

APPENDIX I

Water Supply Assessment

I. Introduction

The proposed Duarte Station Specific Plan (Project) is within the City of Duarte and is approximately 19 acres in size, consisting of three parcels located at the northwest and southwest corners of Business Center Drive and Highland Avenue. Roadways that border the parcels include Evergreen Street to the north, Highland Avenue to the east, East Duarte Road to the south (including the Gold Line tracks under construction), and Denning Avenue and 3 Ranch Road to the west. Business Center Drive traverses the Specific Plan area in an east-west direction. Additionally, the Metro Goldline/Foothill extension railroad right of way borders the Specific Plan area to the south. The Project site is currently developed as a mixed industrial use area. The regional vicinity of the Project is shown in **Figure 1**. The local vicinity of the Project is shown in **Figure 2**.

II. Purpose of Report

The purpose for this report is outlined in Water Code Section 10910.

Law

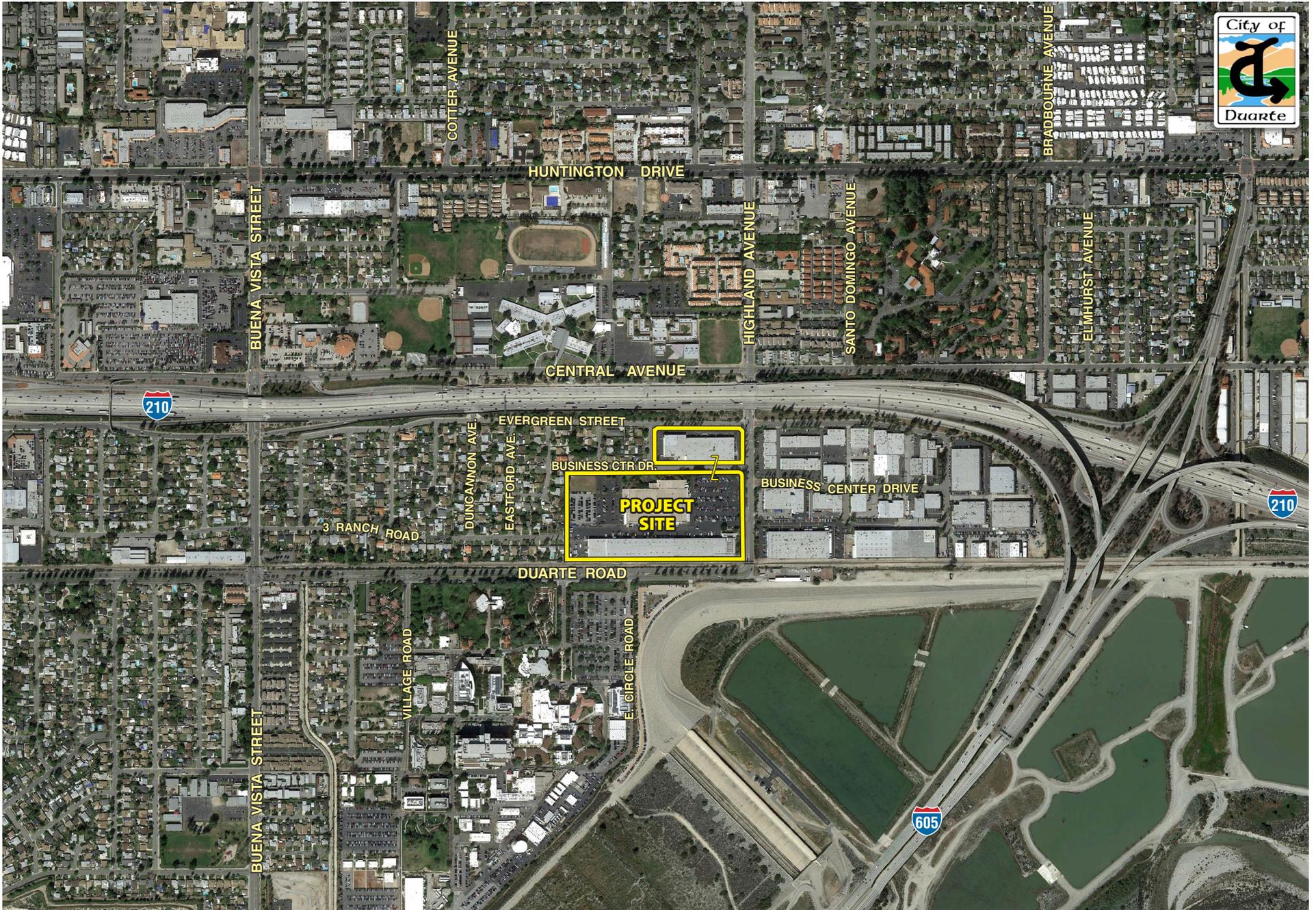
Water Code section 10910 requires a city or county that determines a project is subject to the California Environmental Quality Act to identify any public water system that may supply water for the project and to request those public water systems to prepare a specified water supply assessment, except as otherwise specified. The bill requires the assessment to include, among other information, an identification of existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project and water received in prior years pursuant to those entitlements, rights, and contracts.

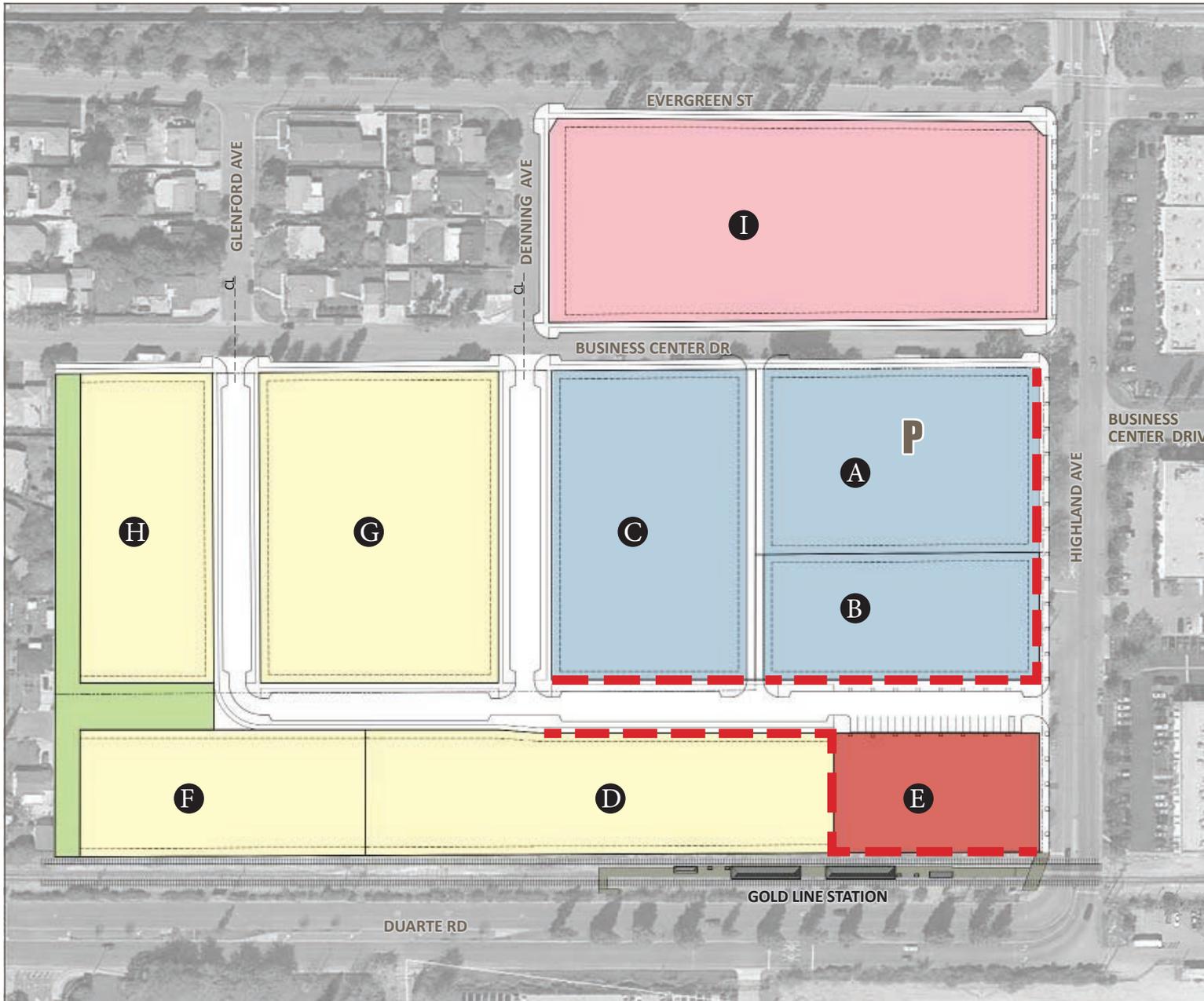
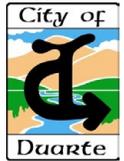
The bill prescribes a timeframe within which a public water system is required to submit the assessment to the city or county and authorizes the city or county to seek a writ of mandamus to compel the public water system to comply with requirements relating to the submission of the assessment.

The bill requires the public water system, or the city or county, as applicable, if that entity concludes that water supplies are, or will be, insufficient, to submit the plans for acquiring additional water supplies.

The bill requires the city or county to include the water supply assessment and certain other information in any environmental document prepared for the project pursuant to the act.

This report is prepared as a technical study in support of the Environmental Impact Report (EIR) for the proposed land uses and pursuant to California Environmental Quality Act (CEQA) requirements. The EIR is an important element for the environmental analysis of the proposed Project. The EIR is required to include a Water Supply Assessment (WSA) under Senate Bill 610 for applicable development projects to verify water supply sources are, or will be, available to serve the Project for the next 20 years.





LAND USE:

- STATION PLAZA MIXED USE
- MIXED USE
- HIGH DENSITY RESIDENTIAL
- HOTEL MIXED USE
- OPEN SPACE
- PERMISSIBLE RETAIL EDGE
- P** SHARED PARKING BETWEEN OFFICE AND GOLDLINE STATION

Source: DAHLIN group, 8-13



9/12/13 JN 130318-19345 MAS

**DUARTE STATION SPECIFIC PLAN
Proposed Land Use**

FIGURE 3

III. Project Description

The Duarte Station Specific Plan project site consists of approximately 19 acres near the center of the City of Duarte in Los Angeles County, California. Regionally, the Project site is to the east of Monrovia, south of the City of Bradbury, and west of the City of Azusa along interstate 210. Regional access to the City is provided primarily by the I-210 and I-605 freeways, as shown in Figure 1.

The Project site is located at the northwest and southwest corners of Business Center Drive and Highland Avenue., as shown in Figure 2. The Project site is currently developed as a mixed industrial use area.

The project applicant proposes to construct approximately 475 residential dwelling units (DU), 250 hotel rooms, and 412,000 square feet of retail and office uses, as summarized in Table 1.

**Table 1
 Proposed Land Uses**

Land Use	Residential (DU)	Non-Residential (SF)	Non-Residential (Hotel Rooms)
Retail	-	12,000	-
Office	-	400,000	-
Hotel	-	-	250
High Density Residential	475	-	-
Open Space	-	-	-
Roads	-	-	-
Open Space	-	-	-
Total	475	412,000	250

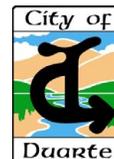
The Project site and proposed land uses are shown in **Figure 3**. The proposed Project also includes approximately 0.8 acres of open space (not including other site landscaping) providing for total site coverage of approximately 4.2 percent.

IV. Identification of Public Water System

Law

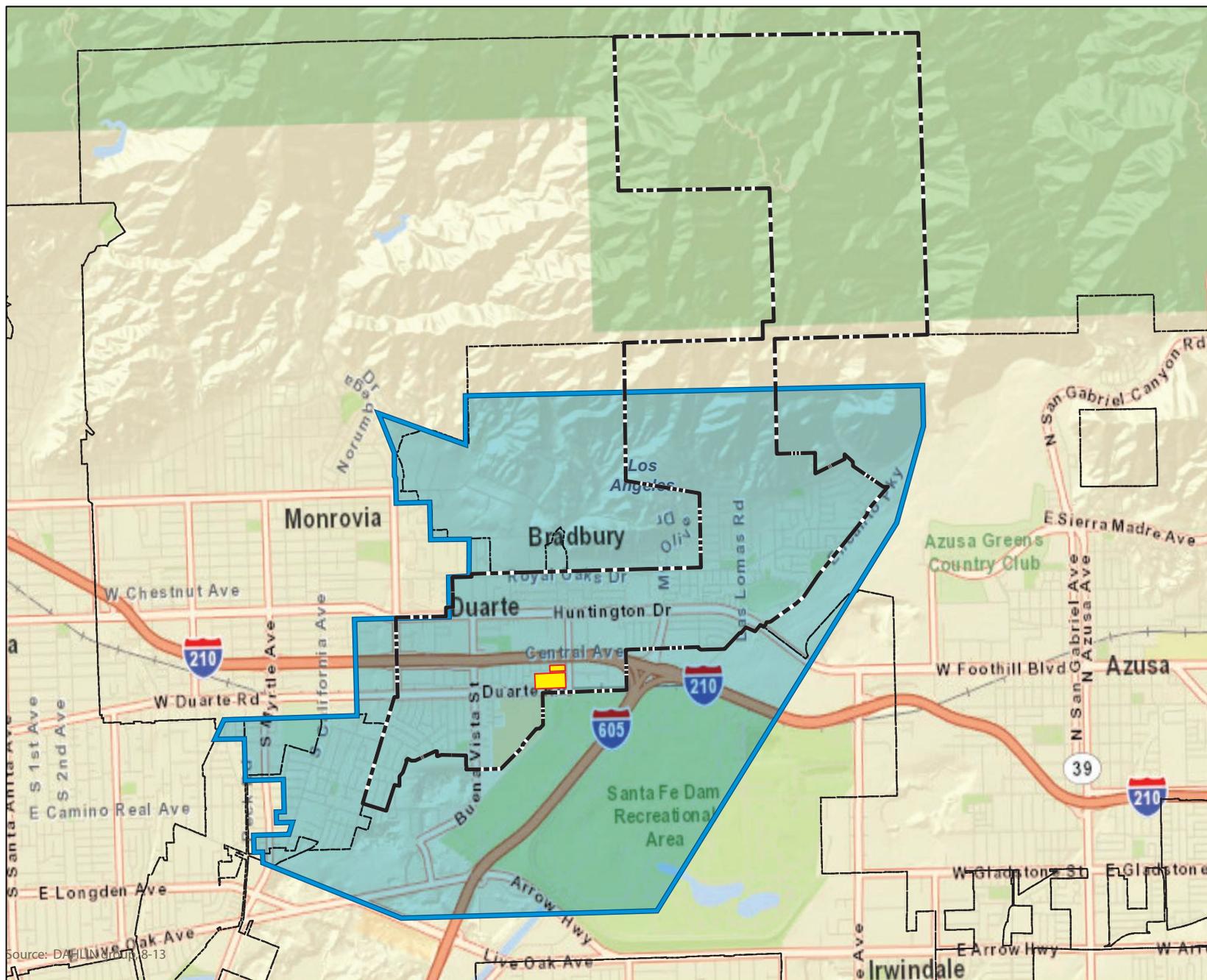
10910. (b) The city or county, at the time that it determines whether an environmental impact report, a negative declaration, or a mitigated negative declaration is required for any project subject to the California Environmental Quality Act pursuant to Section 21080.1 of the Public Resources Code, shall identify any water system that is, or may become as a result of supplying water to the project identified pursuant to this subdivision, a public water system, as defined in Section 10912, that may supply water for the project. If the city or county is not able to identify any public water system that may supply water for the project, the city or county shall prepare the water assessment required by this part after consulting with any entity serving domestic water supplies whose service area includes the project site, the local agency formation commission, and any public water system adjacent to the project site.

The Duarte Station Specific Plan (project) area is within the service area of the California American Water Company (California American Water), an investor owned public utility providing water services to over 630,000 people in 50 communities throughout California. California American Water supplies three distinct service areas of its Los Angeles County District (Baldwin Hills, Duarte, San Marino) within its Southern Division with wholesale imported water from MWD via the City of San Marino and USGVMWD, and local surface water and groundwater via the Main San Gabriel Basin (MSGB) Watermaster. Additional groundwater supplies are provided from the WBMWD; the Central Basin, the Canyon Basin, and the Raymond Basin. Each of the groundwater basins is adjudicated. The California American Water Duarte service area is primarily characterized by residential land use, with some commercial and industrial land use. Cal-Am currently (2010) serves approximately 29,643 people within Duarte. **Figure 4** shows the Project vicinity within the service boundaries of California American Water.

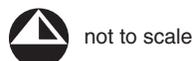


LEGEND:

-  PROJECT SITE
-  CITY OF DUARTE BOUNDARY
-  CAL AM's SERVICE AREA



Source: DAHLIN, 2011, 8-13



9/12/13 JUN 130318-19345 MAS

DUARTE STATION SPECIFIC PLAN
California American Water Service Area

FIGURE 4

V. Project Applicability

Law

10910. (a) Any city or county that determines that a project, as defined in Section 10912, is subject to the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) under Section 21080 of the Public Resources Code shall comply with this part.

10912. For the purposes of this part, the following terms have the following meanings:

(a) "Project" means any of the following:

- (1) A proposed residential development of more than 500 dwelling units.
- (2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
- (3) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
- (4) A proposed hotel or motel, or both, having more than 500 rooms.
- (5) 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 square feet of floor area.
- (6) A mixed-use project that includes one or more of the projects specified in this subdivision.
- (7) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

The Duarte Station Specific Plan (Project) requires a water supply assessment pursuant to Senate Bill 610 (SB 610) under §10912(a)(2). It is defined as a "Project" because the proposed Project includes "mixed-use" land uses consisting of 475 residential dwelling units and 400,000 square-feet of office/retail commercial building space, as well as a 250-room hotel. It is deemed this would likely qualify as a "Project" pursuant to Section 10912(a)(3) or (7).

VI. Schedule

Law

10910. (g) (1) Subject to paragraph (2), the governing body of each public water system shall submit the assessment to the city or county not later than 90 days from the date on which the request was received. The governing body of each public water system, or the city or county if either is required to comply with this act pursuant to subdivision (b), shall approve the assessment prepared pursuant to this section at a regular or special meeting.

(2) Prior to the expiration of the 90-day period, if the public water system intends to request an extension of time to prepare and adopt the assessment, the public water system shall meet with the city or county to request an extension of time, which shall not exceed 30 days, to prepare and adopt the assessment.

(3) If the public water system fails to request an extension of time, or fails to submit the assessment notwithstanding the extension of time granted pursuant to paragraph (2), the city or county may seek a writ of mandamus to compel the governing body of the public water system to comply with the requirements of this part relating to the submission of the water supply assessment.

This WSA has been prepared in accordance with the schedule set forth in Section 10910 of the California Water Code. The City of Duarte has not yet submitted a formal request to California American Water. However, the Project applicant is proceeding with California Environmental Quality Act (CEQA) approvals and desires to include the report within the environmental documentation for public review.

VII. Estimated Water Demand

The water demands for the Project are adapted from the flow factors used for factors taken from the estimate for average daily sewer flow calculated for the Specific Plan. The basis for the sewer flow estimate assumed, on average, 90 percent of the water demand for the Project would enter the wastewater system. Therefore, the Project water demand is calculated as shown in Table 2.

Table 2
Estimated Project Water Demand

PROPOSED DEVELOPMENT				ULTIMATE WATER DEMAND			
Land Use Type	DU	Rooms	Bldg SF	Factor ^[1]		Average	
						gpd	AFY
Retail	-	-	12,000	642	gal/day/ksf	7,704	8.6
Office	-	-	400,000	17	gpd/emp ^[2]	45,333	50.8
Hotel	-	250	-	60	gpd/guest	15,000	16.8
High Density Residential	475	-	-	300	gpd/DU	142,500	159.6
Total	475	250	412,000	-		210,537	236

[1] Based on factors used for the Specific Plan Water/Sewer technical study, which used standard industry values for southern California.

[2] Assumes 1 employee per 150 square feet of office space.

The total projected average day demand for the Project is 210,537 gallons per day (gpd), or 236 acre-feet per year (AFY).

VIII. Urban Water Management Plan (UWMP) Review

Law

10910. (c) (1) The city or county, at the time it makes the determination required under Section 21080.1 of the Public Resources Code, shall request each public water system identified pursuant to subdivision (b) to determine whether the projected water demand associated with a proposed project was included as part of the most recently adopted urban water management plan adopted pursuant to Part 2.6 (commencing with Section 10610).

(2) If the projected water demand associated with the proposed project was accounted for in the most recently adopted urban water management plan, the public water system may incorporate the requested information from the urban water management plan in preparing the elements of the assessment required to comply with subdivisions (d), (e), (f), and (g).

(3) If the projected water demand associated with the proposed project was not accounted for in the most recently adopted urban water management plan, or the public water system has no urban water management plan, the water supply assessment for the project shall include a discussion with regard to whether the public water system's total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing uses.

(4) If the city or county is required to comply with this part pursuant to subdivision (b), the water supply assessment for the project shall include a discussion with regard to whether the total projected water supplies, determined to be available by the city or county for the project during normal, single dry, and multiple dry water years during a 20-year projection, will meet the projected water demand associated with the proposed project, in addition to existing and planned future uses, including agricultural and manufacturing uses.

A. General

The 2010 Urban Water Management Plan (UWMP) for the California American Water, Los Angeles County District (Water Systems Consulting, February 2012) was prepared in accordance with Division 6, Part 2.6, of the California Water Code, Sections 10608 through 10657 as last amended by Senate Bill No. 7 (SBx7-7), which became law in November 2009.

The Duarte Station development project (Project) is located on approximately 19 acres in the City of Duarte and within the water service area of the California American Water Company's Los Angeles County District (LACD or District). The LACD is comprised of three service areas. The Duarte service area serves parts of the cities of Azusa, Bradbury, Duarte, Irwindale and Monrovia. The Duarte service area served an estimated population of 29,643 in 2010, and is expected to increase to 32,538 by 2035. This projection is based on the Southern California Association of Governments (SCAG) population projections by census tract.

B. Water Sources

California American Water obtains its water supply for the Duarte service area from (1) Upper San Gabriel Valley Municipal Water District (USGVMWD) imported water (2) Main San Gabriel Basin (MSGB) groundwater and (3) MSGB surface water from the San Gabriel River. USGVMWD obtains its water supply from the Metropolitan Water District of Southern California (Metropolitan). The amount of demand not supplied by groundwater allocations is met by purchasing supplemental water from a wholesaler for direct potable use or untreated raw water as replacement water for the groundwater basin due to over-pumping. Untreated raw surface water is used to meet irrigation demands or to replenish the groundwater basin. Table 3 shows the current and projected supplies for the Duarte system.

**Table 3
 Duarte System Water Supplies, AFY**

Water Supply Source	2010	2015	2020	2025	2030	2035 [1]
MSGB	4,158	4,062	4,062	4,062	4,062	4,062
MSGB - Surface Water	1,672	1,672	1,672	1,672	1,672	1,672
USGVMWD	309	1,648	1,307	1,471	1,628	1,514
Total	6,139	7,382	7,041	7,205	7,362	7,248

Source: California American Water 2010 UWMP for the Los Angeles County District, 2/6/12

[1] Based on California American Water correspondence and 9/13/13 letter provided by staff, and assumes MSGB remains constant.

California American Water has adjudicated rights to the Main San Gabriel Basin (MSGB). The MSGB is managed by the MSGB Watermaster. Management includes regulating the amount of water pumped from the Basin for all pumpers while responsibly managing the groundwater supply, and also includes setting limits on surface water allocation from the San Gabriel River. Groundwater producers in the MSGB are allowed to exceed their safe yield allocation provided they pay an assessment fee to the MSGB Watermaster. Most years the MSGB is over-pumped because total demand from the various producers, including California American Water, exceeds the available safe yield established by the Watermaster. The Watermaster uses the funds generated from the replenishment fees to purchase replacement water from wholesale agencies that have access to imported water. The authorized wholesaler of imported water for California American Water's Duarte system is the USGVMWD.

The Duarte system service area is classified as an "Integrated Producer", which includes an adjudicated right to 1.8634% of the annual safe yield of MSGB, and a fixed surface water allocation of 1,672 acre feet per year. From 2006 to 2010, groundwater has comprised between 83 and 94 percent of total water supply for LACD, with the remainder supplied by surface water and imported water. California American Water's active wells in the MSGB pumped 18,475 acre-feet per year (AFY) in 2010, and 8,424 AFY was allocated in the Duarte service area. Between 2006 and 2010 production averaged 16,227 AFY, and 7,275 AFY was allocated in the Duarte service area on average.

The projected increase in water demands would be met by purchasing additional water from USGVMWD. With the advent of the mandated conservation measures outline in the 2010 UWMP, California American Water's supply is expected to be highly reliable through 2035. This reliability is a result of the projected

reliability of USGVMWD's reliance on Metropolitan for its imported water supplies, and the planning initiatives undertaken by Metropolitan in the last several years.

Metropolitan's planning initiatives were a result of the inherent uncertainty in Colorado River and SWP supplies given various hydrologic, environmental, and legal considerations, Metropolitan has undertaken several planning initiatives to broaden its water resources reliability. Metropolitan has documented that, consistent with Section 4202 of its Administrative Code, the agency is prepared to provide its member agencies including USGVMWD with adequate supplies of water to meet expanding and increasing needs in the years ahead. When additional water resources are required to meet increasing needs, Metropolitan has stated that it will be prepared to deliver such supplies. In its 2010 Regional Urban Water Management Plan, Section II.4, Metropolitan also states that as a result of investments made in supply and storage, it has identified a resource management plan that should result in 100 percent reliability for non-discounted non-interruptible demands through 2035.

C. Project Identified in UWMP

The Project is not specifically mentioned in the California American Water 2010 UWMP for the LA County District. However, it does project future increases in population, number of water services, and water demand through year 2030. Additionally, correspondence with California American Water staff specifically for this WSA, and in order to identify the minimum 20-year water supply sufficiency for the Project, identified Year 2035 supply and demand projections. The water supply need for the Duarte service area required 6,139 AF in 2010 and is projected to be 7,248 AF in 2035, for a net estimated annual demand increase of 1,109 AF. The estimated annual demand of the Project (Section VII) is 236 AF, and represents approximately 21 percent of the total demand growth.

D. Normal and Dry-Year Supply

Under normal conditions, California American Water meets its customer demands with a combination of imported water, pumping groundwater from the MSGB and surface water from the San Gabriel River. The MSGB Watermaster evaluates groundwater conditions in the MSGB and sets the annual safe yield given adjudicated rights to production. Groundwater producers in the MSGB are allowed to exceed their safe yield allocation provided they pay an assessed replenishment fee to the MSGB Watermaster.

According to the 2010 UWMP, USGVMWD will meet projected water demands under all anticipated hydrologic conditions in the Duarte service area. During single-dry and multiple-dry years, USGVMWD MSGB Replacement purchases are expected to increase to use more imported water to make up for the decrease in local supplies. Metropolitan, USGVMWD and the MSGB Watermaster have implemented, and will continue to implement, projects to ensure that imported water and groundwater demands can be met under normal, single-dry year, and multiple-dry years. Metropolitan plans on 100 percent supply reliability to USGVMWD, providing the same supply reliability to the Los Angeles County District Duarte service area.

E. Water Shortage Contingency Plan

California American Water must obtain CPUC approval for any water conservation programs, including voluntary and/or mandatory measures. California American Water implements Rule 14.1 (on file with CPUC) to obtain CPUC approval for a staged water conservation plan for the LACD, which complies with UWMP Act requirements for a Water Shortage Contingency Plan. Conditions that require stages of action are defined within the Rule. In the event of a 50 percent reduction in supply, California American Water would implement the mandatory conservation measures described (Section H) as *Stage 3 Mandatory Conservation* to achieve a 50 percent reduction in demand.

F. Future Water Supply Projects/Programs

Other than existing infrastructure maintenance and replacement, there are no future supply projects to bring in new sources of water planned. However, opportunities for use of recycled water exist for the Duarte service area through LACSD.

California American Water does not collect or treat any of the wastewater generated within its Los Angeles County District boundaries, nor does it use recycled water within the LACD. Los Angeles County Sanitation District (LACSD) collects and treats the wastewater within the LACD service areas. According to LACSD an estimate of gross wastewater production from LACD customers was calculated using a wastewater generation factor of 83 gallons per capita per day (gpcd). LACSD recycled about 36% of its wastewater in fiscal year 2007-08, with 44 percent of that actually reused for beneficial purposes. Based on these figures, the 2010 UWMP estimates that, at current treatment capacity and the per-capita generation estimates, LACD could be entitled to 102 to 107 AFY for landscape irrigation (UWMP Table 4-9). However, California American Water has no current plan to implement a recycled water program within the 2010 UWMP planning horizon.

G. Desalinated Water Opportunities

California American Water is currently participating in a regional dialogue regarding a desalination study being conducted by WBMWD. WBMWD is exploring the possibility of seawater desalination with a pilot program. A portion of the Los Angeles County wholesale supply could eventually come from desalinated seawater.

H. Transfer Opportunities

California American Water leases unused portions of other purveyor's allocations in the Central Basin when available. Typically, these opportunities are available when other purveyors experience well contamination or other production interruptions. While this supply is available sometimes, it is not considered a reliable source and is not quantifiable as a projected future supply source.

I. Water Supply Reliability

Historically, California American Water has been able to supply 100% of its demand through groundwater production, surface water diversion, and wholesale purchases. It is assumed that projected availability of groundwater and surface water allocations will be 100 percent of average year (2000) allocations. Wholesale purchases are assumed to equal 100 percent of the amount required to replace water pumped in excess of each of California American Water's groundwater basin allocations.

Primary factors that affect the supply reliability of the LACD include legal, environmental, water quality and climatic factors. The legal factors affecting supply include groundwater adjudications and replacement water purchases for excess pumping. Environmental factors related to wholesale supply reliability are reduced deliveries of State Water Project (SWP) due to reduced pumping in the Sacramento Delta. Water quality factors influence groundwater production capacity and efficiency, and supplies are always subject to reduction given climatic factors.

The MSGB has legal factors affecting its reliability due to its adjudication and pumpers excessively pumping requiring replacement water purchases. Some areas of the MSGB have water quality issues limiting production. However, the Duarte system treats its groundwater supplies and, thus, is not affected by the groundwater quality. Climatic factors, such as drought, may reduce available groundwater supplies. In turn, the USGVMWD, as wholesaler, faces the same legal limits as the basin pumpers. As an ultimate user of Metropolitan imported water, the Duarte system can sustain reduced imported water supplies. Climatic factors, such as extended regional drought conditions, may also limit USGVMWD's ability to deliver imported water to the Duarte service area.

With these factors in mind, California American Water will be able to supply enough water to the Duarte service area given any anticipated hydrological condition. Table 4 shows the Duarte service area's supply reliability in an average, single dry year, and multiple dry years.

Table 4
Los Angeles County District Supply Reliability: Duarte service area

Water Supply Sources	Average/ Normal Water Year	Single Dry Water Year	Multiple Dry Water Years		
			Year 1	Year 2	Year 3
MSGB Groundwater Allocation	4,062	4,431	4,431	3,877	3,323
MSGB Surface Water Allocation	1,672	1,672	1,672	1,672	1,672
USGVMWD MSGB Replacement Purchases	1,629	2,274	2,274	3,478	2,422
<i>Total Water Supply</i>	<i>7,363</i>	<i>8,377</i>	<i>8,377</i>	<i>9,027</i>	<i>7,417</i>
<i>% of Normal</i>	<i>100%</i>	<i>114%</i>	<i>114%</i>	<i>123%</i>	<i>101%</i>

Source: California American Water Los Angeles County District 2010 UWMP, Table 5-3

In response to multiple group affiliations, statutory requirements, and concern for the region's water supply sustainability, California American Water employs multiple tactics to conserve water and reduce groundwater production. The major tactics currently being implemented by California American Water include 1) Metering, 2) Tiered Water Rates, 3) Plumbing Retrofits, 4) Public Education, 5) Large Landscape Conservation Incentives, 6) High-Efficiency Washing Machine Rebates, and 7) High-Efficiency Toilet Replacement Rebates, and 8) CUWCC Best Management Practices (BMPs) implementation. All of these tactics are currently being implemented or are in the process of being implemented in the near future. Detailed information on the programs can be found in Section 6 of the California American Water Los Angeles County District 2010 UWMP.

IX. Water Supply Entitlements, Water Rights or Service Contracts

Law

10910. (d) (1) The assessment required by this section shall include an identification of any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and a description of the quantities of water received in prior years by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), under the existing water supply entitlements, water rights, or water service contracts.

(2) An identification of existing water supply entitlements, water rights, or water service contracts held by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), shall be demonstrated by providing information related to all of the following:

- (A) Written contracts or other proof of entitlement to an identified water supply.
- (B) Copies of a capital outlay program for financing the delivery of a water supply that has been adopted by the public water system.
- (C) Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply.
- (D) Any necessary regulatory approvals that are required in order to be able to convey or deliver the water supply.

A. Groundwater

A primary supply source of the California American Water LACD Duarte service area is groundwater from the Main San Gabriel Basin (MSGB). The MSGB is adjudicated, and is managed by the MSGB Watermaster. California American Water is classified as an "Integrated Producer", which includes an adjudicated right to 1.8634% of the annual safe yield of MSGB.

B. Surface Water

As an "Integrated Producer" in the MSGB, California American Water has a fixed surface water allocation of 1,672 acre feet per year from the San Gabriel River for the Duarte service area.

C. Imported Water

Groundwater producers in the MSGB are allowed to exceed their safe yield allocation provided they pay a replenishment fee to the MSGB Watermaster. The Watermaster uses the funds generated from the replenishment fees to purchase replacement water from wholesale agencies that have access to imported water. The authorized wholesaler for California American Water and its Duarte system is the USGVMWD.

Under Section 135 of the Metropolitan Act, preferential rights to imported water are determined by each agency's total historic payments to Metropolitan from property taxes, stand-by charges, readiness-to-serve charges, and other revenue. Revenue resulting from the purchase of Metropolitan water is excluded, even though a portion of such revenues is used to pay for capital projects. At any time under preferential right rules, Metropolitan may allocate water without regard to historic water use or dependence on Metropolitan.

X. Groundwater – Basin Description, PWS Pumping, and Sufficiency Analysis

Law

10910. (f) If a water supply for a proposed project includes groundwater, the following additional information shall be included in the water supply assessment:

(1) A review of any information contained in the urban water management plan relevant to the identified water supply for the proposed project.

(2) A description of any groundwater basin or basins from which the proposed project will be supplied. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current bulletin of the department that characterizes the condition of the groundwater basin, and a detailed description by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), of the efforts being undertaken in the basin or basins to eliminate the long-term overdraft condition.

(3) A detailed description and analysis of the amount and location of groundwater pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), for the past five years from any groundwater basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), from any basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(5) An analysis of the sufficiency of the groundwater from the basin or basins from which the proposed project will be supplied to meet the projected water demand associated with the proposed project. A water supply assessment shall not be required to include the information required by this paragraph if the public water system determines, as part of the review required by paragraph (1), that the sufficiency of groundwater necessary to meet the initial and projected water demand associated with the project was addressed in the description and analysis required by paragraph (4) of subdivision (b) of Section 10631.

A. Groundwater Basin Description

California American Water's Duarte service area overlies the Main San Gabriel Basin (MSGB). The MSGB is an unconfined aquifer which provides up to 90 billion gallons of groundwater annually to San Gabriel Valley's 1.4 million residents. The total surface area of the MSGB is 167 square miles and contains about 2.8 trillion gallons of groundwater. The San Gabriel Mountains border the north with smaller hills including San Jose, Puente, Merced, and Repetto forming the east, south, and southwest borders. A portion of the Duarte service also area overlies the Canyon Basin, which is a subbasin of the MSGB. The Canyon Basin is an unconfined aquifer bounded by the San Gabriel Mountains to the north, west and east. The total water storage capacity of the Canyon Basin is limited to approximately 4.89 billion gallons of groundwater.

B. Groundwater Production

California American Water produces a portion of its water supply from its active groundwater wells located throughout its Duarte service area. The amount of groundwater production is an adjudicated right to 1.8634% of the annual safe yield of MSGB. Groundwater producers in the MSGB are allowed to exceed their safe yield allocation provided they pay an assessment fee to the MSGB Watermaster. Most years the MSGB is over pumped because total demand from the various producers, including California American Water, exceeds the available safe yield established by the Watermaster. The Watermaster uses the funds generated from the assessment fees to purchase replacement water from wholesale agencies that have access to imported water. California American Water historic groundwater production is summarized in Table 5. The projected volume of groundwater needed to supply the Duarte service area through 2035 is taken from the 2010 UWMP and includes Year 2035 production pursuant to followup correspondence with staff. The projected groundwater production is shown in Table 6.

**Table 5
Groundwater Pumping History by Duarte service area (AF)**

Basin Name	2006	2007	2008	2009	2010
Main San Gabriel	7,896	8,424	7,329	6,897	5,830
Percent of Total Water Supply	83	85	82	94	91

Source: California American Water Company Los Angeles County District 2010 UWMP, Table 4-2

**Table 6
Groundwater Projected to be Pumped by Duarte service area (AF)**

Basin Name	2015	2020	2025	2030	2035 [1]
MSGB	5,734	5,734	5,734	5,734	5,734
Total Duarte Supply	7,382	7,041	7,205	7,362	7,248
Percent of Total Duarte Supply	78	81	80	78	79

Source: California American Water Company Los Angeles County District 2010 UWMP, Table 4-3

[1] Based on California American Water correspondence and 9/13/13 letter provided by staff, and assumes MSGB remains constant.

C. Basin Management

The Main San Gabriel Basin (MSGB) is managed by the MSGB Watermaster. The Basin is an adjudicated groundwater basin, and the Watermaster regulates the amount of water pumped from the Basin for all pumpers while responsibly managing the groundwater supply, and it also sets limits on surface water allocation from the San Gabriel River. One primary function of the Watermaster is to determine the Operating Safe Yield for the next fiscal year. Allowed pumping of groundwater is based on adjudicated rights, usually a percentage of the Operating Safe Yield.

D. Groundwater Quality

The groundwater wells in the Duarte service area meet all current California Title 22 drinking water standards. Drinking water regulations pertaining to emerging contaminants of concern, as well as potential revisions to existing regulations are closely monitored by GSWC's Environmental Quality Department. The appropriate sampling and action will be taken on any affected water supply sources as monitoring requirements, new or revised MCLs, are promulgated by the USEPA or CDPH. It is anticipated that it will take approximately 2 to 5 years from official adoption of a new or revised MCL to implement wellhead treatment or alternative approach for a source, including all steps from procuring CPUC funding approval to planning, permitting, design, and construction. There is typically adequate time allotted from regulatory approval to promulgation of a new drinking water standard to address localized treatment requirements; therefore, no direct impacts to water supply reliability from future water quality regulations are anticipated at this time. Strategies for treating groundwater in the Duarte service area are designed to meet or exceed state and federal regulations. All equipment is regularly maintained by California American Water personnel, and any failures are immediately addressed, resulting in minimal disruption to water supply.

Water quality issues exist in the Los Angeles County District service areas. In Duarte, the water quality issues are treated or water is blended to meet water quality standards. The U.S. Environmental Protection Agency (EPA) declared the MSGB a Superfund cleanup site in 1984. Various groundwater cleanup plans have been implemented throughout the Basin by local agencies and water suppliers in conjunction with the EPA and San Gabriel Basin Water Quality Authority.

XI. Primary Issue for Assessment - Conclusion

- (1) The California American Water has been identified as the public water supplier for the Project.
- (2) The Duarte Station Specific Plan is not specifically identified in the 2010 UWMP; however, growth in the area through year 2035 has been projected either through the 2010 UWMP or followup correspondence with California American Water staff specifically for the preparation of this WSA. The estimated increased water demand is planned to be met through additional imported water and increased groundwater extraction.
- (3) The estimated average annual water demand of the Project is 236 AFY, which is equivalent to approximately 21 percent of the expected water demand growth for the Duarte service area through Year 2035.
- (4) In general, California American Water's supply is expected to be 100 percent reliable through 2035. Metropolitan plans on 100 percent supply reliability to USGVMWD as a result of initiatives Metropolitan has undertaken in recent years on behalf of its member agencies.
- (5) MSGB Watermaster continues to coordinate with wholesale water providers and pumpers to manage the Main San Gabriel Basin and provide adequate groundwater supply to meet individual and cumulative development within respective service areas and maintain groundwater basin balance.

Upon evaluation of the estimated water demands of the Duarte Station Specific Plan, and the information presented in the Water Supply Assessment, the California American Water Company concludes that sufficient water supply exists now, and will be available for the Project through Year 2035.

References

1. California American Water Company 2010 Urban Water Management Plan: Southern Division - Los Angeles County District, February 2012. Water Systems Consulting, Inc.
2. Correspondence with California American Water staff and 9/13/13 letter providing Year 2035 estimates of Duarte system demands and total water supplies, as well as total water requirements for the Los Angeles County District.