer to Appendix 12.1. The Checklist includes the following questions relating to solid waste, which have been utilized as the thresholds of significance in this Section. Accordingly, a significant environmental impact would occur if the Project would:

- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs; and/or
- Does not comply with federal, state, and local statutes and regulations related to solid waste.

Based on these significance thresholds and criteria, the Project's effects have been categorized as either "effects found not to be significant" or "potentially significant impact." Feasible mitigation measures, which could avoid or minimize potentially significant impacts, are identified. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a "significant unavoidable impact."



5.12.3.5 PROJECT IMPACTS AND MITIGATION MEASURES

□ GENERAL PLAN UPDATE POLICIES

The following Policies and Policy Actions relevant to solid waste have been proposed in the General Plan Update:

SUSTAINABILITY ELEMENT

Waste Reduction

Community Policy SUS 2.1: Reduce municipal waste output.

Policy Action SUS 2.1.1: Beginning with an understanding of City energy usage and cost, prioritize strategies for reduction of municipal waste.

Policy Action SUS 2.1.2: Prioritize opportunities to expand municipal recycling programs in order to increase diversion from landfills.

Policy Action SUS 2.1.3: Investigate the feasibility of adopting an Environmentally Preferred Purchasing policy for municipal operations and a phasing program to reduce the purchase and use of disposable, toxic or non-renewable products.

Policy Action SUS 2.1.4: Prioritize the reduction of the amount of paper waste in municipal operations wherever possible.

Policy Action SUS 2.1.5: In municipal construction and renovation, encourage the recycling, salvage, refurbishment or reuse of materials, and the use of materials with recycled content.

Community Policy SUS 2.2: Strive toward an efficient, integrated waste management system that protects the community's health, ensures that the City is aesthetically pleasing, and reduces the City's waste stream.

Policy Action SUS 2.2.1: Explore amendments to the City's waste hauling contract to include weekly curbside recycling and yard waste collection.

Policy Action SUS 2.2.2: Explore options for a city-wide compost program for food waste.

Policy Action SUS 2.2.3: Prioritize the use of grass-mulching mowers on all City property and encourage their use by residents.

Community Policy SUS 2.3: Achieve and exceed diversion requirement per State regulations (AB 939).



Policy Action SUS 2.3.1: Prioritize the creation and implementation of a Construction and Demolition Debris ordinance to divert a minimum of 50% of waste, and monitor construction projects to ensure compliance. Develop a protocol to monitor progress and continuously improve diversion rate requirement.

Community Policy SUS 2.4: Promote and advocate ideas and practices that support a resource-efficient and sustainable society.

Policy Action SUS 2.4.1: Prioritize outreach and education to promote recycling within municipal operations and in residences and businesses throughout the City.

❑ EFFECTS FOUND NOT TO BE SIGNIFICANT

Section 15128, *Effects Not Found To Be Significant*, of the *CEQA Guidelines*, requires a brief discussion of the reasons that various possible significant effects of the Project were determined not to be significant and were therefore not discussed in detail.

There are no effects involving solid waste found not to be significant.

❑ POTENTIALLY SIGNIFICANT IMPACTS

■ BUILDOUT OF THE CITY IN ACCORDANCE WITH THE PROPOSED GENERAL PLAN UPDATE COULD GENERATE SOLID WASTE THAT EXCEEDS THE PERMITTED CAPACITY OF LANDFILLS SERVING THE CITY.

Impact Analysis: The solid waste generation at buildout according to the proposed General Plan Update would be approximately 20,882 tons per year; refer to Table 5.12-15, *General Plan Update Solid Waste Flow*. This represents an increase of approximately four (4) tons per year over the City's existing solid waste generation of approximately 20,866 tons per year. Implementation of the General Plan Update would therefore, impact solid waste disposal capacity at the landfills serving the City.

As previously noted, CalRecycle had not identified the specific disposal facilities used by Artesia for the 2008 reporting period. According to the Districts, there are seven major public and private landfills operating in Los Angeles County, with the PHL being the Districts' facility located closest to the City. Disposal operations at the PHL will continue under the CUP until November 1, 2013. New development in accordance with the proposed General Plan Update would generate additional solid waste, placing an increased demand on solid waste disposal services and ultimately requiring disposal at a landfill. As discussed above, the solid waste generation at buildout according to the proposed General Plan Update would be approximately 20,882 tons per year, or approximately four tons per year over the City's existing solid waste generation. The additional solid waste generated by the Project may be disposed of at the PHL or any one of the Districts' landfills. The increased solid waste due to implementation of the proposed General Plan Update could be accommodated within the existing landfill capacity. Additionally, the solid waste generation associated with the proposed General Plan Update



would be approximately 20,047 tons per day less than the 1993 General Plan solid waste generation of approximately 40,929 tons per day. Therefore, the City would be served by a landfill with sufficient permitted capacity to accommodate the General Plan Update’s solid waste disposal needs and impacts would be less than significant in this regard.

**Table 5.12-15
General Plan Update Solid Waste Flow**

Land Use	Solid Waste Flow Rate (lb/du/day or lb/tsf/day)	General Plan Update			Solid Waste Flow (lb/day)
		DU	Acre	Square Feet	
Residential					
Low Density Residential	12.23	3,111			6,944
High Density Residential	10.00	1,837			3,353
<i>Subtotal Residential</i>		4,948			10,296
Non-Residential					
Commercial General	13.00			2,133,805	5,062
Office	6.00			81,240	89
Institutional	6.00			129,333	124
Light Industrial	62.50			582,331	5,293
<i>Subtotal Non-Residential</i>				2,926,709	10,586
Open Space/Parks	0.00		26.27	0	0
Total		4,948	26.27	2,926,709	20,882

Per the City’s SRRE program, all future development projects within the City would be required to comply with the SRRE program for diverting solid waste. Additionally, compliance with the General Plan Update Policies and Policy Actions would reduce the volume of solid waste ultimately disposed at a landfill. Continued compliance with the SRRE program and General Plan Update Policies and Policy Actions would ensure that the impacts to the landfill capacities of the landfills serving the City are minimized, thus, a less than significant impact would occur in this regard.

Mitigation Measures: No mitigation is required.

Level of Significance: Less Than Significant.

■ **BUILDOUT OF THE CITY IN ACCORDANCE WITH THE PROPOSED GENERAL PLAN UPDATE COULD CONFLICT WITH STATE, FEDERAL, OR LOCAL STATUTES RELATED TO SOLID WASTE DISPOSAL.**

AB 939 requires that local jurisdictions divert at least 50 percent of all solid waste generated by January 1, 2000. Based on available data, the City’s diversion rate for the most recent reporting year (1999) was 20 percent. Therefore, the City is not currently achieving AB 939’s diversion



requirement. Notwithstanding, per the City's SRRE program, all future development projects within the City would be required to comply with the SRRE program for diverting the solid waste. Additionally, General Plan Update Policies and Policy Actions require recycling and composting. Continued compliance with the SRRE program and General Plan Update Policies and Policy Actions would ensure that the proposed Project is consistent with AB 939, thus, a less than significant impact would occur in this regard.

5.12.3.6 CUMULATIVE IMPACTS

■ DEVELOPMENT WITHIN THE CITY AND LOCAL REGION COULD CUMULATIVELY IMPACT SOLID WASTE DISPOSAL AND LANDFILL CAPACITY.

Impact Analysis: It is considered that, without approved specific plans for substantial expansion of the landfill facilities that serve the County, solid waste generation from approved and foreseeable cumulative projects in the vicinity of Artesia would exacerbate regional landfill capacity issues in the future. That is, any additional solid waste incrementally added to existing facilities would shorten the amount of time until they reach maximum capacity. Implementation of source reduction measures would be required on a project-by-project basis and plans such as those for recycling would partially address landfill capacity issues by diverting additional solid waste at the source of generation. However, the Districts have recognized the future need for out-of-County disposal capacity. To this end, the Districts have pursued additional capacity through the use of a waste-by-rail system. The Districts are currently in the process of designing and constructing the rail facilities necessary to begin Waste-by-Rail operation by 2011/2012. The City of Industry approved the CUP for the Puente Hills Intermodal Facility (PHIMF) in June 2008. The PHIMF will be used for loading and unloading rail-ready shipping containers for the Waste-by-Rail system. The containers would then be transported to the Mesquite Regional Landfill in Imperial County for disposal. Therefore, the proposed General Plan Update, in combination with other projects in the region, would be anticipated to have a less than significant cumulative impact.

All cumulative development within the vicinity of Artesia and Los Angeles County would be required to comply with all applicable Federal, state, and local statutes and regulations related to solid waste. This includes compliance with AB 939, which requires a 50 percent diversion of all solid waste from disposal in local landfills. There is no cumulative impact related to compliance with applicable regulations.

Mitigation Measures: No mitigation is required.

Level of Significance: Less Than Significant.



5.12.3.7 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impacts associated with solid waste would occur as a result of buildout of the proposed General Plan Update.

5.12.3.8 SOURCES CITED

CalRecycle Website, <http://www.calrecycle.ca.gov/Profiles/Juris/JurProfile2.asp?RG=C&JURID=23&JUR=Artesia>, Accessed July 15, 2010.

RBF Consulting, *City of Artesia General Plan Update*, July 20, 2010.



5.12.4 ELECTRICITY

5.12.4.1 PURPOSE

This section addresses the potential electricity consumption impacts associated with implementation of the proposed General Plan Update. The analysis identifies the utility companies that provide electricity to the City of Artesia and estimates electricity demands of the proposed General Plan Update at buildout. Mitigation measures to avoid or reduce the significance of impacts are provided, as necessary. This analysis is based on information provided by Southern California Edison (SCE).

5.12.4.2 EXISTING REGULATORY SETTING

CALIFORNIA CODE OF REGULATIONS TITLE 24

Energy consumption from new buildings in California is regulated by the State Building Energy Efficiency Standards, embodied in Title 24 of the California Code of Regulations (CCR). New buildings are required to conform to energy conservation standards that regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The standards also establish “energy budgets” for different types of residential and nonresidential buildings, with which all new buildings must comply. The energy budgets include space-conditioning and water-heating components, both expressed in terms of energy (BTU) consumed per year. The regulations allow for trade-offs within and between the components to meet the overall budget. The building efficiency standards are enforced through the local building or individual agency permit and approval processes.

5.12.4.3 EXISTING ENVIRONMENTAL SETTING

SCE provides electricity for the City of Artesia. SCE maintains and operates the transmission and distribution infrastructure necessary to provide electricity to end users within the City of Artesia and throughout its entire service area. SCE provides electricity to approximately 13 million people, 430 cities and communities in 50,000 square miles of service area, encompassing eleven counties in central, costal and southern California, excluding the City of Los Angeles and certain other cities.

ELECTRICAL DEMAND

The electrical demand associated with the existing land uses is approximately 608 million kilowatt-hours per year (kwh/yr); refer to Table 5.12-16, *Existing Electrical Demand*.

The electrical demand at buildout according to the 1993 General Plan would be approximately 1,866 million kwh/yr; refer to Table 5.12-17, *1993 General Plan Electrical Demand*.



**Table 5.12-16
Existing Electricity Demand**

Land Use	Electricity Demand Rate (kwh/unit/yr or kwh/sf/yr)	Existing Conditions			Electricity Demand (kwh/yr)
		DU	Acre	Square Feet	
Residential					
Low Density Residential	5,626.50	3,018			1,698,777
High Density Residential	5,626.50	1,592			8,957,388
<i>Subtotal Residential</i>		4,610			25,938,165
Non-Residential					
Commercial General	325.00			1,777,737	577,764,525
Institutional	12.95			129,333	1,674,862
Light Industrial	4.35			603,623	2,625,760
<i>Subtotal Non-Residential</i>				2,510,693	582,065,147
Open Space/Parks	0.00		24.31	0	0
Total		4,610	24.31	2,510,693	608,003,312

**Table 5.12-17
1993 General Plan Electricity Demand**

Land Use	Electricity Demand Rate (kwh/unit/yr or kwh/sf/yr)	1993 General Plan			Electricity Demand (kwh/yr)
		DU	Acre	Square Feet	
Residential					
Low Density Residential	5,626.50	3,132			17,622,198
High Density Residential	5,626.50	2,244			12,625,866
<i>Subtotal Residential</i>		5,376			30,248,064
Non-Residential					
Commercial General	325			5,584,610	1,814,998,250
Office	12.95			791,333	10,247,762
Institutional	12.95			735,467	9,524,298
Light Industrial	4.35			342,120	1,488,222
<i>Subtotal Non-Residential</i>				7,453,530	1,836,258,532
Open Space/Parks	0.00		21.7		0
Total		5,376	21.7	7,453,530	1,866,506,596



5.12.4.4 SIGNIFICANCE THRESHOLDS AND CRITERIA

Appendix G of the CEQA Guidelines contains the Initial Study Environmental Checklist Form used during preparation of the Project Initial Study; refer to [Appendix 12.1](#). The Checklist includes the following question relating to electrical service, which has been utilized as the threshold of significance in this Section. Accordingly, a significant environmental impact would occur if the Project would:

- Create demands on electrical supply and/or infrastructure, which exceed the capacity of the utility serving the project area.

Based on this significance threshold and criteria, the Project's effects have been categorized as either "effects found not to be significant" or "potentially significant impact." Feasible mitigation measures, which could avoid or minimize potentially significant impacts, are identified. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a "significant unavoidable impact."

5.12.4.5 PROJECT IMPACTS AND MITIGATION MEASURES

□ GENERAL PLAN UPDATE POLICIES

The following Policies and Policy Actions relevant to electrical service and facilities have been proposed in the General Plan Update:

COMMUNITY DEVELOPMENT AND DESIGN ELEMENT

Housing

Policy HE 1.5: Encourage energy conservation in new residential development and rehabilitation or remodeling of existing housing units.

SUSTAINABILITY ELEMENT

Energy

Community Policy SUS 1.1: Maximize energy efficiency and conservation in City operations.

Policy Action SUS 1.1.1: Beginning with an understanding of City energy usage and cost, prioritize energy efficiency in City operations and employ the use of cost effective renewable sources of energy.

Policy Action SUS 1.1.2: Investigate whether cost savings would be achieved by retrofitting City traffic signal lights and street lights with more energy efficient lighting technology.



Policy Action SUS 1.1.3: Prioritize fuel efficiency when replacing City fleet and maintenance equipment and consider alternative-fuel engines.

Policy Action SUS 1.1.4: Explore opportunities to install renewable energy generators such as solar water heaters and photovoltaic systems on municipal property.

Community Policy SUS 1.2: Promote community use of energy efficient practices and technologies.

Policy Action SUS 1.2.1: Support the adoption of standards to require energy efficient technology and conservation measures for major renovations and new construction.

Policy Action SUS 1.2.2: Support the adoption of standards for requiring retrofits of existing homes with energy efficient measures at time of sale, such as increased insulation, weather-stripping, improved lighting and water efficiency.

Policy Action SUS 1.2.3: Prioritize outreach and education to promote energy efficient practices by residents and businesses.

Community Policy SUS 1.3: Encourage the use of renewable energy technology citywide.

Policy Action SUS 1.3.1: Coordinate with utility companies to publicize rebates and incentive programs for renewable energy generation.

Policy Action SUS 1.3.2: Prioritize development of an outreach and education program to promote renewable energy installations by residents and businesses.

Urban Design

Community Policy SUS 3.1: Adopt sustainable building measures for new municipal buildings and major renovations.

Policy Action SUS 3.1.1: Educate municipal employees about sustainable building design and operations.

Policy Action SUS 3.1.2: Consider adopting green building standards for municipal buildings.

Community Policy SUS 3.2: Strongly encourage the use of green building techniques in new construction and major renovations throughout the City.

Policy Action SUS 3.2.1: Prioritize the development and implementation of an outreach and education program to promote green building practices by residents and businesses.

Policy Action SUS 3.2.2: Encourage and explore incentives or mandates for green building techniques in existing building retrofits as well as new buildings.



Community Policy SUS 3.3: Achieve and maintain a mix of affordable, livable and green housing types throughout the City for people of all socio-economic, cultural, and household groups (including seniors, families, singles and disabled).

❑ **EFFECTS FOUND NOT TO BE SIGNIFICANT**

Section 15128, *Effects Not Found To Be Significant*, of the *CEQA Guidelines*, requires a brief discussion of the reasons that various possible significant effects of the Project were determined not to be significant and were therefore not discussed in detail.

There are no effects found not to be significant regarding to electrical service.

❑ **POTENTIALLY SIGNIFICANT IMPACTS**

- **DEVELOPMENT ACCOMMODATED BY THE PROPOSED GENERAL PLAN UPDATE WOULD CREATE DEMANDS ON ELECTRICAL SUPPLY THAT COULD EXCEED AVAILABLE CAPACITIES.**

Impact Analysis: The state is currently experiencing constraints related to electrical supply and delivery, which are generally limited to peak demand days during the summer months. For the majority of the days during the year, adequate electrical supplies are reliably provided to consumers. Implementation of the proposed General Plan Update would increase use of electricity in the City, in particular, the electrical demand to light, heat, and air condition the residential and commercial developments. The electrical demand at buildout according to the proposed General Plan Update would be approximately 727 million kwh/yr; refer to Table 5.12-18, *General Plan Update Electrical Demand*. This represents an increase of approximately 118 million kwh/yr over the City's existing electrical demands of approximately 608 million kwh/yr. Additionally, the electrical demand associated with the proposed General Plan Update would be approximately 1,139 million kwh/yr less than the 1993 General Plan electrical demand of approximately 1,866 million kwh/yr.

On peak days, the increase in demand from implementation of future development under the proposed General Plan Update would contribute to electricity supply and delivery constraints. However, all future development would be constructed in compliance with Title 24 energy efficiency standards. Additionally, development accommodated by the proposed General Plan Update would occur over time.



**Table 5.12-18
General Plan Update Electricity Demand**

Land Use	Electricity Demand Rate (kwh/unit/yr or kwh/sf/yr)	General Plan Update			Electricity Demand (kwh/yr)
		DU	Acre	Square Feet	
Residential					
Low Density Residential	5,626.50	3,111			17,504,042
High Density Residential	5,626.50	1,837			10,335,881
<i>Subtotal Residential</i>		4,948			27,839,922
Non-Residential					
Commercial General	325.00			2,133,805	693,486,625
Office	12.95			81,240	1,052,058
Institutional	12.95			129,333	1,674,862
Light Industrial	4.35			582,331	2,533,140
<i>Subtotal Non-Residential</i>				2,926,709	698,746,685
Open Space/Parks	0.00		26.27		0
Total		5,376	26.27	7,453,530	726,586,607

SCE maintains and operates the transmission and distribution infrastructure located throughout the City necessary to serve future development projects associated with the implementation of the proposed General Plan Update. SCE would upgrade existing facilities or add new facilities in the City, based upon specific requests for service from end users. Financial responsibility for any upgrades or additional facilities would be in accordance with SCE’s rules and tariffs. All new developments that require new electricity lines would be required to pay applicable fees assessed by SCE to extend electricity lines to serve the specific project site. SCE would not provide service to new developments if there were not adequate electricity supplies and infrastructure to maintain existing service levels and meet the anticipated electricity demands of the specific development requesting service. Prior to the issuance of grading permits, the project developer would coordinate with SCE to determine exact location of all underground and overhead electrical facilities. Grading plans would be required to reflect the under grounding of utility lines serving the future projects.

The proposed General Plan Update would not have a significant impact on SCE’s capacity to provide electrical power services to the residents of Artesia. SCE anticipates its ability to provide electrical power to the project area, sufficient to meet electrical power demand through General Plan Update build-out in 2030.

Mitigation Measures: No mitigation is required.

Level of Significance: Less Than Significant.



5.12.4.6 CUMULATIVE IMPACTS

■ **DEVELOPMENT WITHIN THE CITY AND LOCAL REGION COULD CUMULATIVELY IMPACT ELECTRICAL SERVICES.**

Impact Analysis: Development under the proposed General Plan Update, in combination with all other development within the SCE service area, would result in the permanent and continued use of electrical resources. However, as SCE is a reactive provider, which supplies electrical services to customers at their request, it is assumed that SCE would be able to service future developments under the proposed General Plan Update in combination with all projected future developments within its service boundaries. SCE maintains and operates the transmission and distribution infrastructure necessary to provide electricity to end users throughout its entire service area. Therefore, the project's contribution to these impacts would not be cumulatively considerable and cumulative impacts to electrical demand within SCE's service boundaries would be less than significant.

Mitigation Measures: No mitigation is required.

Level of Significance: Less Than Significant.

5.12.4.7 SIGNIFICANT UNAVOIDABLE IMPACTS

All electricity impacts associated with implementation of the proposed General Plan Update would be less than significant. No significant unavoidable electricity impacts would occur as a result of buildout of the proposed General Plan Update.

5.12.4.8 SOURCES CITED

California Energy Commission. California Energy Demand 2000-2010. Technical Report to California Energy Outlook 2000.

RBF Consulting, *City of Artesia General Plan Update*, July 20, 2010.

Southern California Edison Website: <http://www.sce.com/>, Accessed July 15, 2010.



5.12.5 NATURAL GAS

5.12.5.1 PURPOSE

This section addresses the potential natural gas consumption impacts associated with implementation of the proposed General Plan Update. The analysis identifies the utility companies that provide natural gas to the City and estimates natural gas demands of the proposed General Plan Update at buildout. Mitigation measures to avoid or reduce the significance of impacts are provided, as necessary. This analysis is based on information provided by the Southern California Gas Company (SCGC).

5.12.5.2 EXISTING REGULATORY SETTING

Refer to [Section 5.12.4.2, *Existing Regulatory Setting*](#).

5.12.5.3 EXISTING ENVIRONMENTAL SETTING

The City lies entirely within the SCGC utility service territory. SCGC is the nation's largest natural gas distribution utility, serving approximately 19.8 million consumers through 5.6 million gas meters in more than 500 communities. SCGC's service area encompasses 20,000 square miles throughout most of Central and Southern California, from Visalia to the Mexican border. SCGC fuels approximately one-half of all the energy use in its service area (non-transportation-related).

The amount of gas used by SCGC customers fluctuates greatly, depending on the season, day, and even hour. To balance gas supplies with customer demands, some of the gas flowing through the SCGC's pipeline network is diverted into four underground natural gas storage fields.

SCGC's total storage capacity is approximately 122.1 billion cubic feet (Bcf) of gas. That is enough to meet the needs of its core residential and business customers for approximately 20 weeks during the non-winter months, or 13 weeks during the winter, before being depleted. These subterranean rock formations, which are natural underground traps, can be repeatedly refilled and drawn from to meet the changing needs of customers. For example, when suppliers cannot deliver enough natural gas to meet heavy demand (usually during the winter) SCGC withdraws gas from its underground storage fields to supplement supplies. When gas usage drops (typically during the summer) SCGC injects the surplus gas into underground reservoirs. Of SCGC's total storage capacity of approximately 122.1 Bcf, 70 Bcf is used by SCGC core residential, small industrial, and commercial customers, and about 5 Bcf is used for system balancing. The remaining capacity is available for use by SCGC large industrial customers to balance and meet their gas supply requirements.

According to the California Energy Commission, SCGC is expected to provide 801.6 Bcf of natural gas to its customers in 2008. By 2010, annual natural gas deliveries to SCGC customers are expected to increase to 859.0 Bcf.



SCGC provides natural gas to residents and businesses throughout the City. SCGC facilities located within the City include medium pressure mains (pipelines) that feed from high pressure lines through pressure regulating stations. Medium pressure mains and services in the public streets feed private residents and businesses. The majority of public streets in the City have existing steel or plastic medium pressure distribution mains that feed individual service lines.

The natural gas demand associated with the existing land uses is approximately 403 million cubic feet per year (cfy); refer to Table 5.12-19, Existing Natural Gas Demand.

**Table 5.12-19
Existing Natural Gas Demand**

Land Use	Natural Gas Demand Rate (cf/unit/yr or cf/sf/yr)	Existing Conditions			Natural Gas Demand (cf/yr)
		DU	Acre	Square Feet	
Residential					
Low Density Residential	79,980.00	3,018			241,379,640
High Density Residential	48,138.00	1,592			76,635,696
<i>Subtotal Residential</i>		4,610			318,015,336
Non-Residential					
Commercial General	34.80			1,777,737	61,865,248
Institutional	24.00			129,333	3,103,992
Light Industrial	34.80			603,623	21,006,080
<i>Subtotal Non-Residential</i>				2,510,693	85,975,320
Open Space/Parks	0.00		24.31	0	0
Total		4,610	24.31	2,510,693	403,990,656

The natural gas demand associated with buildout of the 1993 General Plan land uses is approximately 601 million cubic feet per year (cfy); refer to Table 5.12-20, 1993 General Plan Natural Gas Demand.

**Table 5.12-20
1993 General Plan Water Demand**

Land Use	Natural Gas Demand Rate (cf/unit/yr or cf/sf/yr)	1993 General Plan			Natural Gas Demand (cf/yr)
		DU	Acre	Square Feet	
Residential					
Low Density Residential	79,980.00	3,132			248,817,780
High Density Residential	48,138.00	2,244			88,429,506
<i>Subtotal Residential</i>		5,376			337,247,286
Non-Residential					
Commercial General	34.80			5,584,610	74,256,414
Office	24.00			791,333	1,949,760
Institutional	24.00			735,467	3,103,992
Light Industrial	34.80			342,120	20,265,119
<i>Subtotal Non-Residential</i>				7,453,530	99,575,285
Open Space/Parks	0.00		21.7		
Total		5,376	21.7	7,453,530	436,822,571



5.12.5.4 SIGNIFICANCE THRESHOLDS AND CRITERIA

Appendix G of the CEQA Guidelines contains the Initial Study Environmental Checklist Form used during preparation of the Project Initial Study; refer to [Appendix 12.1](#). The Checklist includes the following question relating to natural gas service, which has been utilized as the threshold of significance in this Section. Accordingly, a significant environmental impact would occur if the Project would:

- Create demands on natural gas supply and/or infrastructure, which exceed the capacity of the utility serving the project area.

Based on these significance thresholds and criteria, the Project's effects have been categorized as either "effects found not to be significant" or "potentially significant impact." Feasible mitigation measures, which could avoid or minimize potentially significant impacts are identified. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a "significant unavoidable impact."

5.12.5.5 PROJECT IMPACTS AND MITIGATION MEASURES

GENERAL PLAN UPDATE POLICIES

The Policies and Actions relevant to natural gas service and facilities have been proposed in the General Plan Update are outlined in Section 5.12.4.4 above.

EFFECTS FOUND NOT TO BE SIGNIFICANT

Section 15128, *Effects Not Found To Be Significant*, of the *CEQA Guidelines*, requires a brief discussion of the reasons that various possible significant effects of the Project were determined not to be significant and were therefore not discussed in detail.

There are no Project effects found not to be significant regarding natural gas service.

POTENTIALLY SIGNIFICANT IMPACTS

- **DEVELOPMENT IN ACCORDANCE WITH THE PROPOSED GENERAL PLAN UPDATE WOULD CREATE DEMANDS FOR NATURAL GAS THAT COULD EXCEED AVAILABLE CAPACITIES.**

Impact Analysis: Implementation of the proposed General Plan Update would increase use of natural gas in the City in order to heat the residential and commercial developments. The natural gas demand at buildout according to the proposed General Plan Update would be approximately 436 million cfy; refer to [Table 5.12-21, *General Plan Update Natural Gas Demand*](#). This represents an increase of approximately 32 million cfy over the City's existing natural gas demands of approximately 403 million cfy. Additionally, the natural gas demand



associated with the proposed General Plan Update would be approximately 164 million cfy less than the 1993 General Plan natural gas demand of approximately 601 million cfy.

**Table 5.12-21
General Plan Update Natural Gas Demand**

Land Use	Natural Gas Demand Rate (cf/unit/yr or cf/sf/yr)	General Plan Update			Natural Gas Demand (cf/yr)
		DU	Acre	Square Feet	
Residential					
Low Density Residential	79,980.00	3,111			250,497,360
High Density Residential	48,138.00	1,837			108,021,672
<i>Subtotal Residential</i>		4,948			358,519,032
Non-Residential					
Commercial General	34.80			2,133,805	194,344,428
Office	24.00			81,240	18,991,992
Institutional	24.00			129,333	17,651,208
Light Industrial	34.80			582,331	11,905,776
<i>Subtotal Non-Residential</i>				2,926,709	242,893,404
Open Space/Parks	0.00		26.27		0
Total		5,376	26.27	7,453,530	601,412,436

SCGC declares itself a “reactive” utility and would provide natural gas as customers request its services. SCGC has also indicated that an adequate supply of natural gas is currently available to serve additional development, and that the natural gas level of service provided to the City would not be impaired by buildout under the proposed General Plan Update. All future development would be constructed in compliance with Title 24 energy efficiency standards. Additionally, development accommodated by the proposed General Plan Update would occur over time.

Although the proposed General Plan Update would result in increases in natural gas demand noted above, an adequate supply is anticipated to be available, as the gas supplies and infrastructure to support demand are provided as needed by SCGC. SCGC would not provide service to new developments if there were not adequate natural gas supplies and infrastructure to maintain existing service levels and meet the anticipated natural gas demands of the specific development requesting service. Therefore the proposed Project would not substantially increase demands beyond the available supply.

SCGC maintains and operates the transmission and distribution infrastructure located throughout the City necessary to serve future development projects associated with implementation of the proposed General Plan Update. SCGC would upgrade existing facilities or add new facilities in the City, based upon specific requests for service from end users. The developer would be required to make contractual arrangements with SCGC prior to initiation of construction for the gas lines. All new developments that require new natural gas lines would be required to pay applicable fees assessed by SCGC to extend natural gas lines to serve the specific project site.



Prior to the issuance of grading permits, the project developer would coordinate with SCGC to determine exact location of all underground and overhead natural gas facilities. Grading plans would be required to reflect the under grounding of utility lines serving the future projects.

Mitigation Measures: No mitigation is required.

Level of Significance: Less Than Significant.

5.12.5.6 CUMULATIVE IMPACTS

- DEVELOPMENT WITHIN THE CITY AND LOCAL REGION COULD CUMULATIVELY IMPACT THE SCG'S NATURAL GAS SYSTEM AND SUPPLY.

Impact Analysis: Development under the proposed General Plan Update, in combination with all other development within the SCGC service area, would result in the permanent and continued use of natural gas resources. However, as SCGC is a reactive provider, which supplies natural gas services to customers at their request, it is assumed that SCGC would be able to service future developments under the proposed General Plan Update in combination with all projected future developments within its service boundaries. SCGC maintains and operates the transmission and distribution infrastructure necessary to provide natural gas to end users throughout its entire service area. Therefore, the project's contribution to these impacts would not be cumulatively considerable and cumulative impacts to natural gas demand within SCGC's service boundaries would be less than significant.

Mitigation Measures: No mitigation is required.

Level of Significance: Less Than Significant.

5.12.5.7 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable natural gas impacts would occur as a result of buildout of the proposed General Plan Update.

5.12.5.8 SOURCES CITED

RBF Consulting, *City of Artesia General Plan Update*, July 20, 2010.

Southern California Gas Company Website, <http://www.socalgas.com/index/>, Accessed July 15, 2010.