3.15 Utilities and Service Systems

This section describes and evaluates potential impacts of the Proposed Project related to utility and service systems including water supply, wastewater generation and treatment, storm drainage capacity and conveyance, and solid waste generation and landfill capacity that could result from implementation of the Proposed Project. The section contains: (1) a description of the existing environmental setting as well as a description of the Adjusted Baseline Environmental Setting for each utility and service system; (2) a summary of the federal, state, and local regulations related to the utilities and service systems; and (3) an analysis of potentially significant environmental impacts related to utilities and service systems that could result from the Proposed Project as well as identification of potentially feasible mitigation measures that could mitigate significant impacts.

Comments received in response to the NOP for the EIR regarding utilities and service systems can be found in Appendix B. Any applicable issues and concerns regarding potential impacts related to utilities and service systems that were raised in comments on the NOP are analyzed within this section.

The analysis in this section is based on Project-specific construction and operational features, data provided in the City of Inglewood General Plan, the *Sewer Area Study Inglewood Basketball and Entertainment Center* (Sewer Area Study) (Appendix L), the Golden State Water Company's (GSWC) Urban Water Management Plan (UWMP), CalRecycle's Solid Waste Information System, a Water Supply Assessment prepared for the City by Todd Groundwater (Appendix M), and the *Inglewood Basketball and Entertainment Center Low-Impact Development (LID) Report* (Appendix Q). Also refer to Section 3.9, Hydrology and Water Quality, as it relates to the analysis for storm drainage capacity and conveyance.

Water Supply

3.15.1 Environmental Setting

Regional and Local Setting

Water Sources and Supplies

Water for drinking, irrigation, and other municipal and industrial purposes is supplied to areas within the City of Inglewood within three distinct water service areas. The City of Inglewood serves water to the largest area of the City, GSWC serves water to the southern portion of the City, and Cal-America Water Company serves water to a small area in the northwest part of the City.

Water Suppliers

Golden State Water Company

The Project Site is located in the portion of Inglewood served by the GSWC – Southwest System. GSWC's Southwest System is located in Los Angeles County and serves the Cities of Gardena and Lawndale, parts of the cities of Carson, Compton, El Segundo, Redondo Beach, Hawthorne

and Inglewood, and portions of unincorporated parts of Los Angeles County. The service area is primarily characterized by residential, commercial, and industrial land uses.

GSWC owns 39 water systems throughout California and currently serves more than 1 million customers across the state. It serves 54,994 customers in southwest Los Angeles County.[1] GSWC infrastructure includes approximately 2,800 miles of pipe, 200 groundwater wells, 400 booster pump stations, 25,000 hydrants, and four surface-water treatment plants.

The GSWC Southwest System obtains its water supply from three sources: treated imported surface water, local groundwater via GSWC-operated groundwater wells, and recycled water.[2] Imported surface water is provided to GSWC through wholesalers West Basin Municipal Water District (WBMWD) and Central Basin Municipal Water District (CBMWD), which in turn obtain imported water from Metropolitan Water District of Southern California (Metropolitan). GSWC provides groundwater to this service area through GSWC-owned wells in the West Coast Groundwater Basin (WCGB) and Central Basin. In addition, recycled water is supplied to GSWC by WBMWD.

To meet the water supply needs of the Southwest System service area, GSWC draws on a variety of supply sources, each of which is generally described below. GSWC relies on a combination of groundwater and imported surface water and the percentage that each contributes to the annual total water supply varies; between 2010 and 2015 imported surface water represented approximately 42 to 77 percent of the annual delivered supply while groundwater supplies constituted from 22 to 57 percent of annual deliveries. Recycled water represents about 1 percent of annual supply deliveries and is used for landscape irrigation. **Table 3.15-1** and **Table 3.15-2** present GSWC's recent past water supplies.

TABLE 3.15-1
HISTORICAL WATER SUPPLY ALL SOURCES (AFY)

Water Supply	Source	2010	2015
Purchased or Imported Water	Central Basin Municipal Water District	12,594	3,627
Purchased or Imported Water	West Basin Municipal Water District		17,397
Groundwater	Central and West Coast Subbasin	17,073	5,914
Recycled Water	West Basin Municipal Water District	219	393
TOTAL		**29,886**	**27,331**

SOURCE: Todd Groundwater, 2019. *Water Supply Assessment: Golden State Water Company – Southwest, Inglewood Basketball and Entertainment Center.* July, 2019, Table 8a [EIR Appendix M].

1 Golden State Water Company, 2018. Infrastructure Investments. Available: [HYPERLINK "https://www.gswater.com/infrastructure-investments/"]. Accessed on October 9, 2018.

2 Todd Groundwater, 2019. *Water Supply Assessment: Golden State Water Company – Southwest, Inglewood Basketball and Entertainment Center.* July 2019.

TABLE 3.15-2
HISTORICAL GROUNDWATER SUPPLY BY AQUIFER (AFY)

Water Supply	Source	2010	2011	2012	2013	2014	2015
Groundwater	Central Subbasin in the Coastal Plain of Los Angeles Groundwater Basin	3,230	3,260	3,250	2,920	2,861	430
Groundwater	West Coast Subbasin in the Coastal Plain of Los Angeles Groundwater Basin	13,843	13,116	12,732	12,738	13,333	5,484
Groundwater	**Total**	**17,073**	**16,376**	**15,982**	**15,658**	**16,194**	**5,914**

SOURCE: Todd Groundwater, 2019. *Water Supply Assessment: Golden State Water Company – Southwest, Inglewood Basketball and Entertainment Center*. July, 2019. Table 8b [EIR Appendix M].

West Basin Municipal Water District

As described in its most recent UWMP, WBMWD has an approximately 185-square mile service area and provides wholesale potable water to 17 cities through three investor-owned utilities, four municipal water departments and one county waterworks district, in southwest Los Angeles County. WBMWD supplies recycled water to over 400 customer meter connections for municipal, commercial and industrial use as well as for injection into the West Coast Basin Seawater Barrier to halt seawater intrusion and replenish the WCGB aquifers.[3]

WBMWD has been able to support the diversification of supplies available to its customer agencies by providing access to imported water supplies from Metropolitan as well as through the development of recycled water supplies. These supplies are served directly to its customer agencies and indirectly as the replenishment supplies necessary to maintain groundwater production. WBMWD is projected to increase current recycled water supplies as well as invest in over 20,000 acre-feet per year (AFY) of ocean water desalination supply. In combination with additional conserved supply through water use efficiency programs, imported water use is expected to be reduced significantly by 2040, just over 50 percent now to less than 40 percent, as a percentage of WBMWD's overall annual supply deliveries.

Central Basin Municipal Water District

CBMWD was established in 1952 to provide access to imported water as an alternative to groundwater. CBMWD joined Metropolitan in 1954 to purchase, on a wholesale level, imported potable water for resale to cities, mutual water companies, investor-owned utilities, water districts and private water companies in the region. In addition, CBMWD supplies recycled water to the region for municipal, commercial and industrial use. With a diversified portfolio of water supplies (groundwater, imported and recycled water), CBMWD is able to serve its customer agencies and help protect the Central Groundwater Basin from overdraft conditions. Central

[3] West Basin Municipal Water District, 2016. *2015 Urban Water Management Plan*. p. 2-1.

Basin's service area is approximately 227 square miles and includes 24 cities and several unincorporated areas in southeast Los Angeles County.[4]

CBMWD has provided its retail agencies with supplemental supplies to reliably meet their demands. With diversification a key to a reliable future water supply, CBMWD has been able to support the diversification of supplies available to its customer agencies by providing access to imported water supplies from Metropolitan as well as through the development of recycled water supplies. These supplies are served directly to its retail agencies and indirectly as the replenishment supplies necessary to maintain groundwater production. Diversification of water resources is expected to continue over the next 25 years with recycled water system expansions along with increased conservation efforts including groundwater storage opportunities. CBMWD's dependence on imported sources is expected to continue to decrease with the expansion of these alternative sources.[5]

Metropolitan Water District of Southern California

Metropolitan is a public agency formed by a legislative act in 1928 to form a regional water cooperative "for the purpose of developing, storing, and distributing water" to the rapidly urbanizing areas of Southern California[6] As a wholesaler, Metropolitan has no retail customers, and distributes treated and untreated water directly to its 26 member agencies, including the City. Some member agencies, provide retail water service, while others provide water to the local area as wholesalers; some member agencies provide water both as a retailer and a wholesaler. These member agencies and sub agencies provide water for nearly 19 million people across six Southern California counties. Metropolitan is governed by a 38-member Board of Directors made up of representatives from each of Metropolitan's member agencies.

Metropolitan's service area encompasses the Southern California coastal plain and covers nearly 5,200 square miles, including portions of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura Counties. Notably, Metropolitan's service area contains only 13 percent of the land area of those counties but nearly 90 percent of the county populations. Metropolitan provides 45 to 60 percent of all municipal, industrial, and agricultural water used in its service area.

Water Sources

Imported Surface Water

Metropolitan draws imported water supplies from the Colorado River through the Colorado River Aqueduct (CRA), which it owns and operates; from Northern California via its participation in the State Water Project (SWP); and also from storage facilities and agreements, water system programs, and transfer arrangements. Imported water from the CRA and SWP is treated prior to distribution to its 26 member agencies.

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4 Central Basin Municipal Water District, 2016. *2015 Urban Water Management Plan*. p. 1-7.
5 Central Basin Municipal Water District, 2016. *2015 Urban Water Management Plan*. p. 3-1.
6 Metropolitan Water District of Southern California, 2016. *Integrated Resources Plan*, 2015 Update p. ES-VI; 2005. *Regional Urban Water Management Plan*, p. I-3.

CBMWD and WBMWD are two of Metropolitan's member agencies. They are large wholesale purveyors of water in the central and west portions of Los Angeles County that purchase imported surface water supply from Metropolitan and retail this water to their respective retail agencies. Imported surface water is delivered through purchase order agreements. Long-term purchase order agreements are contract vehicles that establish water supply terms and conditions between Metropolitan and its member agencies. Purchase orders[7] are voluntary agreements that establish both an obligation to purchase a minimum quantity of imported water over a 10-year term, also known as a Purchase Commitment, and an annual limit that allows the member agency to purchase water at the lower Tier 1 rate (Tier 1 Maximum) while encouraging local supply development.

Prior to 2014, GSWC and other retail agencies entered into 10-year purchase agreements with both wholesale agencies. GSWC had 5-year purchase agreements with WBMWD and CBMWD that were effective January 1, 2008, through December 31, 2012. The purchase agreements were extended an additional two years to December 31, 2014. The purchase agreements were both based on a two-tier rate structure: Tier 1 for quantities purchased within the Tier 1 allocation and Tier 2 for supply purchases in excess of the Tier 1 quantity. In November 2014, Metropolitan approved a new 10-year purchase order that provides a framework for individual Purchase Agreements between the member agencies and their water retailers.[8] Effective January 1, 2015, both CBMWD and WBMWD entered into new 10-year purchase agreements with Metropolitan that run through December 31, 2024. For the first 5 years of the new purchase agreement terms, WBMWD staff recommended against entering into new purchase agreements with its customer agencies including GSWC.

During the term of the original Purchase Order with Metropolitan, WBMWD executed "Purchase Agreements" with each of the retail water agencies to protect against the potential financial risk to WBMWD of purchasing imported water at the higher Tier 2 rate. Instead of encumbering its member agencies with another 10-year agreement, WBMWD offered consecutive 5year agreements with its retail agencies. In the previous contractual terms, WBMWD met its Purchase Commitment with Metropolitan and did not exceed its Tier 1 maximum in any year of the original Purchase Order. As a result of not exceeding its Tier 1 maximum in any year, for the first five years of the new Purchase Order term, WBMWD staff recommends not entering into agreements with its retail agencies.

WBMWD staff determined its Purchase Commitment with Metropolitan is attainable given the flexible terms that allows the commitment to be met cumulatively by the end of the Purchase Order term (over 10 years), and that allow an appeal for the unmet commitment that could result from local resource production such as recycled water brought on-line after 2015. With this determination, WBMWD staff concluded that there was no reasonable risk of WBMWD

7 The Purchase Order establishes contractual conditions between Metropolitan and its 26 member agencies. The Purchase Order provides a framework for individual Purchase Agreements between the member agencies and their water retailers.

8 Imported Water Purchase Order Agreement, December 2014, WBMWD Agenda Item 22.

exceeding the Tier 1 Maximum during the term of the Purchase Order. WBMWD staff therefore concluded that the administrative burden of executing and administering agreements with every customer agency was no longer justified.[9] However, at the 5-year mark, WBMWD staff will reevaluate the need to have purchase order agreements with the retail agencies with which it contracts. As noted in WBMWD Resolution 22 on December 16, 2014, this change was not unusual as several other Metropolitan member agencies did not have purchase order agreements with their retail agencies during the previous 12-year period. CBMWD also did not enter into purchased water agreements with its retail agencies but instead staff recommended a Tier 1 budget for each agency establishing annual Tier 1 water purchase limits. These limits are shared by all of GSWC's systems served by CBMWD.

GSWC purchases treated surface water purchased from WBMWD and CBMWD. GSWC takes delivery of imported surface water through thirteen water connections: two with CBMWD for maximum supply of 18,057 AFY and eleven with WBMWD for a maximum supply of 76,020 AFY. Combined, these connections have a total delivery capacity of 83,304 AFY.[10]

Groundwater

Regional

Groundwater sources account for about 90 percent of the local water supplies, which are found in many basins throughout the Southern California region and provide an annual average total production of about 1.35 million AFY. Groundwater within the underlying water-bearing units comes from natural recharge from the percolation of rainfall and stream runoff and active recharge from spreading and injection of captured stormwater, recycled water, and imported water. In certain major drainage areas, runoff is retained in flood control reservoirs and released into spreading basins for percolation into the ground. In Los Angeles County, many groundwater recharge facilities located along the upper reaches of the Los Angeles River and San Gabriel River systems provide recharge to San Fernando, Raymond, Main San Gabriel, Central, and West Coast groundwater basins.[11]

Almost all major groundwater basins in Southern California are either adjudicated or managed by special districts or agencies. Over 90 percent of the groundwater used in Metropolitan's service area is produced from adjudicated or managed groundwater basins. Adjudicated basins in the region include: Raymond Basin, Upper Los Angeles River Area basins (which include San Fernando, Sylmar, Verdugo, and Eagle Rock Basins), Main San Gabriel Basin, Central Basin, West Coast Basin, Six Basins, Chino Basin, and Cucamonga Basin.[12]

Central Groundwater Basin. The Central Basin underlies approximately 277 square miles in the southeastern part of the of the Los Angeles Coastal Plain. The Central Basin is bounded on the north by the Hollywood Basin and the Elysian, Repetto, Merced, and Puente Hills; to the east by the Los Angeles County/Orange County line; and to the south and west by the Newport-

[9] Imported Water Purchase Order Agreement, December 2014, WBMWD Agenda Item 22.
[10] Golden State Water Company, 2016. *2015 Urban Water Management Plan – Southwest.* p. 6-1.
[11] Metropolitan Water District of Southern California, 2016. *2015 Urban Water Management Plan* p. A.2-4.
[12] Metropolitan Water District of Southern California, 2016. *2015 Urban Water Management Plan* p. A.2-4.

Inglewood Uplift, a series of discontinuous faults and folds that form a prominent line of northwest-trending hills including the Baldwin Hills, Dominguez Hills, and Signal Hill. Twelve aquifers underlie the Central Groundwater Basin. The Central Groundwater Basin is divided into four sections—the Los Angeles Forebay, the Montebello Forebay, the Whittier Area, and the Pressure Area.[13,14]

Central Basin storage capacity is estimated to be approximately 13.8 million AF.[15] The two forebays represent areas of unconfined aquifers that allow percolation of surface water down into the deeper production aquifers to replenish the rest of the basin. The Whittier Area and Pressure Area are confined aquifer systems that receive relatively minimal recharge from surface water, but are replenished from the upgradient forebay areas or other groundwater basins.

The Montebello Forebay in the northeast corner of the basin straddles the San Gabriel River and the Rio Hondo (a tributary of the Los Angeles River) at the point where they emit from the Whittier Narrows. The Montebello Forebay lies directly downstream of the San Gabriel Valley. The Los Angeles Forebay straddles the Los Angeles River. Due to the concrete lining of the Los Angeles River and the lack of spreading facilities, only minor amounts of water are recharged into the Central Groundwater Basin through the Los Angeles River system.

The Central Groundwater Basin is adjudicated and based upon Watermaster services under two Court Judgements: The Third Amended Central Basin Judgement, managed by the Central Basin Water Rights Panel and the Long Beach Judgement, which is managed by the San Gabriel River Watermaster.

Long Beach Judgment - San Gabriel River Watermaster. Entered in 1965, the Long Beach Judgment provides an adjudication of Upper and Lower Areas on the San Gabriel River supply through Whittier Narrows and is administered by the court appointed San Gabriel River Watermaster. The water supply of the San Gabriel River System is divided at Whittier Narrows, the boundary between San Gabriel Valley upstream and Los Angeles County downstream. The area downstream from Whittier Narrows receives a quantity of water from the San Gabriel River system. This includes water exported to the Lower Area, usable surface flow and subsurface flow at Whittier Narrows. The San Gabriel River Watermaster monitors and reviews activities affecting water supply in the river system, performs operational repairs as deemed necessary and compiles data to determine usable water and make-up water. Four agencies that include the Upper San Gabriel Valley Municipal Water District, Central Basin, the City of Long Beach and the City of Compton rely on the San Gabriel River Watermaster to cover hydrologic analyses, data collection, field inspection, report calculations, conservancy and master planning.[16]

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13 Central Basin Municipal Water District, 2016. *2015 Urban Water Management Plan*.
14 Department of Water Resources, Published January 2018. Coastal Plain of Los Angeles Groundwater Basin 4-11.04. California's Groundwater Bulletin 118.
15 Todd Groundwater, 2019. *Water Supply Assessment: Golden State Water Company – Southwest, Inglewood Basketball and Entertainment Center*. July 2019.
16 Central Basin Municipal Water District, 2016. *2015 Urban Water Management Plan*.

Third Amended Central Basin Judgement – Central Basin Water Rights Panel. The production of groundwater from the Central Groundwater Basin underwent adjudication in the early 1960s, which developed an allowable pumping allocation at 217,367 AFY. In 2014, a Third Amended Judgement was enacted, which allowed development of a Central Basin Water Rights Panel to govern issues pertaining to parties with groundwater pumping rights. The Third Amended Judgement also established the Water Replenishment District of Southern California (WRD) as the new Watermaster, which replaced the California DWR in the prior role.

West Coast Basin. The West Coast Basin covers approximately 140 square miles and is bounded on the north by the Baldwin Hills and the Ballona Escarpment (a bluff just south of Ballona Creek), on the east by the Newport-Inglewood Uplift, to the south by San Pedro Bay and the Palos Verdes Hills, and to the west by Santa Monica Bay.[17]

In the West Coast Basin, aquifers are generally confined and receive the majority of their natural replenishment from adjacent groundwater basins or from the Pacific Ocean (seawater intrusion). Both the Newport-Inglewood Uplift and the Charnock Fault (in the West Coast Basin) are partial barriers to groundwater flow, causing differences in water levels on opposite sides of each fault system. Groundwater flows between the West Coast and Central Basins based on the groundwater elevations on either side of the Newport-Inglewood Uplift. The storage capacity of the West Coast Basin is estimated to be approximately 6.5 million AF.

In the early 1940s, extensive over pumping of the West Coast Basin had led to critically low groundwater levels, resulting in seawater intrusion along the coast, serious overdraft, and the decline of water levels. Annual pumping prior to the adjudication of groundwater rights in the early 1960s reached levels as high as 94,100 AF. This situation precipitated an adjudication that limits the allowable extraction that could occur in any given year and assigned water rights to West Coast Basin pumpers. The adjudication for the West Coast Basin was set at 64,468.25 AFY. This amount was set higher than the natural replenishment amounts, creating an annual deficit known as the "Annual Overdraft." In order to combat this Annual Overdraft, the WRD purchases and recharges additional water to make up for the overdraft.[18]

In December 2014, the Superior Court granted a motion by WRD, City of Inglewood, City of Long Beach, City of Manhattan Beach, City of Los Angeles, City of Torrance, California Water Service, GSWC and other parties to amend the West Coast Basin Judgment to establish a legal framework for the storage and extraction of stored water in the West Coast Basin. The Judgment Amendment will permit the storage of up to 120,000 AF, which is the available, safe storage capacity of that basin. The legal framework permits a groundwater pumper with adjudicated rights to store water and subsequently extract that stored water without the extraction counting against its water rights and without having to pay the Replenishment Assessment (RA). The Judgment Amendment makes possible the storage of surplus" imported water in the rare instances

[17] West Basin Municipal Water District, 2016. *2015 Urban Water Management Plan*.
[18] West Basin Municipal Water District, 2016. *2015 Urban Water Management Plan*.

when it is available for use in the more frequent instances when it is not, further enhancing the region's water supply reliability.

Pursuant to the Judgment Amendment, WRD assumed administrative Watermaster duties from the California DWR on July 1, 2015.[19]

Golden State Water Company

GSWC can pump and use groundwater from both the WCGB and the Central Subbasin. CBMWD and WBMWD manage groundwater underlying their respective service areas. Retail agencies within CBMWD and WBMWD service areas own and operate their groundwater wells but are subject to groundwater extraction limits also known as Allowed Pumping Allocation (APA). These groundwater pumping limitations were established through court adjudication processes as described below.

In 1961, due to serious overdraft of the WCGB, water levels declined, groundwater was lost from storage, and seawater intruded into the groundwater basin. To remedy this problem, the courts adjudicated the basin to limit pumping, and the total WCGB adjudication was set at 64,468 AFY. The City of Inglewood's WCGB adjudicated APA is 4,449 AFY per year, and the GSWC's adjudicated annual limit is 7,502 AFY.

Similar to the WCGB, the Central Basin was adjudicated by the courts in 1965 due to over pumping and a decline in water levels. The Central Basin adjudication was originally set at 267,900 AFY, and adjusted to 217,367 AFY to impose stricter control.[20] The GSWC's Central Basin adjudicated annual pumping limit is 16,439 AFY.[21]

The annual groundwater pumping limit for each basin is the allotted amount for all GSWC systems, not just the Southwest System. However, the total allowable pumping allocation can be adjusted based on carryover rules and additional water can be leased from other water rights holders in the Central Basin.

The California DWR estimated groundwater for urban use in the WCGB at 51,673 AFY. Estimates of urban groundwater extraction in the Central Basin are significantly higher at 204,335 AFY. The Salt and Nutrient Management Plan (SNMP) for the Central Basin and West Coast Basin[22] documents that average salt and nutrient concentrations in the WCGB groundwater do not meet water quality objectives of the Regional Water Quality Control Board (RWQCB) because of historical seawater intrusion. However, existing and planned implementation measures

19 West Basin Municipal Water District, 2016. *2015 Urban Water Management Plan*.
20 Water Replenishment District of Southern California, 2016. *Groundwater Basins Master Plan*. Available: [HYPERLINK "https://www.wrd.org/sites/pr/files/GBMP_FinalReport_Text%20and%20Appendicies.pdf"]. Accessed October 3, 2018. p. 1-4.
21 Golden State Water Company, 2016. *2015 Urban Water Management Plan – Southwest*. p. 7-6.
22 Todd Groundwater, 2019. *Water Supply Assessment: Golden State Water Company – Southwest, Inglewood Basketball and Entertainment Center*. July, 2019.

(including the barrier projects, desalters, recharge projects and other programs) are designed to ensure that salt and nutrient levels in groundwater will achieve the objectives in the future.

GSWC operates and maintains ten groundwater well sites; two in the Central Basin and eight in the WCGB. The groundwater wells for the Southwest System in the WCGB meet all current state and federal drinking water standards; however there are impacts from manganese (Mn), hydrogen sulfide (H_2S), and iron, which are treated as needed at the well-head to insure compliance with drinking water standards.[23]

Regional Agencies Managing West Coast Groundwater Basin and Central Basin
As part of the adjudication process for these two groundwater basins, the WRD was created to manage, regulate, and replenish the Central Basin and WCGB. WRD along with the Los Angeles County Department of Public Works (LACDPW), and CBMWD and WBMWD, work with the water producers to ensure that the APA is available to the pumpers in both basins.

LACDPW operates and maintains the Rio Hondo and San Gabriel spreading grounds in the Montebello forebay. LACDPW diverts and recharges storm flows from the Rio Hondo and San Gabriel Rivers, highly treated wastewater from the Sanitation Districts of Los Angeles County (LACSD) (Whittier and San Jose Wastewater Reclamation Plants), and purchased water from Metropolitan (including both SWP water and Colorado River water). LACDPW, in conjunction with Orange County Water District, WRD, City of Long Beach and GSWC, operates and maintains the Alamitos Barrier Project to recharge imported water into this injection barrier, which is designed to prevent seawater intrusion into the Central Basin.

WRD collects a replenishment assessment from all groundwater producers in the Central Basin to pay for water supplies to replenish the Basin. Annually, by statute, WRD is required to determine replenishment requirements. WRD pays CBMWD for imported and recycled water for recharge into the Central Basin.

In the West Coast Basin, LACDPW operates and maintains the West Coast Barrier Project and the Dominguez Gap Barrier Project. Both of these projects involve monitoring groundwater levels at the coast line, and injecting groundwater as necessary to establish a groundwater "barrier" to prevent seawater intrusion. LACDPW injects a combination of equal parts of highly treated wastewater from the WBMWD's water recycling plant located in El Segundo and imported water from Metropolitan (including both SWP water and Colorado River water).

WBMWD is expanding the West Basin recycled water plant to allow up to 100 percent recycled water injection into the West Coast Basin Barrier Project. LACDPW injects imported water from Metropolitan (including both SWP water and Colorado River water) into the Dominguez Gap Barrier Project. The project currently is permitted for up to 6 million gallons per day (MGD) of recycled water to be injected into the barrier with a 50 percent blend with potable water over a

[23] Golden State Water Company, 2016. *2015 Urban Water Management Plan – Southwest.* p. 6-5.

60-month running average. Plans are underway to increase the permitted amount to 100 percent by 2018.

WRD collects a replenishment assessment from all groundwater producers in the Basin to pay for water supplies to replenish the Basin, the Basin is replenished by injecting water to establish and maintain the groundwater barriers described above. WRD determines replenishment requirements annually. WRD pays WBMWD for imported and recycled water for recharge into the West Coast Basin.

Recycled Water (Non-Potable)

The GSWC purchases non-potable recycled water from WBMWD.[24] WBMWD acquires, controls, distributes, and sells recycled water to several cities, agencies, and customers in the greater Los Angeles area. The GSWC Southwest System currently receives recycled water from WBMWD as part of the District's West Basin Recycled Water Project. The West Basin Recycled Water Project collects secondary effluent from the Hyperion Waste Water Treatment Plant and treats it to meet Title 22 recycled water standards at WBMWD's West Basin Water Recycling Facility in El Segundo, California. The recycled water purchased is used throughout the region for beneficial uses such as landscape irrigation, industrial applications (including cooling water and boiler feeder water), and other purposes such as groundwater injections to control seawater intrusion. GSWC is pursuing opportunities to increase its use of recycled water as part of its overall water supply portfolio.

Existing Water Demand

Golden State Water Company Southwest System Service Area

Existing water demand within GSWC's Southwest System service area is primarily for residential uses (both single-family and multi-family), which makes up 60 to 70 percent of the total annual demand, but also includes commercial, industrial, institutional/governmental, irrigation, agricultural uses and more.[25] During preparation of its current 2015 UWMP, GSWC analyzed water use within the Southwest System service area since 1994 to assess historical water usage trends. Connection and water sales data were grouped into eight DWR use categories as shown in **Table 3.15-3**.

GSWC considers the period of 2008 through 2013 to be representative of the Southwest System's average water demand pattern as GSWC implemented tiered rates beginning in 2008. Water use for recent years 2014-2015 is considered atypical because it reflects mandatory conservation imposed by the Governor's drought emergency declarations. Water use began to decline in the service area in 2007 leading to a decline of approximately 19 percent from 2008 to 2015, from a high of approximately 38,500 AFY to a low of approximately 27,000 AFY. As noted in GSWC UWMP (p. 4-3), "the recent decline in water use is not fully understood, but may be the result of several

[24] Golden State Water Company, 2016. *2015 Urban Water Management Plan – Southwest.* p. 6-12.
[25] Golden State Water Company, 2016. *2015 Urban Water Management Plan – Southwest.* p. 4-2 through 4-5.

factors including implementation of tiered water rates, changes in plumbing codes, the economic downturn beginning in 2008 and the statewide drought that extended from 2012 to 2016."

TABLE 3.15-3
DEMANDS FOR POTABLE AND RAW WATER WITHIN GSWC SOUTHWEST SYSTEM BY USE CATEGORY

	2015 Actual	
Use Type	**Level of Treatment When Delivered**	**Volume (AFY)**
Single Family	Drinking Water	9,027
Multi-Family	Drinking Water	8,784
Commercial	Drinking Water	4,133
Industrial	Drinking Water	1,770
Institutional/Governmental	Drinking Water	904
Landscape	Drinking Water	672
Agricultural irrigation	Drinking Water	378
Other	Drinking Water	10
Losses	Drinking Water	1,262
Total		**26,940**

NOTES:
1. Potable demands only. Raw water is not used within the Southwest System.
2. 2015 losses are preliminary and estimated as the volume of potable water entering the distribution system minus metered uses.

SOURCE: Golden State Water Company, *Final Report, 2015 Urban Water Management Plan – Southwest*, Table 4-1, p. 4-2.

As shown in **Table 3.15-4**, Historical Water Demand within GSCW Southwest System by Use Category, total water supply delivered to customers in 2010 was 28,013 AFY and in 2015 was slightly less at 27,333 AFY (Appendix M, Table 6). The largest reductions in water use between 2010 and 2015, as a percent, occurred in the single-family residential and landscape irrigation customer type categories. GSWC projected a slight increase in potable water demand for 2017 through 2019 to 29,823 AFY, as reported in its report filing to the State Water Resources Control Board (SWRCB) in June 2016 to comply with emergency conservation regulations.[26]

Project Site

Under existing conditions, the Project Site includes eight parcels currently occupied by various uses including a fast-food restaurant, a hotel, warehouse and light manufacturing facilities. Actual water usage for these parcels was not available from GSWC, but water use was estimated by Stetson Engineers to be approximately 7.6 AFY.[27] The estimate was based on water use records of similar establishments in the City of Lakewood, City of Inglewood, and City of Long Beach.

[26] From GSWC website under Drought Tab: On June 22, 2016, Golden State Water submitted its self-certification data on local water supply, anticipated demand and conservation strategies to the SWRCB to comply with the revised emergency regulations that were issued by the State on May 18, 2016. This data considers a three-dry-year scenario based on hydrology of the 2012-13, 2013-14 and 2014-15 water years and demand from 2013-14.

[27] Stetson Engineers, 2019. Review of Water Demands Memo.

TABLE 3.15-4
HISTORICAL WATER DEMAND BY WATER USE SECTORS (AFY)

Customer Type	Actual Water Demand (AFY)	
	2010	2015
Single-Family Residential	10,422	9,027
Multi-Family Residential	9,367	8,784
Commercial	4,425	4,133
Industrial	1,921	1,770
Institutional/Governmental	873	904
Landscape Irrigation	755	672
Agricultural	4	378
Other	27	10
Losses	—[a]	1,262
Total Potable Demand	**27,794**	**26,940**
Recycled Water Demand	219	393
TOTAL WATER CONSUMPTION	**28,013**	**27,333**

NOTE:
[a] Losses not calculated in GSWC 2010 UWMP.

SOURCE: Todd Groundwater, 2019. *Water Supply Assessment: Golden State Water Company – Southwest, Inglewood Basketball and Entertainment Center*. July 2019. Table 6 [EIR Appendix M].

Existing Water Infrastructure

Golden State Water Company Southwest System Service Area

GSWC operates and maintains ten active groundwater well sites; two in the Central Basin and eight in the WCGB. These wells serve multiple GSWC service areas including the Southwest System. Imported water supplied to GSWC from Metropolitan is delivered through two connections with CBMWD and eleven connections with WBMWD and finally to GSWC's conveyance system for distribution within its Southwest System. The Southwest System service area is comprised of four pressure zones – the Lawndale-Gardena 250 Hydraulic Grade Line (HGL) Gradient, the Dominguez 310 HGL Gradient, the Belhaven 310 HGL Gradient, and the Athens-Normandie 350 HGL Gradient. The proposed project location is located within Southwest System's largest Lawndale-Gardena 250 HGL Gradient service area. Lawndale-Gardena 250 HGL Gradient has redundant water supply sources and capacity through multiple Metropolitan connections and GSWC's water supply wells.

Metropolitan

Metropolitan operates and maintains five water treatment facilities: the F.E Weymouth Treatment Plant in La Verne; the Robert B. Diemer (Diemer) Treatment Plant in Yorba Linda; the Joseph Jensen (Jensen) Treatment Plant in the northwest end of San Fernando Valley; the Henry J. Mills Treatment Plant in the City of Riverside and the Robert A. Skinner Treatment Plant near Hemet. Metropolitan treats imported water at each of these water treatment plants prior to transmission

and distribution to its member agencies throughout the Los Angeles basin, Orange County, and San Diego County. CBMWD, and WBMWD receive treated water from either the Diemer Treatment Plant or the F.E Weymouth Treatment Plant.

The Diemer Filtration Plant has an operating capacity of 550 MGD and at times delivers up to 400 MGD,[28] while the F.E Weymouth Filtration Plant currently has an operating capacity of 520 MGD.[29] The 10-year average (2009–2018) daily treatment flow at Diemer Treatment Plant is 220 MGD, while daily treatment flow at F.E. Wymouth is 205 MGD.[30]

Project Site

Arena Site

The Arena Site is the central part of the Project Site that would include the Arena, public plaza, outdoor stage, community space, practice facility, retail/restaurants, employee access pavilion, and a parking structure. The Arena Site currently includes a fast food restaurant, motel, a warehouse and light manufacturing facility, a commercial catering business, a City groundwater well, and vacant commercial uses. Existing water lines are located within West Century Boulevard north of the Arena Site, and include 8-inch-, 36-inch-, and 54-inch-diameter lines. South Prairie Avenue includes an 8-inch-diameter water line and a 36-inch-diameter reclaimed water pipeline. West 102nd Street bisects the Arena Site in an east–west direction, and includes a 6-inch- and 27-inch-diameter water line.

West Parking Garage Site

The West Parking Garage Site is part of the Project Site west of the Arena Site. The West Parking Garage Site is currently vacant, with West 101st Street bisecting the site in an east–west direction. This portion of the Project Site includes an 8-inch-diameter water line within West 101st Street and a 27-inch-diameter water line within West 102nd Street. This portion of the Project Site also utilizes the abovementioned 8-inch-, 36-inch-, and 54-inch-diameter water line within West Century Boulevard.

East Transportation and Hotel Site

The East Transportation and Hotel Site is an element of the Project Site that is located east of the Arena Site and would include a hotel and parking structure and transportation hub. The East Transportation and Hotel Site is currently vacant. An existing water line is located within South Doty Avenue. In addition, West 102nd Street includes 27-inch- and 6-inch-diameter water lines. This portion of the Project Site also is proximate to the abovementioned 8-inch, 36-inch, and 54-inch-diameter water lines within West Century Boulevard.

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28 Metropolitan Water District of Southern California, Robert B. Diemer Treatment Plant [HYPERLINK "http://mwdh2o.com/AboutYourWater/Water-Quality/robert-b-diemer/Pages/default.aspx"]

29 Metropolitan Water District of Southern California, F.E Weymouth Treatment Plan, [HYPERLINK "http://mwdh2o.com/AboutYourWater/Water-Quality/F-E-Weymouth/Pages/default.aspx"].

30 Metropolitan Water District of Southern California, 10-year average daily treatment flow. Pers. Comm. Media Relations, July 31, 2019.

Well Relocation Site

The Well Relocation Site is located east of the Arena Site and would contain a city-owned and operated potable water well. The Well Relocation Site is currently vacant. This portion of the Project Site is adjacent to a 6-inch- and a 27-inch-diameter water line within West 102nd Street.

3.15.2 Adjusted Baseline Environmental Setting

Section 3.15, Utilities and Service Systems assumes the Adjusted Baseline Environmental Setting as discussed in Section 3.0, Introduction to the Analysis. Accordingly, the changes to water supply associated with these developments within the Hollywood Park Specific Plan (HPSP) area are considered as part of the Adjusted Baseline.

3.15.3 Regulatory Setting

Federal

Clean Water Act

The federal Clean Water Act (CWA) establishes regulatory requirements for potable water supplies including raw treated water quality criteria. The United States Environmental Protection Agency (US EPA) established primary drinking water standards in CWA section 304. States are required to ensure that potable water retailed to the public meets these standards. Standards for a total of 81 individual constituents have been established under the federal Safe Drinking Water Act (SDWA), as amended in 1985, described further below. The US EPA may add additional constituents in the future.

The GSWC is required to monitor water quality and conform to the regulatory requirements of the CWA.

Safe Drinking Water Act

Enacted in 1974 and implemented by the US EPA, the federal SDWA imposes water quality and infrastructure standards for potable water delivery systems nationwide. The primary standards are health-based thresholds established for numerous toxic substances. Secondary standards are recommended thresholds for taste and mineral content.

State

State Drinking Water Act

The 2014 transfer of the California Department of Public Health (CDPH) Drinking Water Program (DWP) to the SWRCBbrought with it not only the primary enforcement authority to enforce federal and state SDFAs, and the regulatory oversight of ~8,000 public water systems throughout California, but also the responsibility for completing the next Safe Drinking Water Plan.

With the transfer of DWP to the SWRCB, while the role and responsibility remained unchanged, the name was changed to the Division of Drinking Water (DDW). DDW has been granted

primary enforcement responsibility for the federal SDWA. California enacted its own SDWA. The DDW is responsible for implementing the federal SDWA and its updates, as well as California statutes and regulations related to drinking water. As part of their efforts, the DDW inspects and provides regulatory oversight for public water systems within California. The RWQCB also has the responsibility for protecting the beneficial uses of the state's waters, including groundwater, and these include municipal drinking water supply, as well as various other uses.

Title 22 of the California Administrative Code establishes DDW authority and stipulates drinking water quality and monitoring standards. These standards are equal to, or more stringent than, the federal standards. Public water system operators are required to monitor their drinking water sources regularly for microbiological, chemical, and radiological contaminants to show that drinking water supplies meet the regulatory requirements listed in Title 22 of the California Code of Regulations (CCR) as primary maximum contaminant levels (MCLs).

Recycled Water Policy (Policy for Water Quality Control for Recycled Water)

The Recycled Water Policy was first adopted in 2009, and then subsequently amended in 2013 and 2018. The purpose of the Recycled Water Policy is to increase the use of recycled water from municipal wastewater sources that meets the definition in Water Code section 13050(n), in a manner that implements federal and state water quality laws. More specifically, recycled water is the reuse of treated wastewater derived from municipal sources (i.e., water that is covered under CCR Title 22, Water Recycling Criteria). The Recycled Water Policy provides goals for recycled water use in California, guidance for use of recycled water that considers protection of water quality, criteria for streamlined permitting of recycled water projects, and requirements for monitoring recycled water for constituents of emerging concern (CECs).

The 2018 amendment codified the following:

(1) Removes statewide recycled water mandates;

(2) Sets narrative goals for the production and use of recycled water;

(3) Establishes treated wastewater and recycled water reporting requirements statewide;

(4) Clarifies the process for recycled water project proponents to comply with California Water Code (CWC) section 1211 for wastewater change petitions;

(5) Updates requirements for salt and nutrient management planning;

(6) Improves consistency in permitting of recycled water projects by encouraging the use of statewide water reclamation requirements for non-potable recycled water use, removing streamlined permitting criteria for landscape irrigation recycled water projects, and adding permitting guidance for reservoir augmentation projects, updates monitoring requirements for CECs in recycled water used for groundwater recharge and reservoir water augmentation; and

(7) Incorporates other substantive and non-substantive changes.

Title 22

The CWC requires the DDW to establish water reclamation criteria. In 1975, the DDW prepared Title 22 regulations to satisfy this requirement. Title 22 regulates production and use of reclaimed water in California by establishing three categories of reclaimed water: primary effluent, secondary effluent and tertiary effluent. Primary effluent typically includes grit removal and initial sedimentation or settling tanks. Secondary effluent is adequately disinfected, oxidized effluent, which typically involves aeration and additional settling basins. Tertiary effluent is adequately disinfected, oxidized, coagulated, clarified, filtered effluent which typically involves filtration and chlorination. In addition to defining reclaimed water uses, Title 22 also defines requirements for sampling and analysis of effluent and specifies design requirements for treatment facilities.

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 project.

Water Supply Assessments (California Water Code Sections 10910 through 10915)

Senate Bill (SB) 610 was adopted in 2001 and reflects the State's awareness of the need to incorporate water supply and demand analysis at the earliest possible stage in the land use planning process. SB 610 amended the statutes of the Urban Water Management Planning Act, as well as the CWC section 10910 et seq.

Water supply planning under CWC sections 10910–10915 requires reviewing and identifying adequate available water supplies necessary to meet the demand generated by a project, as well as the cumulative demand for the general region over the next 20 years, under a range of water conditions including normal, dry and multiple dry year conditions. This information is typically found in the current water supplier's UWMP. SB 610 requires the identification of the public water supplier. Under SB 610, a WSA need only be prepared if a project exceeds thresholds of development identified, thereby relieving projects of less significance from the requirements of the bill. Although it is unclear whether the Proposed Project is required to prepare a WSA pursuant to CWC section 10912,[31] a WSA was prepared by Todd Groundwater for the Proposed Project and is included as Appendix M in this Draft EIR.

[31] CWC section 10912 does not specifically identify an arena or sports and entertainment venue as a use for which a WSA is required. Sections 10912(a)(2, 3, and 5) refer to industrial, retail, or office projects that employ more than 1,000 people. The Proposed Project is not exclusively one of those uses, and only employs more than 1,000 persons when considering the event-related employment which are not full time jobs. Section 10912(a)(7) requires a WSA for "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." Based on an estimated 127 gpd identified in the 2015 GSWC UWMP, a 500 dwelling

Urban Water Management Planning Act

The California Urban Water Management Planning Act was established in 1983, which recognizes that the waters of the state are a limited and renewable resource, and that planning and implementation of water management programs can best be accomplished at the local level. One of the Act's primary goals is to encourage urban water suppliers to develop long range plans in an effort to ensure appropriate levels of reliability in their water service during normal, dry, and multiple dry years. Thus, in accordance with the Act, urban water suppliers are required to develop water management plans to actively pursue the efficient use of available supplies. Specifically, the Act requires that urban water suppliers providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 AF of water annually prepare and adopt an UWMP. In accordance with this Act, GSWC has prepared an UWMP for the Southwest System every five years since 1985, with its most recent in 2015.

Senate Bill 7 of the Seventh Extraordinary Session of 2009

SB 1 (or SBX7 1) from the Extraordinary Legislative Session of the fall of 2009 established a statutory framework intended to achieve the co-equal goals of providing a more reliable water supply to California and restoring and enhancing the Sacramento-San Joaquin River Delta ecosystem. The co-equal goals will be achieved in a manner that protects the unique cultural, recreational, natural resource, and agricultural values of the Delta. Specifically, SB 1:

- Created the Delta Stewardship Council, consisting of seven members with diverse expertise providing a broad statewide perspective. The Chairperson of the Delta Protection Commission (DPC) is a permanent member of the Council. The Council was also tasked with:
    a. Developing a Delta Plan to guide state and local actions in the Delta in a manner that furthers the co-equal goals of Delta restoration and water supply reliability
    b. Developing performance measures for the assessment and tracking of progress and changes to the health of the Delta ecosystem, fisheries, and water supply reliability
    c. Determining if a state or local agency's project in the Delta is consistent with the Delta Plan and the co-equal goals, and acting as the appellate body in the event of a claim that such a project is inconsistent with the goals
    d. Determining the consistency of the Bay-Delta Conservation Plan (BDCP) with the co-equal goals
- Ensured that the Department of Fish and Wildlife and the SWRCB identify the water supply needs of the Delta estuary for use in determining the appropriate water diversion amounts associated with BDCP
    a. Establishes the Sacramento-San Joaquin Delta Conservancy to implement ecosystem restoration activities within the Delta. In addition to the restoration duties the Conservancy is required to:

unit project would generate a demand for approximately 211 AFY, more than double the estimated demand for the Proposed Project.

b. Adopt a strategic plan for implementation of the Conservancy goals

c. Promote economic vitality in the Delta through increased tourism and the promotion of Delta legacy communities

d. Promote environmental education about, and the public use of, public lands in the Delta

e. Assist in the preservation, conservation, and restoration of the region's agricultural, cultural, historic, and living resources

- Restructured the current DPC, reducing the membership from 23 to 15 members, and tasks DPC with the duties of:

  a. Adopting an economic sustainability plan for the Delta, which is to include flood protection recommendations to state and local agencies

  b. Submitting the economic sustainability plan to the Delta Stewardship Council for inclusion in the Delta Plan

- Appropriated funding from Proposition 84 to fund the Two-Gates Fish Protection Demonstration Program, a project in the central Delta, which will utilize operable gates for protection of sensitive species and management of water supply.

The following are key legislative findings from SB 1, now found in various provisions of the Water Code:

85002. The Legislature finds and declares that the Sacramento-San Joaquin Delta is a critically important natural resource for California and the nation. It serves Californians concurrently as both the hub of the California water system and the most valuable estuary and wetland ecosystem on the west coast of North and South America.

85004. The Legislature finds and declares all of the following:

(a) The economies of major regions of the state depend on the ability to use water within the Delta watershed or to import water from the Delta watershed. More than two-thirds of the residents of the state and more than 2 million acres of highly productive farmland receive water exported from the Delta watershed.

(b) Providing a more reliable water supply for the state involves implementation of water use efficiency and conservation projects, wastewater reclamation projects, desalination, and new and improved infrastructure, including water storage and Delta conveyance facilities.

85020. The policy of the State of California is to achieve the following objectives that the Legislature declares are inherent in the coequal goals for management of the Delta:

(a) Manage the Delta's water and environmental resources and the water resources of the state over the long term.

(b) Protect and enhance the unique cultural, recreational, and agricultural values of the California Delta as an evolving place.

(c) Restore the Delta ecosystem, including its fisheries and wildlife, as the heart of a healthy estuary and wetland ecosystem.

(d) Promote statewide water conservation, water use efficiency, and sustainable water use.

(e) Improve water quality to protect human health and the environment consistent with achieving water quality objectives in the Delta.

(f) Improve the water conveyance system and expand statewide water storage.

(g) Reduce risks to people, property, and state interests in the Delta by effective emergency preparedness, appropriate land uses, and investments in flood protection.

(h) Establish a new governance structure with the authority, responsibility, accountability, scientific support, and adequate and secure funding to achieve these objectives.

The legislation also recognizes, however, that Southern California should do more going forward to make the most of regionally available water resources:

85021. The policy of the State of California is to reduce reliance on the Delta in meeting California's future water supply needs through a statewide strategy of investing in improved regional supplies, conservation, and water use efficiency. Each region that depends on water from the Delta watershed shall improve its regional self-reliance for water through investment in water use efficiency, water recycling, advanced water technologies, local and regional water supply projects, and improved regional coordination of local and regional water supply efforts.

The Water Conservation Act of 2009 (SBx7 7), amended and repealed section 10631.5 of, to add Part 2.55 (commencing with section 10608) to Division 6 of, and repealed and added Part 2.8 (commencing with section 10800) of Division 6 of the CWC, relating to water. Specific text from CWC Part 2.55 for urban water suppliers as it relates to water conservation and water use efficiencies is listed below. The complete text for the Water Conservation Act of 2009 can be found at http://www.water.ca.gov/wateruseefficiency/sb7/.

Specifically, SBx7 7 from this Extraordinary Session requires each urban retail water supplier to develop urban water use targets to help meet the 20 percent reduction goal by 2020 (20x2020), and an interim water reduction target by 2015. Key elements of the CWC text are listed below:

It is the intent of the Legislature, by the enactment of this part, to do all of the following:

CWC Section 10608.4.

(a) Require all water suppliers to increase the efficiency of use of this essential resource.

(b) Establish a framework to meet the state targets for urban water conservation identified in this part and called for by the Governor.

(c) Measure increased efficiency of urban water use on a per capita basis.

(d) Establish a method or methods for urban retail water suppliers to determine targets for achieving increased water use efficiency by the year 2020, in accordance with the Governor's goal of a 20-percent reduction.

(e) Establish consistent water use efficiency planning and implementation standards for urban water suppliers and agricultural water suppliers.

(f) Promote urban water conservation standards that are consistent with the California Urban Water Conservation Council's adopted best management practices and the requirements for demand management in section 10631.

(g) Establish standards that recognize and provide credit to water suppliers that made substantial capital investments in urban water conservation since the drought of the early 1990s.

(h) Recognize and account for the investment of urban retail water suppliers in providing recycled water for beneficial uses.

(i) Require implementation of specified efficient water management practices for agricultural water suppliers.

(j) Support the economic productivity of California's agricultural, commercial, and industrial sectors.

(k) Advance regional water resources management.

CWC Section 10608.16.

(a) The state shall achieve a 20-percent reduction in urban per capita water use in California on or before December 31, 2020.

(b) The state shall make incremental progress towards the state target specified in subdivision (a) by reducing urban per capita water use by at least 10 percent on or before December 31, 2015.

CWC Section 10608.20.

(a) (1) Each urban retail water supplier shall develop urban water use targets and an interim urban water use target by July 1, 2011. Urban retail water suppliers may elect to determine and report progress toward achieving these targets on an individual or regional basis, as provided in subdivision (a) of section 10608.28, and may determine the targets on a fiscal year or calendar year basis.

(2) It is the intent of the Legislature that the urban water use targets described in subdivision (a) cumulatively result in a 20 percent reduction from the baseline daily per capita water use by December 31, 2020.

(b) An urban retail water supplier shall adopt one of the following methods for determining its urban water use target pursuant to subdivision (a):

- Method 1—Eighty percent of the water supplier's baseline per capita potable water use

- Method 2—Per capita daily water use estimated using the sum of performance standards applied to indoor residential use; landscape area water use, and commercial, industrial, and institutional uses

- Method 3—Ninety-five percent of the applicable state hydrologic region target as stated in the state's draft 20x2020 Water Conservation Plan.

- Method 4—Draft Provisional Target Method 4 (January 2011)

CWC Section 10608.24.

(a) Each urban retail water supplier shall meet its interim urban water use target by December 31, 2015.

(b) Each urban retail water supplier shall meet its urban water use target by December 31, 2020.

CWC Section 10608.28.

(a) An urban retail water supplier may meet its urban water use target within its retail service area, or through mutual agreement, by any of the following:

(1) Through an urban wholesale water supplier.

(2) Through a regional agency authorized to plan and implement water conservation, including, but not limited to, an agency established under the Bay Area Water Supply and Conservation Agency Act (Division 31 (commencing with section 81300)).

(3) Through a regional water management group as defined in section 10537.

(4) By an integrated regional water management funding area.

(5) By hydrologic region.

(6) Through other appropriate geographic scales for which computation methods have been developed by the department.

(b) A regional water management group, with the written consent of its member agencies, may undertake any or all planning, reporting, and implementation functions under this chapter for the member agencies that consent to those activities. Any data or reports shall provide information both for the regional water management group and separately for each

Model Water Efficient Landscape Ordinance, CCR Title 23. Waters Division 2. Department of Water Resources Chapter 2.7

In 2015, Executive Order B-29-15 charged DWR with revising the 2010 MWELO to increase water efficiency standards for new and retrofitted landscapes through encouraging the use of more efficient irrigation systems, graywater usage, and on-site stormwater capture, and by limiting the portion of landscapes that can be covered in turf. The Executive Order B-29-15 also required that agencies report on their implementation and enforcement of local ordinances.

Specifically, the purpose of this Model Water Efficient Landscape Ordinance is to:

(1) promote the values and benefits of landscaping practices that integrate and go beyond the conservation and efficient use of water;

(2) establish a structure for planning, designing, installing, maintaining and managing water efficient landscapes in new construction and rehabilitated projects by encouraging the use of a watershed approach that requires cross-sector collaboration of industry, government and property owners to achieve the many benefits possible;

(3) establish provisions for water management practices and water waste prevention for existing landscapes;

(4) use water efficiently without waste by setting a Maximum Applied Water Allowance as an upper limit for water use and reduce water use to the lowest practical amount;

(5) promote the benefits of consistent landscape ordinances with neighboring local and regional agencies;

(6) encourage local agencies and water purveyors to use economic incentives that promote the efficient use of water, such as implementing a tiered-rate structure; and

(7) encourage local agencies to designate the necessary authority that implements and enforces the provisions of the Model Water Efficient Landscape Ordinance or its local landscape ordinance.

(c) Landscapes that are planned, designed, installed, managed and maintained with the watershed based approach can improve California's environmental conditions and provide benefits and realize sustainability goals. Such landscapes will make the urban environment resilient in the face of climatic extremes. Consistent with the legislative findings and purpose of the Ordinance, conditions in the urban setting will be improved by:

(1) Creating the conditions to support life in the soil by reducing compaction, incorporating organic matter that increases water retention, and promoting productive plant growth that leads to more carbon storage, oxygen production, shade, habitat and esthetic benefits.

(2) Minimizing energy use by reducing irrigation water requirements, reducing reliance on petroleum based fertilizers and pesticides, and planting climate appropriate shade trees in urban areas.

(3) Conserving water by capturing and reusing rainwater and graywater wherever possible and selecting climate appropriate plants that need minimal supplemental water after establishment.

(4) Protecting air and water quality by reducing power equipment use and landfill disposal trips, selecting recycled and locally sourced materials, and using compost, mulch and efficient irrigation equipment to prevent erosion.

(5) Protecting existing habitat and creating new habitat by choosing local native plants, climate adapted non-natives and avoiding invasive plants. Utilizing integrated pest management with least toxic methods as the first course of action.

California Green Building Standards Code, CCR Title 24, Part 11.

CALGreen is California's first green building code and first in the nation state-mandated green building code. CALGreen applies to the planning, design, operation, construction, use, and occupancy of every newly-constructed building or structure. The purpose of CALGreen is to improve public health, safety, and general welfare through enhanced design and construction of buildings.

CALGreen was adopted to address the five divisions of building construction:

- Planning and design
- Energy efficiency

- Water efficiency and conservation
- Material conservation and resource efficiency
- Environmental quality

CALGreen provisions under the jurisdiction of the California Department of Housing and Community Development (HCD) are for newly constructed residential structures, as well as additions and alterations to existing buildings which increase the building's "conditioned area, interior volume or size. CALGreen applies to the following types of residential structures:

- Hotels, motels, lodging houses
- Apartment houses, condominiums
- One- and two-family dwellings, townhouses, factory-built housing
- Dormitories, shelters for homeless persons, congregate residences, employee housing
- Other types of dwellings containing sleeping accommodations with or without common toilets or cooking facilities

These areas are required to be provided with both a potable water supply system and a recycled water supply system allowing the use of reclaimed (recycled) water for landscape irrigation systems. HCD developed new requirements for outdoor recycled water supply systems for all newly constructed residential developments, hotels and motels, if disinfected tertiary recycled water is available from a municipal source.

HCD amended the maximum flow rate of showerheads from 2.0 gallons per minute (gpm) to 1.8 gpm to align with CCR Title 20, Appliance Efficiency Regulations.

HCD adopted a new elective measure for hot water recirculation systems.

Making Conservation a Way of Life, Implementing Executive Order B-37-16

After the most recent drought, in 2018 the California State Legislature enacted to policy bills: SB 606 and Assembly Bill (AB) 1168 to establish a new foundation for long-term improvements in water conservation goals and drought planning to adapt to the longer and more intense droughts climate change is causing in California.

Collectively, these efforts provide a road map for all Californians to work together to ensure that we will have enough water now and in the future. The 2018 legislation applies to the actions of DWR, the SWRCB, and water suppliers.

DWR and the SWRCB will work closely together to develop new standards for:

- Indoor residential water use standard will be 55 gallons per capita daily until January 2025; the standard will become stronger over time, decreasing to 50 gallons per capita daily in

January 2030. For the water use objective, the indoor use is aggregated across population in an urban water supplier's service area, not each household;

- Outdoor residential water use standard will be based on land cover [landscaping] climate, and other factors i.e. geography, pastures and other irrigated lands or open space determined by the DWR and the SWRCB. The SWRCB will adopt the outdoor standard by June 2022;
- Commercial, industrial, and institutional water use for landscape irrigation with dedicated meters; and
- System water losses, formerly known as unaccounted for water.

Urban water suppliers must stay within annual water budgets based on these standards for their service areas. The 2018 legislation also supports drought planning. In urban areas, drought plans will be primarily led by local water suppliers. DWR and the SWRCB will develop recommendations to strengthen drought planning in rural areas and areas served by small water systems by coordinating with counties and other stakeholders.

Regional

Metropolitan Water District of Southern California – Integrated Water Resources Plan

Metropolitan, its member agencies, sub-agencies, and groundwater basin managers developed an Integrated Water Resources Plan (IRP) that was adopted by the Board in January 1996 as a long-term planning guideline for resources and capital investments. The purpose of the IRP was the development of a preferred resource mix to meet the water supply reliability and water quality needs for the region in a cost-effective and environmentally sound manner. The IRP has been updated several times since its inception. The most recent update occurred in 2015.

The 2015 IRP Update focused on ascertaining how conditions have changed in the region since 2010 when the last IRP was adopted. The 2015 Update involved developing new reliability targets to meet the evolving outlook of the region's reliability needs, assessing strategies for managing short and long-term uncertainty and communicating technical findings. The 2015 IRP Update also identified areas where policy development and implementation approaches are needed.[32]

As described above, Metropolitan's principal sources of water are the SWP and the CRA. In 1996, Metropolitan developed its Preferred Resource Mix that identified a balance of local and imported water resources within Metropolitan's service area. Over the last 15 years Metropolitan has continually reviewed and updated its IRP in five year increments and the associated resource targets and capital expenditure strategies necessary to reflect changing demand and supply conditions.

The following paragraphs describe the key elements of Metropolitan's water supply portfolio and investment programs.

[32] Metropolitan Water District of Southern California, 2016. Integrated Resources Plan. 2015 Update. Report No. 1518.

Water Conservation

Conservation and water use efficiency are the foundation of the IRP. Metropolitan and its member agencies has invested in conservation programs since the 1980s.

Water conservation is encouraged through financial rebates and incentives for water-efficient fixtures and devices, and through plumbing codes and regulations that facilitate water savings. In addition, retail customer conservation and efficient water use is encouraged through tiered pricing: as consumers are shown the higher cost-of-service of increased water use in higher priced tiers, customers seek ways to become more efficient and reduce water use. Public outreach and education brings awareness for the need to adopt conservation measures in dry years. Water savings can be achieved through three primary programs: active e.g. investment and rebate programs that incentivize water use efficiency; code-based (passive) efficiency through new plumbing codes for smart-controllers, devices, fixtures, equipment and price-effect conservation attained through usage reductions resulting from increases in the price of water.

Local Water Supplies

Local supplies are a significant and growing component to Metropolitan's water supply portfolio. According to the IRP Update 2015, local supplies can provide over half of the region's water in a given year. Local supplies reduce dependence on imported water and combined with conservation bolster the regions water supply sufficiency. Local supplies are composed of five main sources: Groundwater; Recycled Water; Seawater desalination; Los Angeles Aqueduct; Local surface water sources; and, other identified resources.

Groundwater

Groundwater basins within Metropolitan's service area provide the potential for operational flexibility to manage water supplies in Southern California. Many local groundwater storage programs have been implemented over the years to maximize the use of in-region water supplies. The integration of groundwater and surface water has been part of the local water management in Metropolitan's service area since the 1950s. Groundwater recovery projects have been implemented to recover otherwise unusable groundwater that has been degraded by minerals and other contaminants. These projects include the treatment of groundwater contaminated by various industrial operations and the desalination of brackish groundwater, which has a higher salinity than fresh water, but a lower salinity than seawater. In the last 10 years, groundwater storage levels in the region have dropped significantly. However, groundwater production has remained relatively constant despite a substantial decrease in groundwater recharge. Use of imported water for groundwater recharge has also declined in recent years, and has partially been replaced with greater recharge of recycled water. Expansion of recycled water recharge has buffered the region from more severe declines in groundwater supplies.[33]

[33] Metropolitan Water District of Southern California. 2016. Integrated Resources Plan, 2015 Update. p. 3.8-3.9.

Recycled Water

Recycled water is wastewater that has been treated so that it can be beneficially used for a variety of purposes ranging from landscape irrigation to groundwater recharge. Recycled water uses include:

- Non-potable reuse for non-consumptive use (agriculture, landscape irrigation and industrial uses);
- Indirect potable reuse (groundwater recharge and surface water augmentation); and
- Direct potable reuse (purified water directly into a potable water supply distribution system).

Metropolitan and its member agencies continue to invest in recycled water development programs that will enhance current and future recycled water programs. In July 2014, because retrofitting existing plumbing is generally cost-prohibitive, Metropolitan established the On-Site Retrofit Pilot Program to provide financial incentives to customers for the conversion of their potable industrial and irrigation s0079stems to recycled water.

In 2014, non-potable, and indirect potable reuse projects in the Metropolitan service area collectively produced a total of 414,000 acre-feet (AF). Regulations are currently under development for direct potable reuse and surface water augmentation.[34]

Saltwater Desalination

The constant availability of ocean water is one of the key benefits of seawater desalination. In 2014, Metropolitan included seawater desalination projects in the Local Projects Program (LRP) for the development of additional local supplies. With this initiative in place, desalination will eventually become an important component Local Water Supplies. Recently, the San Diego County Water Authority (SDCWA) completed construction of the 56,000 AF capacity Carlsbad Desalination project.

Los Angeles Aqueduct

Los Angeles Department of Water and Power (LADWP), a Metropolitan member agency, imports water from the eastern Sierra Nevada through the LAA. Average LAA deliveries since 1990 have been approximately 240,000 AF, meeting about 40 percent of the LADWP's total water needs.

Local Surface Water

Local surface water resources consist of runoff captured in storage reservoirs and diversions from streams. Reservoirs hold the runoff for later direct use, and diversions from streams are delivered directly to local water systems. Within Metropolitan's service area, local water agencies currently own and operate 34 reservoirs. Although these reservoirs provide a storage capacity of 737,000 AF, annual yield is dependent on rainfall, runoff and other operational considerations.

[34] Metropolitan Water District of Southern California, 2016. Integrated Resources Plan, 2015 Update. p. 3.8-3.9.

Other Identified Resources

On-Site Stormwater Capture and Use

On-Site Stormwater Capture and Use includes: on-site cisterns and the collection of rainwater for use in cooling towers, truck washes, drip irrigation, toilet flushing, rain barrels and other non-potable uses such as restrooms, on-site irrigation and subregional/regional storage.

Graywater

Graywater includes wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines and laundry tubs. The effectiveness of graywater systems can vary based on recycled water programs that are in place.

Storage and Transfers

Over the past two decades, Metropolitan has developed a large regional storage portfolio that includes both dry year and emergency storage capacity. Storage enables the capture of surplus amounts of water in normal and wet hydrologic conditions. Stored water can then be used in dry years when augmented water supplies are needed to meet regional demands. Storage generally takes two forms: surface reservoirs and groundwater basin storage. Metropolitan has developed dry-year storage with a capacity of more than 5.5 million AF. Groundwater and surface water storage generally takes two forms: surface reservoirs and groundwater basin storage.

Groundwater Storage

- Member Agency Conjunctive Use Programs (210,000 AF)
- Semitropic Storage Program (350,000 AF)
- Arvin-Edison Storage Program (350,000 AF)
- San Bernardino Municipal Water District Storage Program (50,000 AF)
- Kern Delta Water District Storage Program (250,000 AF)
- Mojave Storage Program (390,000 AF)

Surface Water Storage

- Diamond Valley Lake (810,000 AF);
- SWP Article 56 Carryover Storage (up to 200,000 AF);
- Flexible Storage in Castaic Lake and Lake Perris (219,000 AF);
- Intentionally Created Surplus in Lake Mead (1.5 million AF).

State Water Project

One of Metropolitan's two major sources of water is the SWP, which is owned by the State and operated by the state DWR. This project transports Feather River water stored in and released from Oroville Dam and unregulated flows diverted directly from the San Francisco Bay/Sacramento-San Joaquin River Delta (Bay-Delta) south via the California Aqueduct to four delivery points near the northern and eastern boundaries of Metropolitan's service area. The total length of the California Aqueduct is approximately 444 miles.

In 1960, Metropolitan signed a contract with DWR. Metropolitan is one of 29 agencies that have long-term contracts for water service from DWR, and is the largest agency in terms of the number of people it serves (almost 19 million), the share of SWP water that it has contracted to receive (approximately 46 percent), and the percentage of total annual payments made to DWR by agencies with state water contracts (approximately 60 percent in 2008). Upon expiration of the state water contract term (currently in 2035), Metropolitan has the option to continue service under substantially the same terms and conditions. Metropolitan presently intends to exercise this option to continue service to at least 2052.

Metropolitan's Table A contract amount for SWP water is 1,911,500 AFY. This represents the amount of water supply that would be available to Metropolitan in years where there is sufficient water supply for the SWP to deliver 100 percent of its total contract amounts.

Article 21 Interruptible Supplies

Metropolitan has a contract right to water supplies that are made available on an intermittent basis. Storm flows can occasionally make water supplies available that are in excess to the Table A allocation. State water contractors can take delivery of these supplies, with their rights being based on their proportional Table A contract amounts. Historically, Article 21 interruptible supplies have ranged from 0 to 240,000 AFY.

Turnback Pool

State water contractors have an option to return unused water supplies. These unused supplies are then made available through the Turnback Pool and can be purchased by other contractors. Turnback Pool supplies have ranged from 0 to 282,000 AFY but historically, these supplies are not frequently available.

Article 56 Carryover Storage

Metropolitan has the right to store its allocated Table A contract amount for delivery in the following year. Metropolitan can store between 100,000 and 200,000 AF, depending on the final water supply allocation percentage.

SWP Terminal Storage

Metropolitan has contractual rights to store up to 65,000 AF of water in Lake Perris (East Branch terminal reservoir) and 153,940 AF of water in Castaic Lake (West Branch terminal reservoir). This storage provides Metropolitan with additional options for managing SWP deliveries to maximize yield from the project.

Agreements with Desert Water Agency/Coachella Valley Water District

Metropolitan has several agreements in place with Desert Water Agency/Coachella Valley Water District that allows for CRA to be delivered to Desert Water Agency/Coachella Valley Water District in place of their Table A SWP water. Other agreements with Desert Water Agency/Coachella Valley Water District allow for operational flexibility through Table A supply

transfers, special deliveries and arrangements between Metropolitan and Desert Water Agency/Coachella Valley Water Districts.

Colorado River Aqueduct

The Colorado River was Metropolitan's original source of water after Metropolitan's establishment in 1928. Metropolitan has a legal entitlement to receive water from the Colorado River under a permanent service contract with the Secretary of the Interior. Water from the Colorado River or its tributaries is also available to other users in California, as well as users in the states of Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming (the "Colorado River Basin States"), resulting in both competition and the need for cooperation among these holders of Colorado River entitlements. In addition, under a 1944 treaty, Mexico has an allotment of 1.5 million AFY of Colorado River water except in the event of extraordinary drought, or serious accident to the delivery system in the United States, when the water allotted to Mexico would be curtailed. Mexico also can schedule delivery of an additional 200,000 AFY of Colorado River water if water is available in excess of the requirements in the United States and the 1.5 million AF allotted to Mexico.

The CRA, which is owned and operated by Metropolitan, transports water from the Colorado River approximately 242 miles to its terminus at Lake Mathews in Riverside County. After deducting for conveyance losses and considering maintenance requirements, up to 1.2 million AFY of water may be conveyed through the CRA to Metropolitan's member agencies, subject to availability of Colorado River water for delivery to Metropolitan as described below. California is apportioned the use of 4.4 million AFY of water from the Colorado River plus one-half of any surplus that may be available for use collectively in Arizona, California and Nevada. In addition, California has historically been allowed to use Colorado River water apportioned to but not used by Arizona or Nevada when such supplies have been requested for use in California. Under the 1931 priority system that has formed the basis for the distribution of Colorado River water made available to California, Metropolitan holds the fourth priority right to 550,000 AFY. This is the last priority within California's basic apportionment of 4.4 million AF. In addition, Metropolitan holds the fifth priority right to 662,000 AF of water, which is in excess of California's basic apportionment.

Imperial Irrigation District/Metropolitan Conservation Program

Since 1988, Metropolitan has funded water conservation programs within Imperial Irrigation District's (IID) service area. The conserved water from these programs is then transferred to Metropolitan. Conservation approaches range from distribution system improvements. Through this conservation program, 105,000 AF of water is saved annually.

Palo Verde Land Management & Crop Rotation Program

In 2005, Metropolitan entered into a 35-year program with the Palo Verde Irrigation District (PVID). Under the program, participating farmers in PVID are paid to reduce water use by leaving up to 35 percent of their PVID acreage unirrigated. Between 33,000 and 133,000 AF are made available to Metropolitan under this program.

Southern Nevada Water Authority Exchange

In 2004, Metropolitan and Southern Nevada Water Authority (SNWA) entered into an interstate storage and release program, in which Metropolitan stores otherwise unused SNWA supplies with an agreement to return the stored water in the future when needed by SNWA. As of 2015, Metropolitan had stored more than 400,000 AF of water on behalf of SNWA, with a commitment to return 330,000 AF at a later date.

Intentionally Created Surplus Program

Metropolitan and the Bureau of Reclamation executed an agreement on May 26, 2006 for a demonstration program that allowed Metropolitan to leave conserved water in Lake Mead that Metropolitan would otherwise have used in previous years. Only "intentionally-created surplus" water (water that has been conserved through an extraordinary conservation measure, such as land fallowing) was eligible for storage in Lake Mead under this program.

Comprehensive Transfers and Exchanges Strategy

Water transfers and exchanges can play a major role in addressing near-term vulnerability. A comprehensive strategy to pursue transfers and exchanges can be used to hedge against these shorter-term imbalances until long-term solutions are in place. Water transfers and exchanges can be used to augment water supplies, offset storage withdrawals and add to storage reserves. This strategy places an emphasis on obtaining larger amounts of transfer and exchange supplies in wet and normal years.

Case for Supply Sufficiency

Of the 91 supply and demand modelling scenarios Metropolitan performed while preparing the IRP 2015 Update, investigated the potential benefits of developing additional supplies to guard against the risk of reduced local supplies, for this scenario 200,000 AF was added to the supplies available in 2006 through 2015. In this case, even with actual local supplies being reduced by 10 percent, the additional supplies improved storage reserves and allowed for effectively managing drought and reduced imported supplies. The additional supplies also improved the overall balance between water supplies and demands in each year. In this analysis, regional storage levels never fell below 1 million AF. Having an additional 200,000 AF available would have fully mitigated the risk from reduced supplies and allowed for managing through the 10-year period without a need for a supply allocation in any of the years.

With this scenario as key result the Metropolitan's "Integrated Water Resources Plan Approach" case builds in the additional development targeted for CRA, SWP, conservation, and local supplies as described above. For long-term water supply planning purposes, Metropolitan and its member agencies will be implementing several programs, plans and initiatives as described above. With these programs, plans and initiatives in place and in progress, over the planning horizon of 2040 water supplies will continue to improve as shown in **Table 3.15-5**.

TABLE 3.15-5
METROPOLITAN INTEGRATED WATER RESOURCES PLAN SUPPLY SUFFICIENCY

Achieve Additional Conservation Savings	Develop Additional Local Water Supplies	Maintain CRA Supplies	Stabilize SWP Supplies	Maximize the Effectiveness of Storage and Transfer
Pursue further water conservation savings of 485,000 AFY by 2040 through increased emphasis on outdoor water-use efficiency using incentives, outreach/education and other programs.	Develop 230,000 AF of additional local supplies produced by existing and future projects. The region would reach a target of 2.4 million AF by 2040, a key to providing water supply reliability into the future.	Develop programs to ensure that a minimum of 900,000 AF is available when needed, with access to 1.2 million AF in dry years.	Manage SWP supplies in compliance with regulatory restrictions in the near-term for an average of 980,000 AF of SWP supplies	Manage SWP supplies in compliance with regulatory restrictions in the near-term for an average of 980,000 AF of SWP supplies

SOURCE: Metropolitan Water District of Southern California, 2016. *Integrated Water Resources Plan, 2015 Update*, pp. 6.1–6.4.

Central Basin Municipal Water District UWMP

CBMWD's UWMP was finalized in May 2015. This UWMP provides a detailed summary of CBMWD's present and future water resources and demands within its service area and assesses its water resource needs. Specifically, the UWMP provides water supply planning for a 25-year planning period in five-year increments and identifies water supplies needed to meet existing and future demands. The demand analysis must identify supply reliability under three hydrologic conditions: a normal year, a single dry year, and multiple-dry years.

West Basin Municipal Water District UWMP

WBMWD's UWMP was finalized in June 2016. This UWMP provides a detailed summary of WBMWD's present and future water resources and demands within its service area and assesses its water resource needs. Specifically, the UWMP provides water supply planning for a 25-year planning period in five-year increments and identifies water supplies needed to meet existing and future demands. The demand analysis must identify supply reliability under three hydrologic conditions: a normal year, a single dry year, and multiple-dry years.

Local

Golden State Water Company UWMP

GSWC's adopted 2015 UWMP reflects the GSWC's Southwest System water supply and demand comparison in 5-year increments showing future supplies, demand forecasts and measures to monitor and control future demand. The UWMP, along with Water Master Plan, Capital Improvement Plan and other water resources planning documents, is used by GWSC staff to guide the water use and management efforts over a 20-year planning horizon.

City of Inglewood General Plan

The City of Inglewood General Plan Conservation Element, adopted on October 21, 1997, addresses the conservation, development and utilization of natural resources found within the jurisdiction of the City. Chapter III of the Conservation Element address resource conservation

and management and contains several goals, objectives, and policies related to water production. The following goals and policies from the City of Inglewood General Plan Conservation Element are relevant to the Proposed Project.

> ***Policy 2:*** Reduce the ever-increasing demand being placed on the aquifers and on the statewide water sources.

The Proposed Project would increase demand for water supply over existing levels at the Project Site and within GSWC's Southwest System service area. The Proposed Project would be within the planned growth for the City of Inglewood and, correspondingly, is anticipated within the water supply plans for the agencies charged with providing adequate water supplies to meet the land use plans of the jurisdictions they serve. The Proposed Project would incorporate water conserving design and operational features to insure not only that water usage complies with all relevant state, regional and local water conservation requirements but also meets the voluntary standards of the LEED Gold certification program, which set water conservation performance expectations above and beyond the mandatory compliance levels. With this commitment to a high level of water conservation and use efficiency, the Proposed Project would reduce water supply demand consistent with the City of Inglewood's policy.

In addition, as reported in the GSWC 2015 UWMP – water use per capita within its Southwest System service area has declined notably over the last decade due to a combination of factors including tiered water pricing, increasing water conservation regulations, the extended drought, and the recession. This documented reduction in per capita water use, combined with GSWC's commitment to continued water conservation efforts and compliance with relevant State requirements, as well as efforts by WBMWD to increase recycled water use, further reinforce that both the Proposed Project and water service within GSWC's Southwest System are in alignment with the City's policy regarding water demand management.

The final determination of consistency with the City's General Plan is the responsibility of the City of Inglewood City Council.

3.15.4 Analysis, Impacts and Mitigation

Significance Criteria

The City has not adopted thresholds of significance for the analysis of impacts to water supply. The following thresholds of significance have been adapted from CEQA Guidelines Appendix G. A significant impact would occur if the Proposed Project would:

1. Require or result in the relocation or construction of new or expanded water treatment facilities or expansion of existing facilities, the construction or relocation of which could cause significant environmental effects; or
2. Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.

Methodology and Assumptions

Estimating Project Water Demand

As detailed in the Water Supply Assessment (Appendix M), potential water demand for the Proposed Project was estimated using a water use factor and a base unit for each use. For example, water use in the Arena is estimated with a maximum capacity of 18,500 attendees and 4 gallons per day (gpd) per attendee. The Arena water demand factor is based on a Water and Sewer Analysis prepared for the Golden State Warriors Arena in San Francisco.[35] Water demand estimates for the plaza assumed approximately 10 percent of the space would be landscaping and the remainder would be hardscaping. Outdoor hardscaping water demand is assumed to be driven by washing surfaces, assumed to occur four times per year.

Estimating GSWC Future Demand

Population, housing, and employment projections were developed for the Southwest System using the Southern California Association of Governments (SCAG) population, housing, and employment data. SCAG updated its projections in 2012 for population, household, and employment growth through the year 2035 using 2010 U.S. Census data. SCAG's methodology is summarized below, followed by the derivation of population projections for the Southwest System. On a regional level, the SCAG forecast uses a cohort component model to project birth and death rates based on demographic factors and estimates migration based on economic fluctuations. Projected growth of an individual jurisdiction is assumed to be proportionate to the jurisdiction's historic contribution to county growth. SCAG's projections undergo extensive local review, incorporating zoning information from city and county general plans. A detailed explanation of the population, household and employment projection process employed by SCAG can be found in the report: Growth Forecast, a supplemental report to the SCAG Regional Transportation Plan, 2012–2035.

SCAG city level projections were used to determine projected population from 2020 to 2040. The Southwest System serves the Cities of Gardena and Lawndale, parts of the cities of Carson, Compton, El Segundo, Redondo Beach, Hawthorne and Inglewood, and portions of unincorporated parts of Los Angeles County. The SCAG historic growth rate for the City of Hawthorne more closely matches that of the Southwest System's historic population growth rate than that for the surrounding cities or unincorporated areas. Therefore, the SCAG growth rate for 2015 through 2035 for the City of Hawthorne was used to project the population, household, and employment of the Southwest System. This methodology applies the SCAG growth rate to a consistent system boundary through 2040; therefore, it is assumed that the projected population accounts for system in-fill only and does not include geographic growth such as tariff area expansion. **Table 3.15-6** presents the current and projected population for the Southwest System.

[35] Todd Groundwater, 2019. *Water Supply Assessment: Golden State Water Company – Southwest, Inglewood Basketball and Entertainment Center*. July 2019.

TABLE 3.15-6
GSWC SOUTHWEST SYSTEM SERVICE AREA – POPULATION PROJECTIONS

Population	2015	2020	2025	2030	2035	2040
GSWC-SW Population Served	275,369	282,455	289,326	296,365	303,576	310,961
Assumed Annual Growth	0	0.51%	0.48%	0.48%	0.48%	0.48%

SOURCE: Todd Groundwater, 2019. *Water Supply Assessment: Golden State Water Company – Southwest, Inglewood Basketball and Entertainment Center*. July 2019. Table 5 [EIR Appendix M].

According to SCAG data for Hawthorne, population is expected to increase by a total of 14 percent from 2008 to 2035, which translates to a 0.5 percent growth rate per year. The number of households is expected to grow 7 percent during the same period, which equates to an annual household growth rate of 0.3 percent. Employment is expected to grow 6 percent during the same period, which equates to an annual employment growth rate of 0.2 percent.

Growth projections for the number of service connections and water use were calculated for the year 2020 through 2040 in 5-year increments using the SCAG-based approach. SCAG (Hawthorne) household projections were used to determine the growth in single family and multi-family service connections for the years 2020, 2025, 2030, 2035, and 2040. For example, the percent growth rate in households from the year 2015 to year 2020 was multiplied by the number of service connections in 2015 to obtain a projection of the number of connections in the year 2020. Similarly, employment growth projections were used to determine the growth for commercial, industrial, institutional/government, agricultural irrigation, landscape, and other service connections.

Impacts and Mitigation Measures

Impact 3.15-1: Construction and operation of the Proposed Project could require or result in the relocation or construction of new or expanded water facilities, the construction of which could cause significant environmental effects. (Less Than Significant)

Water Conveyance Infrastructure

GSWC operates a water supply system currently consisting of 8 wells that pump from the WCGB and 2 wells that pump from the Central Basin, 13 imported water connections, storage and distribution reservoirs, and a variety of transmission and conveyance facilities. Wells vary in production capacity but all wells combined to serve the Southwest System can produce up to 10,865 gpm or 17,525 AFY.[36] GSWC takes delivery of imported surface water through two water connections with CBMWD for maximum supply of 18,057 AFY and eleven connections with WBMWD for a maximum supply of 76,020 AFY. Combined, these connections have a total delivery capacity of approximately 94,059 AFY.[37]

[36] Golden State Water Company, 2016. *2015 Urban Water Management Plan – Southwest*. pp. 6-1, 6-8.
[37] Golden State Water Company, 2016. *2015 Urban Water Management Plan – Southwest*. pp. 6-1, 6-8

The existing water pipelines throughout the project area would provide some of the infrastructure necessary to provide water service to future uses. However, it is likely that new on-site and off-site improvements would be required to provide adequate service for the increase in water demand. Project plans indicate that some existing water pipelines on the Project Site, currently within the rights-of-way of West 101st and West 102nd Streets, would be relocated to the perimeter of the site as the existing parcels and streets are reconfigured for the Proposed Project.

Within the Project Site, new water distribution infrastructure would be constructed as part of the project development. Construction of new water pipes would require demolition of surface improvements and excavation activities. Future construction of water infrastructure would adhere to existing laws and regulations, and the water conveyance infrastructure would be appropriately sized for each site-specific development, which includes potable water, domestic irrigation, and fire flow demands. The environmental effects of building the on-site water distribution infrastructure are addressed in environmental analyses in other sections of this Draft EIR, such as in Sections 3.4, Cultural and Tribal Cultural Resources; 3.6, Geology and Soils; 3.8, Hazards and Hazardous Materials; 3.9, Hydrology and Water Quality; and 3.11, Noise and Vibration.

Water Treatment Facilities

The demand for groundwater generated by the Proposed Project is not anticipated to require additional treatment facilities because GSWC has existing facilities that are maintained in place and connected to existing boost pumps, transmission and distribution systems. These facilities provide direct water treatment at the originating wells prior to distribution within GSWC's service area.

GSWC maximum delivery from imported water is up to 58,313 gpm (74.4 MGD) and maximum groundwater is extraction 10,865 gpm (15.6 MGD). GSWC annual average production and delivery from imported water between 2011 and 2015 averaged 14.8 MGD and groundwater production averaged 12.5 MGD over the same period. Average total water deliveries were 27.3 MGD. Assuming a total system capacity of 69,178 gpm or 90.1 MGD, there remains a surplus capacity of 62.7 MGD. Therefore, existing capacity within the groundwater supply system or surplus capacity within the imported water supply system could easily accommodate the new demand of 0.056 MGD generated by the proposed project.

As stated above, Metropolitan treats imported water at five treatment plants located around the Los Angeles basin. It is expected that the majority of the CBMWD and WBMWD supplies from Metropolitan come from either the Diemer Treatment Plant or the F.E Weymouth Treatment Plant, which treat water prior to distribution to Los Angeles, Orange County, parts of Los Angeles County, including the San Gabriel Valley and areas of Orange County. The Diemer Filtration Plant has an operating capacity of 550 MGD. Diemer Treatment Plant's 10-year average daily treatment is 220 MGD, while the F.E Weymouth Treatment Plant has an operating capacity of 520 MGD with a 10-year average daily treatment of 205 MGD. If the proposed Project water demands were to be treated solely at either filtration plant, this increase would represent less than 1 percent (0.0001 percent at Diemer Treatment Plant or 0.0001 percent at F.E.

Weymouth Treatment Plant) of the design capacities of either facility. In terms of comparing the proposed Project's contribution to the average daily treatment flows from Diemer Treatment Plant or F.E. Weymouth Treatment Plant, water demand from the proposed project (0.056 MGD) would be less than 1 percent (0.0003 MGD) of the average daily treatment flow at either water treatment plant.

Because water supply for the proposed Project represents a fraction of the remaining operating capacity at both Diemer Treatment Plant and F.E Weymouth Treatment Plant, it is expected that the existing plants could adequately serve the additional demand generated by the proposed project without requiring new facilities or expansions to these facilities. Furthermore, Metropolitan manages and maintains all of the treatment plants, and any improvements or expansions are the responsibility of Metropolitan and would not adversely affect the CBMWD, WBMWD, GSWC, or the proposed project. In terms of groundwater, GSWC's existing groundwater treatment systems associated with its ten wells and existing water distribution system combined with imported water from CBMWD or WBMWD could adequately meet the new water demand associated with the proposed project. Therefore, this impact is considered **less than significant**, and no mitigation is required.

City of Inglewood Well 6 Relocation

The City of Inglewood has several groundwater wells within its service area. Currently, groundwater well (Well 6) is located within the Project Site. As a result of the Proposed Project, Well 6 would be abandoned in place and a new Well 8 would be constructed and installed in order to maintain water supply to this portion of the City's distribution system.

Well 6 was constructed in 2003 and has experienced declining pumping capacity over the years. Well 6 was designed for 2,800 gpm but initial pumping tests were at flows of 1,500 to 4,400 gpm. The pump was replaced in 2011 with a reduced flow of 1,400 gpm, since then water quality issues have reduced the average day use to approximately 1,200 gpm. The City of Inglewood scheduled Well 6 for rehabilitation to increase its capacity to 1,500 gpm in 2017. However, rehabilitation of the Well 6 has been postponed and Well 8 would be constructed and installed at new location outside of the proposed project area. In July 2018, the City of Inglewood prepared a Preliminary Well Design Report for the proposed new Well 8 that would replace Well 6.

The City of Inglewood has identified Lot 35, located near the intersection of Doty Ave and 102nd Street, as the proposed location for Well 8. Well 8 would be approximately 500 feet from Well 6. Lot 35 is rough-graded level and unimproved with native grasses. This is an urbanized area. Lot 35 is bounded on the north by 102nd Street, residential properties on the east and south and commercial property to the west. Based on the Preliminary Design Report, Well 8 would be designed as an in-kind replacement of Well 6 with no capacity upgrades.

Typically, groundwater well construction and installation activities are short-term projects, less than 30 days to drill, develop, test, and then connect to the existing distribution system. Well 8 improvements would occur on 0.75 acres with 3,000 square feet of imperious surfaces.

Construction and installation of Well 8 could potentially cause adverse environmental impacts that would be reduced or eliminated through standard operating procedures, scheduling, best management practices, and adherence to municipal codes and ordinances. Above-ground structure and facilities associated with Well 8 would be designed to match the local urbanized surroundings with landscaped areas along the sidewalk of 102nd Street. New impervious site improvements would be a new 15-foot-wide paved access road leading to a small paved area around Well 8 and appurtenances. The remainder of Lot 35 would be unpaved and pervious, allowing some stormwater to percolate to groundwater and excess stormwater to flow to the on-site catch basin.

Operation of Well 8 would be similar to existing groundwater well facilities in the City of Inglewood and would not have adverse environmental effects.

Mitigation Measure

None required.

Impact 3.15-2: Construction and operation of the Proposed Project could result in insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. (Less Than Significant)

Construction

Project construction would require water for dust suppression, grading, and general demolition and construction activities. Water would be supplied by existing water mains and connections within surrounding streets. As described in the setting section, existing water use at the Project site is estimated to be about 8 AFY. As the existing on-site uses (a fast-food restaurant, a hotel, and warehouse and light manufacturing facilities) would cease to operate prior to the start of project construction, water currently used at the site would instead be available to support construction activities.

Construction water demand was estimated for the project site, using landscape irrigation assumptions appropriate to the Los Angeles region's Mediterranean climate and assuming high water demand landscaping materials, which yield a demand factor of 20.94 gallons per year per square foot of area.[38] Total construction period water demand for the Proposed Project is estimated to be 42 AF over the three-year construction period. Construction water use per year over the project construction period would depend on how the construction proceeds in phases over the three-year period and thus would be less than the full 42 AF in a single year. However, for purposes of analyzing whether there would be adequate water supply to meet project construction demands along with other water demands within the GSWC's service area, the 42 AF total construction water demand is considered to occur in a single year.

[38] U.S. Department of Energy, Energy Efficiency and Renewable Energy, Federal Energy Management Program, "Guidelines for Estimating Unmetered Landscaping Water Use" July 2010, p. 12, Table 4.

A 42 AFY demand for construction water is just under half the annual water demand of 103 AFY estimated for full project operation. Please see the detailed discussion in the section below on Project Operation that analyzes the water supply sufficiency to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. That analysis documents that GSWC has adequate supply to serve the project operations and future projected demands within its Southwest System service and therefore also confirms that GSWC has adequate supply to meet the construction period water demands of the Proposed Project. The impact of project construction on water supply, therefore, would be **less than significant**.

Operation

Consistent with the analysis undertaken in the WSA that was prepared and is provided in Appendix M of this Draft EIR, this assessment of water supply sufficiency first reviews the projected water demand for both the Proposed Project and future uses within the GSWC Southwest System service area, then reviews GSWC's projected future water supply sources and amounts to meet that demand, and finally, reviews the reliability of GSWC's future water supplies under three scenarios: normal year, single dry year, and multiple dry years.

Project Water Demand

Water demand for operation of the Proposed Project was estimated by Stetson Engineers.[39] Annual Proposed Project water demands were assessed under two scenarios – standard water conservation measures and enhanced water conservation and water reuse measures based on the requirements established for the Leadership in Energy and Environmental Design (LEED) certification.

Proposed Project water demand estimates are shown in **Table 3.15-7**. Future annual water demand for the Proposed Project is estimated to be 103 AFY under the standard conservation measures scenario, and 63 AFY as described above, under LEED Gold certification requirements scenario that would result in annual water savings of 40 AF.

LEED Gold Water Conservation

For Proposed Project to achieve LEED certification it must fulfill three perquisites in order to receive LEED points under the Water Efficiency" credit category. The LEED certification prerequisites for new building construction are:

1. Outdoor Water Use Reduction
   - Designed to reduce outdoor water use (by at least 30 percent from a calculated baseline) or eliminate the need for [outdoor] water usage.

[39] Stetson Engineers, 2019. Review of Water Demands Memo.

TABLE 3.15-7
SUMMARY OF STETSON ENGINEERS WATER DEMANDS ANALYSIS

Water Use Type	Estimated Water Demands (AFY)	
	Baseline Conservation	LEED Gold Certification
Indoor		
Arena and Plaza Events[a]	21.0	10.7
Office Space	8.8	6.1
Retail Space	8.1	4.0
Restaurant Space	8.1	4.4
Indoor Washdown	2.4	2.4
Hotel (150 rooms)	21.0	13.7
Subtotal – Indoor	69.4	41.3
Outdoor		
Landscape	14.3	6.6
Outdoor Washdown	0.7	0.7
Subtotal – Outdoor	15.0	7.3
Other		
Arena and Plaza Events[b]	18.4	14.7
Subtotal – Other	18.4	14.7
Total	**102.8**	**63.3**
Total (rounded)	**103.0**	**63.0**

NOTES:
[a] Excludes Arena Structure cooling tower water demands
[b] Arena Structure cooling tower water demands
[c] Pursuant to the LEED's "Indoor Water Use Reduction" category

SOURCE: Todd Groundwater, 2019. *Water Supply Assessment: Golden State Water Company – Southwest, Inglewood Basketball and Entertainment Center*. July 2019. Table 1 [EIR Appendix M].

2. Indoor Water Use Reduction

   – Reduce aggregate water use by 20 percent from the baseline. Install only toilets, urinals, private lavatory faucets and showerheads that are labeled as WaterSense eligible or meet WaterSense criteria.

3. Building-Level Water Metering

   – Install permanent meters that measure total potable water (indoor and outdoor), and record total water use data on a monthly basis, and

   – Agree to share the water data with the U.S. Green Building Council (USGBC) for five years following project certification or building occupancy, whichever comes first.

According to the Sustainability/LEED Checklist[40] the Proposed Project could fulfill the LEED certifications prerequisites through the following actions:

- Use recycled water to service water conscious landscape design necessary to reduce outdoor water use by at least 50 percent;
- Incorporate water efficient fixtures to necessary to achieve approximately 40 percent reduction in indoor water use; and
- Install smart water meters.

Upon fulfilling the LEED prerequisites, the Proposed Project could earn LEED certification points, through four Water Efficiency categories as listed below:

1. Outdoor Water Use Reduction – earn 2 points by eliminating outdoor water use or reducing outdoor water use by 50 percent or more;
2. Indoor Water Use Reduction- earn up to 6 points by reducing indoor water use by more than 20 percent;
3. Cooling Tower Water Use – earn 2 points through makeup water efficiencies while effectively controlling microbes, corrosion and scale in the condenser water system; and
4. Additional Water Metering – earn 1 point each for installing submeters for two or more of the following:
   - Irrigation
   - Indoor plumbing fixtures and fittings
   - Domestic hot water
   - Boilers
   - Reclaimed water
   - Other process water

The Proposed Project would be designed for LEED Gold certification that would be attained by earning 60 to 79 LEED certification points. Within the Water Efficiency categories, the Proposed Project would earn LEED certification points through installation of:

- Landscape materials that would result in a 50 percent reduction in outdoor water use and designing for, and installing plumbing to use recycled water for the majority of outdoor irrigation purposes;
- Water efficient fixtures and equipment that achieves 40 percent reduction in indoor water use;
- A specialized cooling tower system that is equipped with water-efficient technologies. Per the Sustainability/LEED Checklist, recycled water could be used blended into the makeup water while maximizing the cycles of concentration; and

[40] Sustainability / LEED Checklist, AECOM, August 2018

- Submeters to track water use for indoor hot water, boiler make-up water, and recycled water systems.

Water Demand Confirmation

In preparing the WSA for the Proposed Project, an independent review and analysis of water demand for the Proposed Project corroborated the estimated annual water demand for the Proposed Project to be about 100 AFY. **Table 3.15-8** summarizes the independent calculation of water demand for the Proposed Project prepared by Todd Groundwater. This independent assessment confirmed that the total water demand estimate prepared for the Proposed Project by Stetson Engineers of 103 AFY is reasonable given the anticipated events, uses and level of use proposed, and assuming implementation of standard conservation measures (rather than the LEED Gold certification criteria for water-use efficiency, which the Proposed Project would be designed to achieve and would result in total water use for the Proposed Project of 63 AFY).

TABLE 3.15-8
CONFIRMATION OF PROPOSED PROJECT WATER DEMAND

Land Use	Area (sf)	Demand Factor (gpd per sf)	Water Demand (gpd)	Water Demand (AFY)
Arena Structure	18,500 seats	4 gpd/seat	based on event	22.7
Practice and Training Facility	85,000	0.0625	5,314	6.0
Office Space	71,000	0.15	10,863	12.2
Sports Medicine Clinic	25,000	0.62	15,462	17.3
Outdoor Plaza	65,000			
Retail[a]	24,000	0.172	4,128	4.6
Community Space	15,000	0.47	7,050	7.9
Restaurants[b]	24,000	0.3	7,200	8.1
Hardscape	58,500	0.00164	96	0.1
Landscape	6,500	0.0195	127	0.1
Hotel	150 rooms	115 gpd/room	17,250	19.3
Parking Facilities[c]	—	0.0	0	0.0
Project Total			**67,490**	**98.4**

NOTES:
sf = square feet; gpd = gallons per day; AFY = acre-feet per year
[a] Restaurant Uses includes all food service facilities i.e. full service and bar, quick service, and coffee shop.
[b] Retail Uses includes all retail facilities, i.e., LA Clippers Team Store, LA Clippers Experience, and general retail shops.
[c] Parking Facilities includes all parking garages.

SOURCE: Todd Groundwater, 2019. *Water Supply Assessment: Golden State Water Company – Southwest, Inglewood Basketball and Entertainment Center*. July 2019, Table 3 [EIR Appendix M].

GSWC Southwest System – Projected Future Water Demand

Table 3.15-9 summarizes actual 2015 and projected future water demands for the GSWC's Southwest System's service area from 2020 to 2040 (see the methodology section above for an overview of how GSWC developed its future water demand projections based on SCAG projections of population, household and employment growth). Between 2015 and 2040 total

annual water demands are projected to increase about 30 percent, an increase of 7,458 AFY from 2015 use levels of 27,331 AFY to a projected 2040 use of 34,789 AFY. Demands are projected to increase in all water use categories but predominantly residential and commercial uses. As described in the setting section, water use within the Southwest System service area declined between 2000 and 2015 due to several factors and the projected 2040 demand remains below the 2000 actual water use, which exceeded 35,000 AF.[41]

TABLE 3.15-9
GSWC ACTUAL AND PROJECTED WATER DEMAND BY WATER USE SECTOR (AFY)

	Actual Demand	Projected Water Demand				
Customer Type	**2015**	**2020**	**2025**	**2030**	**2035**	**2040**
Single-Family Residential	9,027	11,324	11,463	11,604	11,746	11,891
Multi-Family Residential	8,784	10,004	10,127	10,252	10,379	10,506
Commercial	4,133	4,724	4,775	4,828	4,882	4,936
Industrial	1,770	1,851	1,872	1,893	1,913	1,936
Institutional/Governmental	904	993	1,004	1,016	1,027	1,039
Landscape Irrigation	672	1,074	1,088	1,103	1,117	1,131
Agricultural	378	263	296	329	361	394
Other	10	23	24	24	24	25
Losses	1,262	2,017	2,043	2,069	2,095	2,122
Subtotal Potable Demand	*26,938*	*32,271*	*32,692*	*33,116*	*33,545*	*33,980*
Recycled Water Demand	393	809	809	809	809	809
Total Water Demand	**27,331**	**33,080**	**33,501**	**33,925**	**34,354**	**34,789**

SOURCE: Golden State Water Company, 2016. *2015 Urban Water Management Plan – Southwest*. pp. 4-2 through 4-5.

Analysis of GSWC Supply Availability to Meet Future Demands

Table 3.15-10 shows actual water supply by source delivered by GSWC in years 2010 and 2015 and the projected water supply by source that GSWC proposes to make use of to meet the projected future demands within the Southwest System service area. As Table 3.15-10 shows, in 2015 GSWC purchased more imported surface water supply and used less groundwater supply than it did in 2010. The supply mix pattern for 2015 was atypical. In 2015, GSWC's purchased imported supply of 21,000 AF represented 77 percent of the annual total and groundwater represented only 22 percent of the annual total. GSWC indicates that it experienced operational issues in 2015 and 2016 that reduced groundwater pumping. GSWC's projected future supply through 2040 reflects the more typical supply source mix, with purchased imported water representing about 50 percent of the annual supply and groundwater representing about 50 percent of the supply. Recycled water use is projected to increase from 1 to 2 percent of the total supply.

[41] Golden State Water Company, 2016. *2015 Urban Water Management Plan – Southwest*. Figure 4-1, p. 4-3.

TABLE 3.15-10
GSWC HISTORICAL AND PROJECTED WATER SUPPLY SOURCES (AFY)

Water Supply	Source	2010	2015	2020	2025	2030	2035	2040
Purchased Imported Water	CBMWD	12,594	3,627	2,800	2,800	2,800	2,800	2,800
Purchased Imported Water	WBMWD		17,397	13,371	13,792	14,216	14,645	15,080
Imported Water Subtotal		*12,594*	*21,024*	*16,171*	*16,592*	*17,016*	*17,445*	*17,880*
Percent of Total		*42%*	*77%*	*49%*	*50%*	*50%*	*51%*	*51%*
Groundwater	Central Basin	3,230	430	3,100	3,100	3,100	3,100	3,100
Groundwater	WCGB	13,843	5,484	7,502	7,502	7,502	7,502	7,502
Groundwater	WCGB (leased ground water rights)*	—	—	5,498	5,498	5,498	5,498	5,498
Groundwater Subtotal		*17,073*	*5,914*	*16,100*	*16,100*	*16,100*	*16,100*	*16,100*
Percent of Total		*57%*	*22%*	*49%*	*48%*	*47%*	*47%*	*46%*
Recycled Water	WBMWD	219	393	809	809	809	809	809
Percent of Total		*1%*	*1%*	*2%*	*2%*	*2%*	*2%*	*2%*
Total		**29,886**	**27,331**	**33,080**	**33,501**	**33,925**	**34,354**	**34,789**

NOTE:
* In addition to GSWC's groundwater adjudicated rights in the WCGB and Central Basin, GSWC also has the ability to annually lease groundwater rights, if needed and available.

SOURCE: Todd Groundwater, 2019. *Water Supply Assessment: Golden State Water Company – Southwest, Inglewood Basketball and Entertainment Center*. July 2019 [EIR Appendix M].

To assess its future water supply portfolio, GSWC assumes constant supplies through 2040 of imported water from CBMWD, as well as constant supplies of groundwater from the Central Basin and WCGB, and recycled water. To meet rising demand in the future (7,458 AFY over 2015 by 2040), GSWC plans to increase imported water supply purchases from WBMWD and to lease additional groundwater from the WCGB. In general, GSWC's supply is expected to be highly reliable through 2040. This reliability is a result of the following:

- Adjudicated groundwater rights in the Central and West Coast basins;
- Availability of contractual purchases of leased groundwater;
- Benefits of conjunctive use storage programs to be developed in accordance with the Central and West Coast Basin Judgments;
- Water supplies available from the supplemental supplier, Metropolitan, projected to be highly reliable;
- Conservation derived supply; and
- Availability of recycled water.

In addition to GSWC's groundwater adjudication rights in the WCGB and Central Basin, GSWC also has the ability to annually lease groundwater rights, if needed and available. GSWC estimates that it would lease approximately 5,498 AFY of additional groundwater supply. While

quantifiable estimates of groundwater leases are not available for future years, projections are based on historical pumping amounts, including leased groundwater, and assume that available unpumped groundwater would continue to be available as in the past.[42] As discussed in its 2015 UWMP (page 6-8), GSWC has historically obtained leases to augment its APA in the Central Basin, averaging 4,190 AFY from 1999 to 2015 and leased groundwater pumping rights in the West Coast Basin, averaging 5,336 AFY over the last ten years. Leases for additional groundwater in both the Central Basin and West Coast Basin are renewed annually, on an as needed basis, and after an evaluation of the economic benefits to rate payers.

In each year, between 27,392 AFY and 61,067 AFY of available APA has not been pumped in the Central Basin and between 31,678 and 39,889 AFY of adjudicated rights has not been pumped in the West Coast Basin. A portion of this un-pumped water could be available for GSWC to lease, on an annual basis, to augment its Central Basin APA and/or West Coast Basin water rights and support overall water supply reliability. In addition, under the adjudication terms, GSWC (and other authorized pumpers) have an opportunity to store additional water in the groundwater basin up to 200 percent of their APA per year. Water transfers and exchanges may also be undertaken as part of conjunctive use storage programs to be developed.

GSWC's projected future water demands reflect demand increases associated with general commercial and residential growth in the Southwest System service area and have not been allocated to specific development projects. GSWC requires that new projects within the service area register as a new business and provide information about proposed water supplies needs. GSWC assesses each application to determine if each project would be within the capability of its water system. The Proposed Project submitted preliminary information to GSWC and received a "will serve" letter in November 2017 indicating GSWC ability to serve the project.[43]

The Proposed Project would be operational by mid-2024. With an estimated water demand of 103 AFY that does not include a greater level of water savings that would achieved by meeting LEED Gold certification standards (potentially reducing water demand to 63 AFY), the Proposed Project would represent approximately 2 percent of the 2025 projected commercial use water demand in the GSWC service area. By 2025, commercial water use in the service area is projected to increase 642 AFY over 2015 levels; the Proposed Project would represent 16 percent of this projected commercial use demand increase. By 2040, GSWC is planning for an additional 161 AFY increase in commercial demand. GSWC is planning sufficient supply for commercial development within the Southwest System service area to serve the Proposed Project, as well as other reasonably foreseeable development in all water use categories (e.g., residential, commercial, etc.) through 2040.

GSWC future water supply projections by source, shown above in Table 3.15-10, reflect a normal year condition. In order to assess supply availability during drought conditions, the WSA

42 Golden State Water Company, *Final Report, 2015 Urban Water Management Plan – Southwest*, p. 6-20.
43 Golden State Water Company, 2017. Will Serve Letter for 17 Acres Development between Century Blvd to the north, 103rd Street to the south, Prairie Ave to the west and Doty Ave to the east. November 13.

prepared for the Proposed Project also evaluates future supply reliability in single- and a multiple-dry year scenarios. As discussed in the WSA, and in their respective UWMPs, WBMWD and CBMWD each document that they each have sufficient water supplies to meet projected future demands within their regional service areas during all future conditions, including normal, dry, and multiple-dry years.[44,45,46] Furthermore, Metropolitan's IRP describes a diversified water supply portfolio with current and water supplies to meet its member agencies demands.[47] Please see Appendix M for the WSA prepared for the Proposed Project for more detailed review of these agencies' supply reliability assessments.

Based on information provided by these three wholesale water agencies that supply water to GSWC, the future reliability of GSWC's supply portfolio was evaluated. **Table 3.15-11** compares GSWC supply availability in a single dry year scenario and projected future demand and **Table 3.15-12** compares GSWC supply availability in a multiple-dry year scenario and projected future demand. As these tables indicate, based on information provided by Metropolitan, WBMWD and CBMWD in their respective UWMPs, GSWC projects that it would be able to acquire sufficient water supplies each year from the multiple and diverse sources it has in its supply portfolio to match the projected future demand. Thus, these tables show no difference between supply and demand. Further, because the future demand projections already incorporate conservation and water use efficiency, the demand estimates for single and multiple-dry year scenarios are the same as for normal year. GSWC is not expected to rely on water use cutbacks to meet demand in dry years.

TABLE 3.15-11
SINGLE DRY YEAR SUPPLY AND DEMAND COMPARISON (AFY)

Water Sources	2020	2025	2030	2035	2040
Available Supply (AF)					
Total Supply	33,080	33,501	33,925	34,354	34,789
Normal Year Supply	33,080	33,501	33,925	34,354	34,789
% of Normal Year	100%	100%	100%	100%	100%
Demand (AF)					
Total Dry Demand	33,080	33,501	33,925	34,354	34,789
Normal Year Demand	33,080	33,501	33,925	34,354	34,789
% of Normal Year	100%	100%	100%	100%	100%
Supply/Demand Comparison (AF)					
Supply/Demand Difference	**0**	**0**	**0**	**0**	**0**

SOURCE: Todd Groundwater, 2019. *Water Supply Assessment: Golden State Water Company – Southwest, Inglewood Basketball and Entertainment Center*. July 2019. Table 13 [EIR Appendix M].

44 Metropolitan Water District of Southern California, 2016. Integrated Resources Plan.
45 West Basin Municipal Water District, 2016. *2015 Urban Water Management Plan*.
46 Central Basin Municipal Water District, 2016. *2015 Urban Water Management Plan*.
47 Metropolitan Water District of Southern California, 2016. Integrated Resources Plan, 2015 Update.

TABLE 3.15-12
MULTIPLE DRY YEAR SUPPLY AND DEMAND COMPARISON (AFY)

Water Sources	2020	2025	2030	2035	2040
First Year					
Supply totals	33,080	33,501	33,925	34,354	34,789
Demand totals	33,080	33,501	33,925	34,354	34,789
Difference	**0**	**0**	**0**	**0**	**0**
Second Year					
Supply totals	33,080	33,501	33,925	34,354	34,789
Demand totals	33,080	33,501	33,925	34,354	34,789
Difference	**0**	**0**	**0**	**0**	**0**
Third Year					
Supply totals	33,080	33,501	33,925	34,354	34,789
Demand totals	33,080	33,501	33,925	34,354	34,789
Difference	**0**	**0**	**0**	**0**	**0**

SOURCE: Todd Groundwater, 2019. *Water Supply Assessment: Golden State Water Company – Southwest, Inglewood Basketball and Entertainment Center.* July 2019. Table 14 [EIR Appendix M].

As detailed in the WSA and GSWC's UWMP, and shown in these two tables, GSWC has sufficient water supply to fulfill demand in normal, single dry, and multiple dry years during a 20-year projection.[48] To further increase its supply portfolio, GSWC plans to purchase and store water in the Central Basin and/or WCGB. The exact amounts to be supplied from these projects are not yet quantified, pending further development of purchase agreements, but base agreement water supply will continue to be available. GSWC has a portfolio of supplies to rely on during normal and dry years. The most recent multi-year drought that extended from 2012 through 2016 provides a useful demonstration of the reliability the supply portfolio as GSWC was supplied with 100 percent of demand through this period.

As presented in the UWMP reviewed in this section for the relevant agencies that provide water supply to GSWC, to achieve supply adequacy to meet future demand increases across Southern California, various actions and projects will be needed to both further reduce demand and augment supply. There are three proposed projects in particular that would play a notable role in insuring adequate supply availability to GSWC for its Southwest System service area.

- **SWProject – Delta Conveyance Project.** The California DWR is revising its proposal to modernize the delta conveyance infrastructure component of the SWP. The current proposed project, now under development, will modify the former WaterFix project proposal, and centers on a single Delta tunnel and smaller capacity. The project is intended to help stabilize the reliability of surface water supplies from the Sacramento-San Joaquin Delta while protecting the resources of the Delta. As discussed in the Setting section above, Metropolitan

[48] Todd Groundwater, 2019. *Water Supply Assessment: Golden State Water Company – Southwest, Inglewood Basketball and Entertainment Center.* July 2019.

imports surface via the SWP and distributes this supply to its member agencies, including WBMWD and CBMWD. WBMWD and CBMWD, in turn, sell a portion of the imported supply to GSWC and also use some of it to replenish the WCGB and CGWB, from which GSWC pumps groundwater. The WaterFix Project Final EIR was certified on July 21, 2018, and the project was approved that same day. The EIR certification and approval has since been rescinded by DWR Director, Karla Nemeth on May 2, 2019[49] consistent with Governor Newsom's comments at the February 12, 2019 State of the State address indicating that he did not support the WaterFix project as presently configured and consistent with the Governor's April 29,2019 Executive Order N-10-19 directing preparation of a water resilience portfolio that would include developing a revised delta conveyance project. DWR has stated that it will initiate a new environmental review and permitting process for the updated delta conveyance project with a single tunnel solution.

- **WBMWD Desalinated Ocean Water Supply Project.** WBMWD is pursuing an ocean desalination project that would provide up to 21,500 AFY to its long-term water supply and represents its chief plan to increase water supply to meet future demand increases. GSWC indicates in its UWMP that it plans to look primarily to WBMWD for the additional water supply it needs to meet increases in future demand. WBMWD released a Draft EIR for this project on March 27, 2019.[50] The Final EIR is in preparation.

- **Cadiz Valley Water Conservation, Recovery, and Storage Project (Cadiz Project).** GSWC indicates in its UWMP) that the Cadiz project represents a long-term water transfer opportunity.[51] The project, located in eastern San Bernardino County, is designed to capture and conserve up to 50,000 AFY of groundwater that is largely "lost" through evaporation each year through area dry lakes. GSWC is one of several potential participants that has expressed interest in receiving water from the project, signing a letter of intent to purchase up to 5,000 AFY in 2009. A Final EIR for this project was certified in July 2012 and the project approved.[52] The EIR was upheld through a round of legal challenge and appeals.

The environmental impacts of each of these projects have been documented in previously completed EIRs in compliance with CEQA. Although a new EIR/EIS will be prepared for the updated project, the EIR/EIS document prepared on WaterFix EIR/EIS identified, in detail, the environmental impacts and mitigation requirements for such a delta conveyance project, albeit one of a large scale with two delta tunnels rather than one. Given that the environmental effects of these key projects have been documented, with CEQA to be fully completed for each project, no further discussion of the potential environmental effects of these key projects is provided here.

For the reasons described above and as documented in its UWMP, GSWC would have sufficient planned water supplies available to serve the Proposed Project along with other reasonably foreseeable development within the service area in normal, dry, and multiple dry year scenarios during both the construction period and long-term operation. This impact is **less than significant**.

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49 [HYPERLINK "https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Delta-Conveyance/Rescission-Document_a.pdf?la=en&hash=D5DD2AA425716D87564D71AF13A9608DBE3A594A"].

50 West Basin Municipal Water District, West Basin Ocean Water Desalination Project Draft Environmental Impact Report, March 2019. State Clearinghouse No. 2015081087 Available online at westbasindesal.com.

51 Golden State Water Company UWMP 2016, page 6-18.

52 Santa Margarita Water District, Final EIR for the Cadiz Valley Water Conservation, Recovery, and Storage Project, July 2012, SCH #2011031002.

Mitigation Measure

None required.

Cumulative Impacts

The geographic scope of analysis for cumulative impacts related to water supply and demand is the geographic boundaries of the service area of the GSWC Southwest System.

Impact 3.15-3: Construction and operation of the Proposed Project, in conjunction with other cumulative development within the GSWC Southwest System, could require or result in the relocation or construction of new or expanded water treatment facilities or expansion of existing facilities, the construction or relocation of which could cause significant environmental effects. (Less Than Significant)

As discussed under Impact 3.15-1, water deliveries needed to serve the Proposed Project would use a fraction of the capacity remaining in existing water supply system infrastructure, from major water treatment facilities through the treated water distribution system and the groundwater pumping and distribution system. The Proposed Project would not make a considerable contribution to the cumulative demand on existing water system infrastructure resulting in the need for construction of new or expanded water supply system infrastructure. Therefore, this cumulative impact would be less than significant.

Mitigation Measure

None required.

Impact 3.15-4: Operation of the Proposed Project, in conjunction with other cumulative development and future water demands within GSWC's Southwest System, could result in insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. (Less Than Significant)

Because the impact analysis discussed under Impact 3.15-2 is based on the WSA, which includes consideration of a 20-year cumulative demand within the GSWC Southwest System, the analysis presented under Impact 3.15-2 is the same as that required under Impact 3.15-4. Given that the analysis of water supply sufficiency to serve the Proposed Project considered a 20-year horizon through the year 2040 and also considered future water demand associated with projected growth within GSCW's Southwest System service area, it addresses cumulative effects along with project-specific impacts. The analysis in Impact 3.15-2 documents that GSWC has adequate supply to meet the project demand as well as reasonably foreseeable development during normal, dry, and multiple-dry years and therefore this cumulative impact would be **less than significant**.

Mitigation Measure

None required.

Wastewater Generation and Treatment

3.15.5 Environmental Setting

Regional and Local Setting

Municipal wastewater is generated in the City of Inglewood from residential, commercial, industrial, and public/institutional land uses. LACSD Number 5 manages the wastewater collection and treatment system within the City.[53] Wastewater is collected by gravity sewers and lift stations owned by the City and LACSD.[54] There are two separate sewer systems in the vicinity of the Project Site where wastewater is conveyed: two LACSD trunk sewers (Prairie Avenue Trunk Sewer and South Inglewood Orange Trunk Sewer), and the City of Inglewood local collector sewer lines. Wastewater is transported through these sewer lines to LACSD's Joint Water Pollution Control Plant (JWPCP) in Carson, California. The JWPCP provides both primary and secondary wastewater treatment for an average dry weather flow of 261 MGD, and a peak flow of 330 MGD.[55] The JWPCP has a design capacity of 400 MGD. In 2015, 6,179 AF of wastewater was collected from within the City of Inglewood.

The JWPCP only provides primary and secondary treatment, and effluent produced at the plant does not meet recycled water quality standards. The treated wastewater is disinfected with hypochlorite and discharged to the Pacific Ocean through LACSD's network of outfalls.[56]

Existing Wastewater Generation and Infrastructure at the Project Site

The West Parking Garage Site, East Transportation and Hotel Site, and Well Relocation Site are currently vacant and do not generate wastewater. The six existing developed parcels located in the Arena Site include a fast food restaurant, a motel, a warehouse and light manufacturing facility, a commercial catering business, and a groundwater well and related facilities. These existing uses, excluding the groundwater well and related facilities, generate wastewater that is conveyed by City and LACSD sewer lines and treated at the JWPCP. The existing wastewater demand is estimated based on LACSD wastewater generation factors. **Table 3.15-13** details the existing land uses, the estimated daily average wastewater flow, and estimated peak flow. Based

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53 AECOM, 2019. *Sewer Area Study Inglewood Basketball and Entertainment Center*. April 30, 2019. p. 2.
54 Golden State Water Company, 2016. *2015 Urban Water Management Plan – Southwest.*
55 LACSD, personal communication with Naoko Munakata. May 22, 2019.
56 In 2015, the Metropolitan Water District of Southern California (Metropolitan) and LACSD announced a joint proposal to add Advanced Wastewater Treatment facilities to the JWPCP that would meet recycled water quality standards, and could result in the reuse of up to 168,000 AFY of wastewater. Under this program, water would be purified at the plant and then injected or spread into local groundwater basins.

on the existing land uses, the estimated existing peak wastewater flow generated at the Project Site is approximately 0.032 MGD.

TABLE 3.15-13
ESTIMATED EXISTING WASTEWATER GENERATION AT THE PROJECT SITE

Existing Land Use	Unit Contribution	Daily Average Wastewater Generation Factor (gpd)	Daily Average Flow (gpd)	Peak Flow (2.5 x Average) (MGD)	Peak Flow (cfs)
Commercial (Restaurant and Catering)	2,252 sf	1,000 gallons/1,000 sf	2,252	0.006	0.009
Commercial (Motel)	38 rooms	125 gallons/room	4,750	0.012	0.019
Manufacturing/Warehouse (Food Warehouse)	28,809 sf	200 gallons/1,000 sf	5,762	0.014	0.022
Total	—	—	**12,764**	**0.032**	**0.050**

NOTE:
gpd = gallons per day; MGD = million gallons per day; cfs = cubic feet per second; sf = square feet

SOURCE: ESA, 2019. Generation rates are based off of AECOM, 2019. *Sewer Area Study Inglewood Basketball and Entertainment Center*. April 30, 2019.

The following discussion presents the existing wastewater infrastructure at the Project Site.

Arena Site

The Arena Site is served by the City's 8-inch-diameter sewer lines located within South Prairie Avenue, West 102nd Street, and West Century Boulevard. In addition, LACSD's 15-inch-diameter Orange Trunk Sewer Line is located within South Doty Avenue, east of the Arena Site.

West Parking Garage Site

The West Parking Garage Site is served by the City's existing 8-inch-diameter sewer lines located within West Century Boulevard, West 101st Street, West 102nd Street, and South Prairie Avenue. The LACSD's 30-inch-diameter Prairie Avenue Trunk Sewer is located northwest of the West Parking Garage Site, at the intersection of West Century Boulevard and South Flower Street. The Prairie Avenue Trunk Sewer follows west along West Century Boulevard before turning south along Freeman Avenue, west of the Project Site.

East Transportation and Hotel Site

The East Transportation and Hotel Site is served by LACSD's 15-inch-diameter Orange Trunk Sewer line located north and west of the East Transportation and Hotel Site within West Century Boulevard and South Doty Avenue. Additionally, the site is served by the City's 8-inch-diameter sewer line located within West 102nd Street.

Well Relocation Site

The Well Relocation Site is served by the City's 8-inch-diameter sewer line within West 102nd Street.

3.15.6 Adjusted Baseline Environmental Setting

Section 3.15, Utilities and Service Systems, assumes the HPSP Adjusted Baseline Environmental Setting as described in Section 3.0, Introduction to the Analysis. Accordingly, the wastewater generation associated with the HPSP Adjusted Baseline projects are accounted for as part of the Adjusted Baseline.

Table 3.15-14 details the land uses, daily average, and peak flows for the HPSP Adjusted Baseline projects, which shows that the HPSP Adjusted Baseline projects would generate an estimated peak wastewater flow of 2.38 MGD. This estimate conservatively assumes that no wastewater is currently being generated at the HPSP area under existing conditions.

TABLE 3.15-14
ESTIMATED HOLLYWOOD PARK SPECIFIC PLAN WASTEWATER GENERATION

Hollywood Park Specific Plan Land Use	Unit Contribution	Daily Average Wastewater Generation Factor (gpd)	Daily Average Flow (gpd)	Peak Flow (2.5 x Average) (MGD)	Peak Flow (cfs)
Stadium[a]	70,000 seats	10 gallons/seat/day	700,000	1.75	2.71
Performance Venue[a]	6,000 seats	10 gallons/seat/day	60,000	0.15	0.23
Retail	518,077 sf	100 gallons/1,000 sf	51,808	0.13	0.20
Office	466,000 sf	200 gallons/1,000 sf	93,200	0.23	0.36
Residential	314 du	156 gallons/du	48,984	0.12	0.19
Total	—	—	**953,992**	**2.38**	**3.69**

NOTE:
gpd = gallons per day; MDG = million gallons per day; cfs = cubic feet per second; sf = square feet; du = dwelling unit

[a] The Sewer Area Study differentiates generation rates between the stadium use and the performance venue use. Since the uses of a stadium and a performance venue are similar in nature, the generation rate for both the stadium and the performance venue is the number of seats.

SOURCE: ESA, 2019. Generation rates are based off of AECOM, 2019. *Sewer Area Study Inglewood Basketball and Entertainment Center*. April 30, 2019.

The JWPCP currently provides treatment for a peak flow of 330 MGD, with a capacity of 400 MGD. With the HPSP Adjusted Baseline projects peak flow included as part of the Adjusted Baseline, this analysis reflects that the JWPCP provides treatment for a peak flow of 332.38 MGD of wastewater.[57]

The Sewer Area Study considers the HPSP Inglewood NFL Stadium at Hollywood Park Sewer Area Study findings. The capacities of existing City and LACSD sewer lines were analyzed using the HPSP peak flows and HPSP sewer line extensions,[58] City and LACSD as-built record plans, and existing peak flows and sewer monitoring data.

[57] The HPSP peak flow, rather than average flow, was added to existing average flow conditions to provide a conservative analysis.

[58] HPSP sewer line extension along Hardy and Arbor Vitae is already constructed and taken into account in the Sewer Area Study. No other upgrades are anticipated or planned at the time of this analysis.

3.15.7 Regulatory Setting

Federal

Clean Water Act

Water quality objectives for all waters of the United States are established under applicable provisions of CWA section 303. The CWA prohibits the discharge of pollutants to navigable waters from a point source unless authorized by a National Pollutant Discharge Elimination System (NPDES) permit. Point sources are defined as any discernible, confined, and discrete conveyance including but not limited to any pipe, ditch, channel, tunnel, well, or vessel from which pollutants are discharged. Nonpoint sources come from many different sources including land runoff, precipitation, drainage, seepage, or hydrologic modification. Because implementation of these regulations has been delegated to the State, additional information regarding this permit is discussed under the "State" subheading, below.

National Pollutant Discharge Elimination System Permits

The NPDES permit system was established in the CWA to regulate municipal and industrial point discharges to surface waters of the US. Each NPDES permit for point discharges contains limits on allowable concentrations of pollutants contained in discharges. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits. Section 307 of the CWA describes the factors that the US EPA must consider in setting effluent limits for priority pollutants.

The CWA was amended in 1987 to require NPDES permits for non-point source (i.e., stormwater) pollutants in discharges. Stormwater sources are diffuse and originate over a wide area rather than from a definable point. The goal of NPDES stormwater regulations is to improve the quality of stormwater discharged to receiving waters to the "maximum extent practicable" through the use of structural and non-structural Best Management Practices (BMPs). BMPs can include the development and implementation of various practices including educational measures (workshops informing public of what impacts results when household chemicals are dumped into storm drains), regulatory measures (local authority of drainage facility design), public policy measures, and structural measures (filter strips, grass swales and detention ponds). The NPDES permits that apply to activities in the City of Inglewood are described under local regulations below.

United States Environmental Protection Agency's National Combined Sewer Overflow Control Policy

The US EPA initiated its Combined Sewer Overflow (CSO) Control Policy (40 CFR 122) in April 1994. The CSO Policy provides a national level framework for the control and management of CSOs. The CSO Policy provides guidance regarding how to achieve CWA goals and requirements when faced with management of a CSO.

State

Porter-Cologne Water Quality Control Act

The SWRCB and the Los Angeles RWQCB are delegated authority from the US EPA to implement portions of the CWA, and also implement the state's water quality law, the Porter-Cologne Water Quality Control Act (Porter-Cologne Act). These agencies have established water quality standards that are required by Section 303 of the CWA and the Porter-Cologne Act. The Porter-Cologne Act states that a Water Quality Control Plan, or Basin Plan, will consist of beneficial uses, water quality objectives, and a program of implementation for achieving water quality objectives. A Basin Plan, prepared by the Los Angeles RWQCB, establishes water quality numerical and narrative standards and objectives for rivers and their tributaries within the area subject to the Basin Plan. In cases where the Basin Plan does not contain a standard for a particular pollutant, other criteria apply such as US EPA water quality criteria developed under Section 304(a) of the CWA. The Basin Plan that applies to the Project Site is described under local regulations below.

Local

City of Inglewood General Plan

The City of Inglewood General Plan Conservation Element, adopted on October 21, 1997, addresses the plan for conservation, development and utilization of natural resources found within the jurisdiction of the City. Chapter IV of the Conservation Element addresses the City's wastewater system. While the Conservation Element details the City's concerns related to effluent contaminating the ocean, no specific goals or policies are stated that are relevant to the Proposed Project.

Municipal Separate Storm Sewer System Permit

Los Angeles County and 84 incorporated cities, including the City of Inglewood, have a joint Municipal Separate Storm Sewer System NPDES permit (MS4 Permit) (Permit Order No. R4-2012-0175, NPDES Permit No. CAS004001) that was granted on November 8, 2012, and most recently modified in July 2018. The MS4 Permit is intended to implement BMPs to reduce pollutants in stormwater discharges to the maximum extent practicable. The permittees listed under the joint permit have the authority to develop, administer, implement, and enforce storm water management programs within their own jurisdiction. On June 27, 2013, the cities of El Segundo, Hawthorne, Inglewood, Carson, Lawndale, Lomita, Los Angeles (including the Port of Los Angeles), and the Los Angeles County Flood Control District formed the Dominguez Channel Watershed Management Area Group to develop a collaborative approach to meet the requirements of the MS4 Permit.

Urban storm water runoff is defined in the MS4 Permit as including stormwater and dry weather flows from a drainage area that reaches a receiving water body or subsurface. The permit regulates the discharge of all wet and dry weather urban storm water runoff within the County of Los Angeles (with the exception of the City of Long Beach). Part VI.C of the Los Angeles County MS4 permit allows permittees the flexibility to develop Watershed Management

Programs (WMPs) or Enhanced Watershed Management Programs (EWMPs) to implement the requirements of the permit on a watershed scale through customized strategies, control measures, and BMPs. The Dominguez Channel Watershed Management Area Group developed a EWMP that was approved by the Los Angeles Water Board on February 26, 2016.[59] The EWMP includes water quality priorities for the Dominguez Channel Watershed Management Area, watershed control measures consisting of both structural and non-structural BMPs, financial strategies, and legal authority (permittees have the necessary legal authority to implement the BMPs identified in the EWMP or the legal authority exists to compel implementation of the BMPs).

Water Quality Control Plan: Los Angeles Region Basin Plan

The Los Angeles Region Basin Plan is designed to preserve and enhance water quality and protect beneficial uses of all regional waters. Specifically, the Basin Plan designates beneficial uses for surface and ground waters, sets narrative and numerical objectives that must be attained or maintained to protect designated beneficial uses, and describes implementation programs to protect all waters in the region. The Basin Plan incorporates all applicable state and regional board plans and policies and other pertinent water quality policies and regulations. The Basin Plan is a resource for the regional board and others who use water and discharge wastewater in the Los Angeles Region, and provides valuable information to the public about local water quality issues.

3.15.8 Analysis, Impacts and Mitigation

Significance Criteria

The City has not adopted thresholds of significance for the analysis of impacts to wastewater generation and treatment. The following thresholds of significance have been adapted from CEQA Guidelines Appendix G. A significant impact would occur if the Proposed Project would:

1. Result in a determination by the LACSD, which would serve the project, that it does not have adequate capacity to serve the project's projected demand in addition to LACSD's existing commitments; or
2. Require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects.

Methodology and Assumptions

The following impact analysis evaluates the potential for the Proposed Project to result in changes to existing infrastructure, as well as supply and demand relating to wastewater resources.
A Sewer Area Study was prepared for the Proposed Project (Appendix L), and its analysis and findings are integrated into the analysis below. It is assumed that all aspects of the Proposed Project would comply with all applicable laws, regulations, design standards, and plans.

[59] Dominguez Channel Watershed Management Area Group, 2015. *Enhanced Watershed Management Program*.

As detailed in the Sewer Area Study, the capacities of existing City and LACSD sewer lines were analyzed using City and LACSD as-built record plans, existing peak flows and sewer monitoring data, and the HPSP Inglewood NFL Stadium at Hollywood Park Sewer Area Study[60] findings. The Proposed Project's wastewater demand is estimated based on LACSD wastewater generation factors. Wastewater demands were calculated based on the full day seating capacity for the Arena and by square footage for all other proposed structures within the Project Site. The Project Site is subdivided into four tributary areas, which are based on the four locations where the Project proposes to connect to the sewer lines. These points of connection include: (1) the City's sewer line at South Prairie Avenue and West 102nd Street (point of connection 1); (2) the City's sewer line at West 102nd Street west of South Doty Avenue (point of connection 2); (3) the LACSD Prairie Trunk Sewer at Freeman Avenue and 103rd Street (point of connection 3); and (4) the City's sewer line at West 102nd Street at a manhole east of South Doty Avenue (point of connection 4). Parking structures are not part of the calculations because these facilities would have negligible wastewater generation.

Table 3.15-15 details the main points of connection to the existing sewer system, the daily average and peak flows to each point of connection, and whether there is sufficient capacity to serve the Proposed Project.

Impacts and Mitigation Measures

Impact 3.15-5: Operation of the Proposed Project could result in a determination by LACSD, which would serve the project, that it does not have adequate capacity to serve the project's projected demand in addition to LACSD's existing commitments. (Less than Significant)

Construction

Construction of the Proposed Project would not result in additional wastewater discharges to the JWPCP. Use of the existing on-site uses within the Arena Site (i.e., the existing restaurant, hotel, warehouse and light manufacturing facilities, and commercial catering business) would cease prior to commencement of construction, which would, in turn, eliminate existing wastewater generation. All construction workers would use on-site portable restrooms. No other wastewater would be generated on site that would require treatment during construction. Therefore, because no wastewater would be generated during construction, **no impact** would occur related to the capacity of the JWPCP.

[60] AECOM, 2019. *Sewer Area Study Inglewood Basketball and Entertainment Center*, Appendix L, April 30, 2019.

TABLE 3.15-15
ESTIMATED PROPOSED PROJECT WASTEWATER GENERATION AND SEWER CAPACITY SUMMARY

Point of Connection	Proposed Land Use	Unit Contribution	Daily Average Wastewater Generation Factor (gpd)	Project Daily Average Flow (gpd)	Project Peak Flow (2.5 x Average) (MGD)	Project Peak Flow (cfs)	Pipeline Segment Diameter	Total Pipe Capacity[a] (cfs)	Cumulative Contributing Flow (cfs)[b]	Cumulative Contributing Flow (MGD)[b]	Capacity?[b]
1 (City's sewer line at South Prairie Avenue and West 102nd Street)	Food and Drink Building	24,000 sf	1,000 gallons/ 1,000 sf	24,000	0.06	0.09	8	0.34	0.06	0.04	Yes
							8	0.34	0.10	0.07	Yes
	Mixed Use Building	24,000 sf	100 gallons/ 1,000 sf	2,400	0.01	0.01	8	0.77	0.01	0.01	Yes
	Subtotal	*48,000*		*26,400*	*0.07*	*0.10*					*Yes*
2 (City's sewer line at West 102nd Street west of South Doty Avenue)	20% Arena	3,700 Seats	10 gallons/ Seat/Day	37,000	0.09	0.14	8	0.54	0.14	0.09	Yes
	Subtotal	*3,700*		*37,000*	*0.09*	*0.14*		*0.54*	*0.14*		*Yes*
3 (LACSD Prairie Trunk Sewer at Freeman Avenue and 103rd Street)	80% Arena	14,800 Seats	10 gallons/ Seat/Day	148,000	0.37	0.57	12	0.83	0.83	0.54	Yes
	Practice Facility	85,000 sf	300 gallons/ 1,000 sf	25,500	0.06	0.10					
	Office Space	71,000 sf	200 gallons/ 1,000 sf	14,200	0.04	0.05					
	Sports Medicine Clinic	25,000 sf	300 gallons/ 1,000 sf	7,500	0.02	0.03					
	Community Space	15,000 sf	200 gallons/ 1,000 sf	3,000	0.01	0.01					
	Subtotal			*187,700*	*0.50*	*0.77*		*0.83*	*0.83*		*Yes*
4 (City's sewer line at West 102nd Street at manhole east of South Doty Avenue)	Hotel	150 rooms	125 gallons/ room/Day	18,750	0.05	0.07	8	0.77	0.07	0.05	
	Subtotal			*18,750*	*0.05*	*0.07*		*0.77*	*0.07*		*Yes*
	Total	-						-			-

NOTE:
gpd = gallons per day; MDG = million gallons per day; cfs = cubic feet per second; sf = square feet; du = dwelling unit

[a] Proposed total sewer pipe design capacity was calculated as ½ full for pipe diameters of 12 inches or lower, and ¾ full for pipe diameters of 15 inches or higher. Total pipe capacity does not include residual capacity.

[b] Includes peak flow volumes from the Adjusted Baseline.

SOURCE: AECOM, 2019. *Sewer Area Study Inglewood Basketball and Entertainment Center Project.* April 30, 2019.

Operation

The Proposed Project would increase wastewater generation at the Project Site with the addition of the Arena, practice facility, sports medicine clinic, team offices, retail/restaurants, community space, outdoor plaza, and hotel uses. The Proposed Project would have four points of connection to the existing sewer systems. These points of connection include connections to the City's sewer line at South Prairie Avenue and West 102nd Street (point of connection 1), the City's sewer line at West 102nd Street west of South Doty Avenue (point of connection 2), the LACSD Prairie Trunk Sewer at Freeman Avenue and 103rd Street (point of connection 3), and the City's sewer line at West 102nd Street east of South Doty Avenue (point of connection 4). According to the Sewer Area Study, the existing 8-inch-diameter sewer line along West 102nd Street would be removed or abandoned in the approximately 900-foot linear section of the street that would be vacated to accommodate construction of the Proposed Project. New 8-inch- and 10-inch-diameter pipelines along West 102nd Street would be constructed to serve the proposed uses and their laterals.

Ultimately, the northwestern portion of the Arena Site, which includes the plaza retail and restaurant uses, would drain to City sewer lines at South Prairie Avenue and West 102nd Street. The eastern portion of the Arena Site, which would include 20 percent of the wastewater generated by the Arena, would drain to the existing sewer line along West 102nd Street and then to the Orange Avenue Trunk Sewer along South Doty Avenue. The central and southern portion of the Arena Site, which includes 80 percent of the wastewater generated by the Arena, the practice facility, office space, sports medicine clinic, and community spaces, would drain to the Prairie Avenue Trunk Sewer along Freeman Avenue. In addition, wastewater generated by the proposed hotel use located on the East Transportation and Hotel Site would drain to the City's sewer line at West 102nd Street at the manhole east of South Doty Avenue.

All sewer point of connections that would serve the Project Site are sized between 8 inches and 12 inches in diameter. According to the Sewer Area Study, and as detailed in Table 3.15-15, the sewer mains that would serve the Proposed Project would meet the Los Angeles County capacity standards of no more than half full for mains under 15-inch-diameter and no more than three-quarters full for mains with a diameter of 15 inches and larger. More specifically:

- The Proposed Project would contribute 0.10 cubic feet per second (cfs) (or 0.07 MGD) to the City's sewer line at point of connection 1, which does not exceed the available capacity of 0.17 MGD[61] Therefore, point of connection 1 would have a remaining capacity of 0.10 MGD;
- The Proposed Project would contribute 0.14 cfs (or 0.09 MGD) to point of connection 2, which does not exceed the available capacity of 0.11 MGD. In addition, existing structures on the Project Site have a current existing peak flow of 0.16 MGD. Therefore, the reduction in proposed flow to point of connection 2 would result in additional capacity of 0.07 MGD, which, in turn, results in a remaining capacity of 0.18 MGD;

[61] Estimated capacity for the City's sewer line at South Prairie Avenue and West 102nd Street is 0.23 MGD. Existing peak flow shows an existing peak of 0.06 MGD. This results in an available capacity of 0.17 MGD.

- The Proposed Project would contribute approximately 0.77 cfs (or 0.50 MGD) to point of connection 3, which does not exceed the available capacity of 2.53 MGD. In addition, existing structures on the Project Site have a current existing peak flow of 0.04 MGD and proposed upstream projects would generate a future peak flow of 0.21 MGD. This results in remaining capacity of 1.78 MGD for point of connection 3; and
- The Proposed Project would contribute 0.07 cfs (or 0.05 MGD) to point of connection 4, which does not exceed the available capacity of 0.13 MGD. Therefore, point of connection 4 would have a remaining capacity of 0.06 MGD.

An existing City 8-inch-diameter sewer line along 103rd Street would be upsized to a 12-inch-diameter sewer line and would extend to the Project Site, with a capacity of 0.83 cfs (or 0.54 MGD). With proposed improvements along 103rd Street to upsize the existing 8-inch-diameter sewer line to a 12-inch-diameter sewer line extended to the Project Site, the existing City collector sewer lines and LACSD sewer system would have adequate capacity to serve the Proposed Project.

The wastewater generated by the Proposed Project would be treated at the JWPCP, which has a maximum treatment capacity of 400 MGD and currently provides treatment for a peak flow of 330 MGD. Including peak flows of the Adjusted Baseline projects, the JWPCP provides treatment for a peak flow of 332.38 MGD. Thus, the JWPCP has the capacity to treat an additional 67.62 MGD of wastewater. As shown on Table 3.15-15, the Proposed Project would generate a total peak flow of 0.070 MGD, which would be approximately 1 percent of the JWPCP's available capacity. According to the LACSD Will Serve Letter for the Proposed Project, which can be found in Appendix L, the JWPCP would have sufficient capacity to treat all wastewater generated from the Proposed Project.[62] Because the surrounding sewer mains and JWPCP would have adequate capacity to serve the Proposed Project, this impact would be **less than significant**.

Mitigation Measures

None required.

Impact 3.15-6: Operation of the Proposed Project could require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects. (Less than Significant)

The Proposed Project would result in an increase in wastewater generation at the Project Site. The Proposed Project would include new sewer lines to connect to the existing sewer lines in surrounding streets. As previously explained, wastewater generated by the Proposed Project would be treated at LACSD's JWPCP, which has a maximum treatment capacity of 400 MGD. The JWPCP currently provides treatment for a peak flow of 330 MGD, and with the peak flow

62 County Sanitation Districts of Los Angeles County, 2018. Will Serve Letter for Project Condor. January 10, 2018.

from the HPSP Adjusted Baseline projects included, the JWPCP provides treatment for a peak flow of 332.38 MGD of wastewater. Thus, the JWPCP has the capacity to treat an additional 67.62 MGD of wastewater. As shown on Table 3.15-15, the Proposed Project would generate a total peak flow of 0.72 MGD, which would be approximately 1 percent of the JWPCP's available capacity. Therefore, the JWPCP would have sufficient capacity to treat all wastewater generated from the Proposed Project.[63] According to the LACSD Will Serve Letter for the Proposed Project which can be found in Appendix L, the JWPCP would have sufficient capacity to treat all wastewater generated from the Proposed Project.[64] Because there would be adequate capacity to treat wastewater from the Proposed Project, no new or expanded wastewater treatment facilities would be required, and, thus, this impact would be **less than significant**.

Mitigation Measures

None required.

Cumulative Impacts

The geographic scope of analysis for cumulative impacts related to the JWPCP is the drainage basin of wastewater that is received for treatment at the JWPCP. The geographic scope of analysis for City and LACSD sewer and trunk lines are the network of those sewer lines.

Impact 3.15-7: Operation of the Proposed Project, in conjunction with other cumulative development that would be served by the JWPCP, could cumulatively result in a determination by LACSD that it does not have adequate capacity to serve the project's projected demand in addition to LACSD's existing commitments. (Less than Significant)

Cumulative projects (listed in Section 3.0, Introduction to the Analysis, Table 3.0-2), in conjunction with other cumulative development served by the JWPCP, would increase wastewater generation throughout the region. Of the jurisdictions listed in Table 3.0-2, Cumulative Projects List, the cities of Inglewood, Hawthorne and El Segundo east of Sepulveda Boulevard are served by the JWPCP. **Table 3.15-16** shows the estimated wastewater generation that would be produced by the cumulative projects in these cities, based on land use.

Approximately 5.86 MGD of wastewater requiring treatment at the JWPCP would be generated by cumulative projects under peak flow conditions. As previously detailed, the JWPCP has a maximum treatment capacity of 400 MGD, and currently provides treatment for a peak flow of 332.38 MGD of wastewater (including the HPSP Adjusted Baseline projects). Therefore, the JWPCP would have capacity to treat both the Proposed Project and cumulative projects and can accommodate this projected growth of the cities it serves.

[63] County Sanitation Districts of Los Angeles County, 2018. Will Serve Letter for Project Condor. January 10, 2018.
[64] County Sanitation Districts of Los Angeles County, 2018. Will Serve Letter for Project Condor. January 10, 2018.

TABLE 3.15-16
ESTIMATED CUMULATIVE WASTEWATER GENERATION

Cumulative Project List Number	Land Use	Unit Contribution	Daily Average Wastewater Generation Factor (gpd)	Daily Average Flow (gpd)	Peak Flow (2.5 x Average) (MGD)
5	Hotel	190 rooms	125 gallons/room	23,750	0.06
6	Office	1,751,921 sf	200 gallons/1,000 sf	350,384	0.88
	Warehouse	73,577 sf	25 gallons/1,000 sf	1,839	0.005
	Retail	148,960 sf	100 gallons/1,000 sf	14,896	0.04
7	Hotel	152 rooms	125 gallons/room	19,000	0.05
8	Warehouse	-3,050 sf	25 gallons/1,000 sf	-76,250	-0.19
	Office	3,050 sf	200 gallons/1,000 sf	610	0.002
9	Office	73,000 sf	200 gallons/1,000 sf	14,600	0.04
10	Office Athletic	52,000 sf	200 gallons/1,000 sf	10,400	0.03
	Training Facility (Performance Center)	68,380 sf	300 gallons/1,000 sf	20,490	0.05
11	School	240,000 sf	200 gallons/1,000 sf	48,000	0.12
	School	-90,000 sf	200 gallons/1,000 sf	-18,000	-0.05
12	Hotel	180 rooms	125 gallons/room	22,500	0.06
	Office	63,550 sf	200 gallons/1,000 sf	12,710	0.03
15	Office	611,545 sf	200 gallons/1,000 sf	122,309	0.31
	Retail	13,660 sf	100 gallons/1,000 sf	1,366	0.003
16	Office	93,569 sf	200 gallons/1,000 sf	18,714	0.05
17	Office	106,000 sf	200 gallons/1,000 sf	21,200	0.05
	Warehouse	117,000 sf	25 gallons/1,000 sf	2,925	0.01
18	Hotel	167 rooms	125 gallons/room	20,875	0.05
19	Data Center (Office Building)	180,422 sf	200 gallons/1,000 sf	36,084	0.09
20	Multi-Family	525 du	156 gallons/du	81,900	0.20
	Office	-835,000 sf	200 gallons/1,000 sf	-167,000	-0.42
22	Retail	67,000 sf	100 gallons/1,000 sf	6,700	0.02
23	Office	300,000 sf	200 gallons/1,000 sf	60,000	0.15
24	Hotel	150 rooms	125 gallons/room	18,750	0.05
26	Warehouse	20,819 sf	25 gallons/1,000 sf	520	0.001
	Office	139,558 sf	200 gallons/1,000 sf	27,912	0.07
	Manufacturing	14,025 sf	200 gallons/1,000 sf	351	0.001
27	Retail	3,714 sf	100 gallons/1,000 sf	371	0.001
28	Office	20,955 sf	200 gallons/1,000 sf	4,191	0.01
29	Ice Rink (Amusement)	17,315 sf	350 gallons/1,000 sf	6,060	0.02
34	Multi-Family	610 du	156 gallons/du	95,160	0.24
35	Multi-Family	116 du	156 gallons/du	18,096	0.05
36	Multi-Family	171 du	156 gallons/du	26,676	0.07
	Office	32,500 sf	200 gallons/1,000 sf	6,500	0.02
37	Multi-Family	230 du	156 gallons/du	35,880	0.09
	Restaurant	3,700 sf	1,000 gallons/1,000 sf	3,700	0.01

TABLE 3.15-16
ESTIMATED CUMULATIVE WASTEWATER GENERATION

Cumulative Project List Number	Land Use	Unit Contribution	Daily Average Wastewater Generation Factor (gpd)	Daily Average Flow (gpd)	Peak Flow (2.5 x Average) (MGD)
38	Multi-Family	6 du	156 gallons/du	936	0.002
39	Hotel	350 rooms	125 gallons/room	43,750	0.11
40	Hotel	119 rooms	125 gallons/room	14,875	0.04
41	Multi-Family	241 du	156 gallons/du	37,596	0.09
42	Multi-Family	4 du	156 gallons/du	624	0.002
43	Multi-Family	4 du	156 gallons/du	624	0.002
44	Multi-Family	12 du	156 gallons/du	1,872	0.005
45	Multi-Family	38 du	156 gallons/du	5,928	0.01
46	Multi-Family	10 du	156 gallons/du	1,560	0.004
47	Multi-Family	3 du	156 gallons/du	468	0.001
48	Multi-Family	12 du	156 gallons/du	1,872	0.005
49	Multi-Family	5 du	156 gallons/du	780	0.002
50	Living Facility (Hospitals Convalescent)	18 beds	85 gallons/beds	1,530	0.004
51	Multi-Family	18 du	156 gallons/du	2,808	0.01
52	Multi-Family	4 du	156 gallons/du	624	0.002
53	Hotel	120 rooms	125 gallons/room	15,000	0.04
54	Multi-Family	3 du	156 gallons/du	468	0.001
55	Multi-Family	7 du	156 gallons/du	1,092	0.003
56	Multi-Family	12 du	156 gallons/du	1,872	0.005
57	Retail	2,542 sf	100 gallons/1,000 sf	254	0.001
58	Multi-Family	40 du	156 gallons/du	6,240	0.02
59	Multi-Family	116 du	156 gallons/du	18,096	0.05
60	Commercial	1,312 sf	100 gallons/1,000 sf	131	0.0003
	Commercial	-1,210 sf	100 gallons/1,000 sf	-121	-0.0003
61	Retail	40,000 sf	100 gallons/1,000 sf	4,000	0.01
62	Multi-Family	20 du	156 gallons/du	3,120	0.01
63	Multi-Family	310 du	156 gallons/du	48,360	0.12
64	Self-Storage (Warehouse)	81,613 sf	25 gallons/1,000 sf	2,040	0.01
65	Multi-Family	3 du	156 gallons/du	468	0.001
66	Living Facility (Hospitals Convalescent)	18 beds	85 gallons/beds	1,530	0.004
67	Multi-Family	2,186 du	156 gallons/du	341,016	0.85
	Retail	371,923 sf	100 gallons/1,000 sf	37,192	0.09
	Office	3,567,314 sf	200 gallons/1,000 sf	713,463	1.78
	Hotel	300 rooms	125 gallons/room	37,500	0.09

TABLE 3.15-16
ESTIMATED CUMULATIVE WASTEWATER GENERATION

Cumulative Project List Number	Land Use	Unit Contribution	Daily Average Wastewater Generation Factor (gpd)	Daily Average Flow (gpd)	Peak Flow (2.5 x Average) (MGD)
68	Multi-Family	243 du	156 gallons/du	37,908	0.09
	Retail	40,000 sf	100 gallons/1,000 sf	4,000	0.01
69	Philharmonic Association (Commercial)	25,500 sf	100 gallons/1,000 sf	4,000	0.01
70	Multi-Family	5 du	156 gallons/du	780	0.002
71	Self-Storage (Warehouse)	159,498 sf	25 gallons/1,000 sf	3,987	0.01
72	Car Rental (Office)	173,804	200 gallons/1,000 sf	34,761	0.09
73	Hotel	4 rooms	125 gallons/room	500	0.001
Total		—		—	**5.86**

NOTE:
gpd = gallons per day; MDG = million gallons per day; sf = square feet; du = dwelling unit

SOURCE: ESA, 2019. Generation rates are based off of AECOM, 2019. *Sewer Area Study Inglewood Basketball and Entertainment Center.* April 30, 2019.

In addition, similar to the Proposed Project, all cumulative projects within the JWPCP service area would be required to verify to coordinate with their respective wastewater treatment providers to ensure that existing capacity exists to convey and treat the wastewater generated by the new developments prior to implementation. Based on the above considerations, the Proposed Project, in conjunction with cumulative development within the City and LACSD sewer and trunk line service area, implementation of the Proposed Project would not result in a determination by LACSD, which would serve the Project, that it does not have adequate capacity to serve the Project's projected demand in addition to LACSD's existing commitments. Therefore, the cumulative impact would be **less than significant**

Mitigation Measures

None required.

Impact 3.15-8: Operation of the Proposed Project, in conjunction with other cumulative development, could require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects. (Less than Significant)

The geographic scope for cumulative impacts on City and LACSD wastewater services is the network of City and LACSD sewer lines running to the JWPCP. The JWPCP treats wastewater generated throughout the region, including for the cities of Inglewood, Hawthorne, and

El Segundo east of Sepulveda Boulevard. Table 3.15-16 shows the wastewater generation that would be produced by the cumulative projects in cities served by the JWPCP. The cumulative projects would generate approximately 3 MGD requiring treatment at the JWPCP under peak flows. The JWPCP collects a peak flow of 332.38 MGD (including the HPSP Adjusted Baseline projects), leaving a remaining capacity of 67.62 MGD. The Proposed Project (0.72 MGD) plus the cumulative projects (5.86 MGD) would generate a total of 6.58 MGD under peak flow conditions. Therefore, the JWPCP would have capacity to treat both the Proposed Project and cumulative projects.

In addition, similar to the Proposed Project, other cumulative projects within the JWPCP service area would be required to verify with LACSD and City engineers that existing capacity exists to convey and treat the wastewater generated by the new developments prior to implementation. Based on the above considerations, the Proposed Project, in conjunction with cumulative development within the City and LACSD sewer and trunk line area, implementation of the Proposed Project would not require new or expanded wastewater treatment facilities. Therefore, the cumulative impact would be **less than significant**.

Mitigation Measures

None required.

Storm Drainage Conveyance and Treatment

3.15.9 Environmental Setting

Existing Soil Drainage

The Project Site currently consists of both pervious and impervious surfaces, including commercial buildings, a hotel, a fast-food restaurant, and large portions of vacant land. The Project Site is currently made up of approximately 15 percent impervious surfaces and 85 percent pervious surfaces.

Preliminary investigations of the Project Site indicate that the site's native soil characteristics have poor drainage with a low infiltration rate.[65,66] According to the Los Angeles County Guidelines for LID Stormwater Infiltration, minimum standard for soil infiltration is 0.3 inches per hour.[67] Preliminary percolation tests were conducted at five selected locations at the Project Site. Based on the results, infiltration rates for the soils in the upper 10 feet range from 0.32 to 3.52 inches per hour. However, the deeper subsurface native soils at the Project Site consist

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65 AECOM, 2019. *Inglewood Basketball & Entertainment Center Project Low-Impact Development (LID) Report*. May 2, 2019. p. 2.
66 AECOM, 2018. *Preliminary Geotechnical Investigation*. September 14, 2018. p. 34.
67 County of Los Angeles Department of Public Works, 2014. *Administrative Manual: Guidelines for Design, Investigation, and Reporting Low-Impact Development Stormwater Infiltration*. p. 2.

predominately of clayey soils with estimated infiltration rates lower than 0.3 inches per hour and with little or no connectivity to permeable soil horizons.

These characteristics indicate that infiltration is largely infeasible at the Project Site, and that the Project Site currently provides very little percolation of soils. Thus, under existing conditions, stormwater reaching the Project Site does not percolate, and existing drainage from the Project Site flows to adjacent off-site storm drain facilities and ultimately into the City maintained storm drain mains located along all streets surrounding the Project Site.

Existing Drainage Infrastructure at the Project Site

Arena Site

Storm drainage facilities that serve the Arena Site include a 60-inch-diameter storm drain pipeline within South Prairie Avenue and a storm drain pipeline within West 102nd Street which bisects the Arena Site in an east–west direction.[68] In addition, an existing catch basin is located at the intersection of West 102nd Street and South Prairie Avenue.

West Parking Garage Site

The West Parking Garage Site is currently undeveloped, with West 101st Street crossing through the site in an east–west direction. This portion of the Project Site includes a 24-inch-diameter storm drain pipeline that begins in West 101st Street, travels north to West Century Boulevard, and turns east along West Century Boulevard. This portion of the Project Site also utilizes the abovementioned 60-inch-diameter storm drain pipeline within South Prairie Avenue.

East Transportation and Hotel Site

The East Transportation and Hotel Site is currently undeveloped. Storm drainage pipelines are located within South Doty Avenue. In addition, a 54-inch-diameter storm drainage pipeline crosses under parcels to the west of the East Transportation and Hotel Site, extending north through West Century Boulevard and south through West 102nd Street.

Well Relocation Site

The Well Relocation Site is located east of the Arena Site and would contain a city-owned and operated potable water well. The Well Relocation Site is currently undeveloped. This portion of the Project Site includes storm drainage pipelines within West 102nd Street and South Doty Avenue, detailed above.

Existing Runoff at the Project Site

The existing site runoff is discharging to surrounding public streets where it is collected by the existing storm drain system. There are currently no existing on-site storm drain systems in place. The existing runoff from the Project Site to existing storm drain systems is as follows: (1) Arena Site runoff of 18.4 cfs flows to storm drain lines located on Prairie Avenue; (2) West Parking

[68] AECOM, 2015. *Existing Conditions Plan Sheet C-101.*

Garage Site runoff includes 2.6 cfs to storm drain lines located on Century Boulevard and 4.8 cfs to storm drain lines east of Doty Avenue; and (3) East Transportation and Hotel Site runoff of 6.3 cfs flows to storm drain lines east of Doty Avenue.[69]

3.15.10 Adjusted Baseline Environmental Setting

Section 3.15, Utilities and Service Systems, assumes the HPSP Adjusted Baseline Environmental Setting as described in Section 3.0, Introduction to the Analysis.

In its current condition, a portion of the HPSP area is under construction, largely resulting in pervious exposed soils, haul roads, and some paved areas. Compared to the area's previous use as a horse racetrack with large expanses of paved surface parking, and current construction conditions, the HPSP Adjusted Baseline projects will add impervious surfaces. At the time of the opening of the Proposed Project, the permeability of the HPSP Adjusted Baseline projects area would be limited to landscaped areas, designed open space and stormwater management facilities (Lake Park), and unpaved surfaces which may be used for parking on an interim basis. These features would be designed to reduce runoff and treat pollutants of concern in accordance with NPDES stormwater regulations, discussed further below.

Drainage infrastructure at the HPSP area associated with the previous horse racetrack is currently being rerouted and replaced as necessary and additional drainage infrastructure will be constructed to accommodate the new HPSP Adjusted Baseline projects. New drainage infrastructure includes various on-site drains, open-channel drainage, an off-site bypass north of the HPSP area, catch basins, vegetated bio-retention areas, and the Lake Park stormwater treatment system through which runoff from developed portions of the HPSP Adjusted Baseline projects area will be directed. The HPSP Adjusted Baseline projects will include BMPs as required by the site-specific Stormwater Pollution Prevention Plan (SWPPP) to reduce runoff flows and treat runoff water leaving the site, in accordance with federal, state, and local regulations. As a result of the implementation of BMPs and compliance with NPDES stormwater regulations within the HPSP area, under the Adjusted Baseline stormwater flows in the vicinity of the Project Site will remain similar to existing conditions.

3.15.11 Regulatory Setting

Federal

National Pollutant Discharge Elimination System Permits

The NPDES permit system was established in the CWA to regulate municipal and industrial point discharges to surface waters of the US. Each NPDES permit for point discharges contains limits on allowable concentrations of pollutants contained in discharges. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits. Section 307 of the CWA

[69] AECOM, 2019. *Inglewood Basketball & Entertainment Center Project Preliminary Hydrology Report.* May 1, 2019. pp. 3-4.

describes the factors that the US EPA must consider in setting effluent limits for priority pollutants.

The CWA was amended in 1987 to require NPDES permits for non-point source (i.e., stormwater) pollutants in discharges. Stormwater sources are diffuse and originate over a wide area rather than from a definable point. The goal of NPDES stormwater regulations is to improve the quality of stormwater discharged to receiving waters to the "maximum extent practicable" through the use of structural and non-structural BMPs. BMPs can include the development and implementation of various practices including educational measures (workshops informing public of what impacts results when household chemicals are dumped into storm drains), regulatory measures (local authority of drainage facility design), public policy measures, and structural measures (filter strips, grass swales and detention ponds). The NPDES permits that apply to activities in the City of Inglewood are described under local regulations below.

State

General Construction Activity Stormwater Permit

In accordance with NPDES regulations, to minimize the potential effects of construction runoff on receiving water quality, the State requires that any construction activity affecting 1 acre or more obtain coverage under a General Construction Activity Stormwater Permit (General Construction Permit). The current General Construction Permit is the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ, NPDES No. CAS000002, effective July 1, 2010. General Construction Permit applicants are required to prepare and implement a SWPPP which includes implementing BMPs to reduce construction effects on receiving water quality by implementing erosion and sediment control measures and reducing or eliminating non-stormwater discharges. Examples of typical construction BMPs in SWPPPs include, but are not limited to: using temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils; storing materials and equipment so as to ensure that spills or leaks cannot enter the storm drain system or surface water; developing and implementing a spill prevention and cleanup plan; and installing sediment control devices such as gravel bags, inlet filters, fiber rolls, or silt fences to reduce or eliminate sediment and other pollutants from discharging to the City drainage system or receiving waters.

Construction activity that results in soil disturbances of less than 1 acre is subject to the General Construction Permit if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB.

Local

City of Inglewood General Plan

The City of Inglewood General Plan Conservation Element, adopted on October 21, 1997, addresses the plan for conservation, development and utilization of natural resources found within the jurisdiction of the City. Chapter IV of the Conservation Element addresses the City's storm drain system. While the Conservation Element details the City's concerns related to pollutants

entering the storm drainage system and contaminating the coastal and ocean environment, no specific goals or policies are stated that are relevant to the Proposed Project.

Municipal Separate Storm Sewer System Permit

The City of Inglewood, along with Los Angeles County and its 83 other incorporated cities, operate pursuant to a joint Municipal Separate Storm Sewer System NPDES permit (MS4 Permit) intended to implement BMPs to reduce pollutants in stormwater discharges to the maximum extent practicable. Refer to Section 3.15.7, above, for a more detailed discussion of the City's MS4 Permit.

Standard Urban Stormwater Mitigation Plan and City of Inglewood Municipal Code Low-Impact Development Requirements

In 2000, the Standard Urban Stormwater Mitigation Plan (SUSMP) was approved by the Los Angeles RWQCB as part of the MS4 program to address stormwater pollution from new construction and redevelopment. The SUSMP contains a list of minimum BMPs that must be employed to infiltrate or treat stormwater runoff, control peak flow discharge, and reduce post-project discharge of pollutants from stormwater conveyance systems. Based upon land type, the SUSMP defines the types of practices that must be included and issues that must be addressed as appropriate to the development type and size.

One of the most important requirements of the SUSMP is the specific sizing criteria for stormwater treatment BMPs for new development and significant redevelopment projects. In 2015, the City replaced the SUSMP with section 10-208 of the City of Inglewood Municipal Code, titled "Low-Impact Development Requirements for New Development and Redevelopment." This portion of the Municipal Code builds on the SUSMP and establishes requirements for construction activities and facility operations of development projects to comply with the current MS4 Permit. These include requirements to lessen the water quality impacts of development by using smart growth practices and integrate LID practices and standards for stormwater pollution mitigation

County of Los Angeles Low-Impact Development Standards Manual

In 2014, the County of Los Angeles prepared the Low-Impact Development Standards Manual (LID Standards Manual) to comply with the requirements of the NPDES MS4 Permit for stormwater and non-stormwater discharges from the MS4 within the coastal watersheds of Los Angeles County.[70] The LID Standards Manual provides guidance for the implementation of stormwater quality control measures in new development and redevelopment projects in unincorporated areas of the County with the intention of improving water quality and mitigating potential water quality impacts from stormwater and non-stormwater discharges. The City of Inglewood implements these standards for projects within the city.

[70] County of Los Angeles Department of Public Works, 2014. *Low-Impact Development Standards Manual*. February 2018.

3.15.12 Analysis, Impacts and Mitigation

Significance Criteria

The City has not adopted thresholds of significance for the analysis of impacts to storm drainage capacity and conveyance. The following threshold of significance has been adapted from CEQA Guidelines Appendix G. A significant impact would occur if the Proposed Project would:

1. Require or result in the relocation or construction of new or expanded storm water drainage facilities, the construction or relocation of which could cause significant environmental effects.

Methodology and Assumptions

The following impact analysis evaluates the potential for the Proposed Project to result in changes to existing infrastructure and capacity relating to stormwater drainage and conveyance. It is assumed that all aspects of the Proposed Project would comply with all applicable laws, regulations, design standards, and plans. An analysis of impacts to hydrology, water quality, and groundwater is included in Section 3.9, Hydrology and Water Quality.

Impacts and Mitigation Measures

Impact 3.15-9: Construction and operation of the Proposed Project could have the potential to require or result in the relocation or construction of new or expanded storm water drainage facilities or expansion of existing facilities, the construction or relocation of which could have the potential to cause significant environmental effects. (Less than Significant with Mitigation)

Construction

Existing drainage from the Project Site flows to adjacent off-site City-maintained storm drain facilities and ultimately into storm drain mains located along all streets surrounding the Project Site. Construction activities, including grading, excavation, and installation of on-site drainage systems, would alter the drainage pattern of the Project Site potentially increasing runoff flows into the existing City drainage system.

In compliance with Municipal Code section 10-208, the project applicant would be required to prepare and submit to the City an LID Plan, which would establish LID standards and practices for stormwater pollution mitigation consistent with the County's LID Standards Manual. The LID Plan would demonstrate the Proposed Project's compliance with the MS4 Permit.

Before construction could begin, a SWPPP would be developed and a Notice of Intent (NOI) filed with the Los Angeles RWQCB. After the Los Angeles RWQCB and the City of Inglewood confirm the applicability of the General Construction Permit, and approve the LID Plan and the SWPPP, construction could commence. Construction would thereafter be required to implement and maintain the BMPs outlined in the LID Plan and SWPPP. Through the building inspection process, the City would verify and enforce the implementation of the LID Plan and SWPPP

With implementation of BMPs as required by the LID Plan and SWPPP, runoff discharged from the Project Site would be reduced. The rate of runoff flows leaving the Project Site would be reduced through implementation of typical construction BMPs including, but not limited to, silt fences, fiber rolls, compost blankets, avoiding heavy grading and earthwork operations during the rainy season, and incorporating landscaping as early as possible. By limiting and controlling runoff, the flow of water to stormwater drainage systems would be reduced.

The expansion of stormwater drainage facilities at the Project Site would be a component of the Proposed Project itself, the construction of which is addressed as part of the Proposed Project. The environmental effects of construction of the Proposed Project stormwater drainage facilities is addressed in environmental analyses in other sections of this Draft EIR, such as in Sections 3.4, Cultural and Tribal Cultural Resources; 3.6, Geology and Soils; 3.8, Hazards and Hazardous Materials; 3.9, Hydrology and Water Quality; and 3.11, Noise and Vibration. Compliance with the MS4 permit regulations, NPDES General Construction Permit, and Inglewood Municipal Code regulations as outlined above would reduce runoff discharged from the Project Site during construction of the Proposed Project. While these regulatory instruments are designed to ensure that construction projects result in reduced runoff, because final stormwater drainage improvement plans have not yet been reviewed and approved by the City or Los Angeles RWQCB, this impact would be considered **potentially significant**.

Operation

As detailed above, preliminary engineering investigations of the Project Site indicate that the site's native soil characteristics have poor drainage with low infiltration rates.[71,72] Under existing conditions, stormwater reaching the Project Site does not percolate, and existing drainage from the Project Site flows to adjacent off-site storm drain facilities and ultimately in to the City maintained storm drain mains located along all streets surrounding the Project Site. While the Project Site would add impervious surfaces, drainage would continue to run into surrounding drainage infrastructure, similar to existing conditions. In addition, as detailed in Section 3.9, Hydrology and Water Quality, the Proposed Project would include the following on-site drainage features and infrastructure improvements at the Arena Site, West Parking Garage Site, and East Transportation and Hotel Site, all of which would connect to existing storm drains within surrounding streets, described under Environmental Setting, above.

Arena Site

Under the Proposed Project, an approximately 350-foot linear section of West 102nd Street from South Prairie Avenue to a line approximately 335 feet west of South Doty Avenue would be vacated and the Arena would be built over the street. The Proposed Project would construct new site access roads along the periphery of the Arena. The existing catch basin at the intersection of West 102nd Street and South Prairie Avenue would be removed, along with the existing storm

71 AECOM, 2019. *Inglewood Basketball & Entertainment Center Project Low-Impact Development (LID) Report.* May 2, 2019. p. 2.
72 AECOM, 2018. *Preliminary Geotechnical Report.* September 14, 2018. p. 34.

drain line within West 102nd Street. Stormwater pipelines, storm drains, and storm drain overflow pipes would be installed within and along the proposed site access roads.

The new stormwater pipelines within the proposed site access roads would connect to the existing storm drain lines within South Prairie Avenue. Grate opening catch basins, stormwater pipelines, and storm drain overflow pipelines would also be installed within the northern portion of the Arena Site to accommodate the public plaza, outdoor stage, community space, and retail/restaurant uses. Bio-filtration systems would be installed throughout the Arena Site, including but not limited to, along South Prairie Avenue, along the proposed site access roads, and within the public plaza space.

West Parking Garage Site

With implementation of the Proposed Project, the proposed parking garage would be constructed over a portion of West 101st Street, and new site access roads would be constructed along the periphery of the parking garage to redirect traffic. An underground precast detention and pretreatment system would be installed west of the parking garage under the westerly proposed site access road. Stormwater pipelines and a side opening catch basin would be installed within West 101st Street to connect the proposed detention and pretreatment system to the existing storm drain line within West 101st Street. Stormwater pipelines, storm drain overflow pipe, and bio-filtration systems would be installed within the proposed periphery site access roads. In addition, a trench drain would be installed at the southwest corner of the West Parking Garage Site.

East Transportation and Hotel Site

Under the Proposed Project, stormwater pipelines and storm drain overflow pipe would be installed along the boundary of the East Transportation and Hotel Site. An underground precast detention and pretreatment system would be installed at the southwest corner of the East Transportation and Hotel Site. Stormwater pipelines would be installed within West 102nd Street to connect the proposed detention and pretreatment system to existing storm drain line within West 102nd Street.

Well Relocation Site

Under the Proposed Project, no storm drain infrastructure improvements would occur on the Well Relocation Site.

Analysis

As discussed above, under existing conditions, stormwater reaching the Project Site does not percolate, and existing drainage from the Project Site flows to adjacent off-site storm drain facilities and ultimately in to the City maintained storm drain mains located along all streets surrounding the Project Site. In particular, existing runoff from the Project Site to existing storm drain systems is as follows: (1) Arena Site runoff of 18.4 cfs flows to storm drain lines located on Prairie Avenue; (2) West Parking Garage Site runoff includes 2.6 cfs to storm drain lines located

on Century Boulevard and 4.8 cfs to storm drain lines east of Doty Avenue; and, (3) East Transportation and Hotel Site runoff of 6.3 cfs flows to storm drain lines east of Doty Avenue.

Under the Proposed Project, portions of West 102nd Street and West 101st Street that cross the Project Site would be vacated and constructed over, which would include the removal of drainage features (including stormwater pipelines and an existing catch basin) within these roadways. The Proposed Project would include new site access roads around the periphery of the Arena Site and West Parking Garage Site, which would include new stormwater pipelines, storm drains, and storm drain overflow pipes. These features would also be constructed at the East Transportation and Hotel Site. In addition, the Proposed Project would include grate opening catch basins, side opening catch basins, underground precast detention and pretreatment systems, and bio-filtration systems throughout the Project Site. All proposed on-site drainage features would be required to be approved by City engineers and comply with local regulations.

The Proposed Project would be required to comply with all applicable drainage regulations and standards, including the City's Municipal Code and the County's LID Standards Manual. An LID Report was prepared for the Proposed Project, and acts as the Proposed Project's preliminary stormwater drainage plan. According to the LID Report, the Proposed Project would utilize bio-filtration planters and bio-filtration systems to treat the stormwater runoff. Runoff would be directed from drainage areas to on-site bio-filtration plants and bio-swales, slowing the rate of runoff and in turn slowing the amount of water entering the stormwater drainage system. The bio-filtration systems are designed to capture site runoff from roof drains, treat the runoff through biological reactions within the planter soil media, and discharge at a rate intended to mimic pre-developed conditions. As shown in **Table 3.15-17**, based on a design storm 24-hour rain event, the Proposed Project would include sufficient bio-filtration systems to treat stormwater run-off from the Project Site.

The expansion of stormwater drainage facilities at the Project Site are a component of the Proposed Project itself, the construction of which and their environmental effects is considered throughout the EIR. With construction of on-site drainage features and infrastructure improvements that would connect to existing storm drains within surrounding streets, along with implementation of regulations and BMPs, the Proposed Project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems. According to the LID Report, drainage infrastructure at the Project Site would be designed to discharge stormwater at a rate intended to mimic pre-developed conditions.[73] However, final plans, including the SWPPP and operational BMPs, have not yet been approved by the City, and therefore, impacts related to the alteration of drainage patterns during operation would be **potentially significant**.

[73] AECOM, 2019. *Inglewood Basketball & Entertainment Center Project Low-Impact Development (LID) Report.* May 2, 2019. p. 3.

TABLE 3.15-17
POST DEVELOPMENT CONDITIONS AND BMP SUFFICIENCY SUMMARY

				BMP Sufficiency Summary			
Drainage Subarea	**Area (sf)**	**Qpm (cfs)**	**SWQDv[a] x 1.5 (cf)**	**Bio-Filtration System**	**Required (sf)**	**Provided (sf)**	**Sufficient**
A (Hotel portion of the East Transportation and Hotel Site)	55,094	0.3687	6,251	Bio-filtration/ Stormwater Planter	2,500	2,600	Yes
B (Parking portion of the East Transportation and Hotel Site)	168,409	0.8625	18,122	Bio-filtration/ Stormwater Planter	7,249	7,300	Yes
CD (Arena Site)	712,655	3.8106	81,434	Bio-filtration/ Stormwater Planter	32,573	33,000	Yes
E (Southern portion of the West Parking Garage Site)	136,207	1.0662	15,122	Bio-filtration/ Stormwater Planter	6,049	6,100	Yes
F (Northern portion of the West Parking Garage Site)	105,106	0.8028	10,950	Bio-filtration/ Stormwater Planter	4,380	4,500	Yes
Totals	**1,101,446**	**7.8659**	**120,855**				

NOTES:
cfs = cubic feet per second; sf = square feet
a Requirements are based on treating a specific volume of stormwater run-off from the Project Site (SWQDv). The design storm from which the SWQDv is calculated is defined as the greater of: the 0.75-inch, 24-hour rain event, or; the 85th percentile, 24-hour rain event determined by the Los Angeles County 85th percentile precipitation isohyetal map. In this case, the SWQDv volume from the 85th percentile, 24-hour rain event is utilized.

SOURCE: AECOM, 2019. *Inglewood Basketball & Entertainment Center Project Low-Impact Development (LID) Report*. May 2, 2019. p. 4

Mitigation Measure 3.15-9

Implement Mitigation Measure 3.9-1(a).

Level of Significance After Mitigation: With the implementation of Mitigation Measure 3.9-1a, construction of the Proposed Project would comply with applicable regulations as approved by the City and the Los Angeles RWQCB that require preparation and implementation of an LID Plan and SWPPP. Thus, the effects of expansion of storm water drainage facilities would be reduced to insignificance. Thus, this impact would be considered **less than significant**.

Cumulative Impacts

The geographic scope of analysis for cumulative impacts related to surface water runoff and drainage capacity is the drainage basin that contributes stormwater runoff flows to the network of existing City-maintained storm drain facilities which would also serve the Project Site.

Impact 3.15-10: Construction and operation of the Proposed Project, in conjunction with other cumulative development, could have the potential to result in the relocation or construction of new storm water drainage facilities or expansion of existing facilities, the construction or relocation of which could have the potential to cause significant environmental effects. (Less than Significant with Mitigation)

Because the City is largely developed with impervious surfaces, cumulative projects (listed in Section 3.0, Introduction to the Analysis, Table 3.0-2) would involve redevelopment of existing paved or developed sites, and would not substantially increase the amount of impervious surfaces. Thus, the change of runoff to stormwater drainage systems would largely be negligible after development of cumulative projects. Additionally, as previously discussed, construction and operation of cumulative projects, including the Proposed Project, would be required to comply with applicable stormwater runoff regulations, including the NPDES General Construction Permit, the City's Municipal Code section 10-208, and the County's LID Standards Manual. BMPs associated with these regulations would reduce runoff, therefore reducing the amount of stormwater entering the drainage systems.

In addition, over time the redevelopment of previously urbanized parcels would eliminate outdated water drainage features that no longer meet current regulations. Older infrastructure would be replaced with features that would provide higher quality of stormwater runoff than exists under current conditions. Nevertheless, because final stormwater drainage improvement plans for most cumulative projects have not yet been reviewed and approved by the local municipal government or the Los Angeles RWQCB, the cumulative impact of construction and operation of cumulative projects, including the Proposed Project, would be considered **potentially significant**.

As discussed above in Impact 3.15-9, the design of the Proposed Project is in an early phase, and specific BMPs have not been identified and approved by the City or the Los Angeles RWQCB. Therefore, the Proposed Project would have a considerable contribution to this impact, and the cumulative impact would be **potentially significant**.

Mitigation Measure 3.15-10

Implement Mitigation Measure 3.9-1(a).

Level of Significance After Mitigation: With the implementation of Mitigation Measures 3.9-1a, construction of the Proposed Project would comply with applicable regulations as approved by the City and the Los Angeles RWQCB and the expansion of storm water drainage facilities would not cause a significant environmental effect. Therefore, the Proposed Project with mitigation would not result in a considerable contribution to a potentially significant cumulative impact. Thus, this cumulative impact would be **less than significant**.

Solid Waste Generation and Landfill Capacity

3.15.13 Environmental Setting

Regional and Local Setting

The City of Inglewood is served by Consolidated Disposal Services (CDS), a subsidiary of Republic Services, Inc., which provides waste and recycling collection services for residential and commercial uses.[74] Solid waste is taken to the CDS American Waste Transfer Station where it is sorted. Residual garbage is taken to the Consolidated Volume Transport Disposal and Recycling Center. Recycling and green waste is taken to CDS' Compton Transfer Station. Solid waste is then transferred to a CDS-owned facility, the Sunshine Canyon Landfill in Sylmar, California.[75]

The Sunshine Canyon Landfill handles approximately one-third of the daily waste of all of Los Angeles County.[76] The landfill is permitted to receive a maximum of 12,100 tons per day of solid waste, or 4.4 million tons per year of solid waste. In 2016 the landfill accepted an average of 7,496 tons of waste per day, and in 2018 accepted an average of 8,300 tons of waste per day (or 3 million tons per year of solid waste).[77,78] The landfill has an approximate cease operation date of 2037, and has approximately 96,800,000 cubic yards, or 62,110,000 tons, of remaining capacity.[79,80]

3.15.14 Adjusted Baseline Environmental Setting

Section 3.15, Utilities and Service Systems, assumes the HPSP Adjusted Baseline Environmental Setting as described in Section 3.0, Introduction to the Analysis. **Table 3.15-18** details the estimated solid waste that would be generated by the HPSP Adjusted Baseline projects, by land use. The HPSP Adjusted Baseline projects are anticipated to generate approximately 6,785 tons per year of solid waste. Assuming all projects become operational in 2020, the four years between operation of the HPSP Adjusted Baseline projects (2020) and operation of the Project (2024) would generate a total of approximately 27,140 tons of solid waste. The Sunshine Canyon Landfill currently accepts an average of 8,300 tons of waste per day, or 3 million tons per year of solid waste, with a maximum allowable throughput of 4.4 million tons per year of solid waste.

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74 City of Inglewood, 2018. City of Inglewood Waste Collection FAQs. Available: https://www.cityofinglewood.org/FAQ.aspx?TID=30. Accessed November 28, 2018.

75 City of Inglewood, 2012. Solid Waste Proposal Summary. Available: https://www.cityofinglewood.org/DocumentCenter/View/2716/a2pdf?bidId=.

76 Republic Services, Inc., 2018. Sunshine Canyon Landfill: About. Available: [HYPERLINK "https://sunshinecanyonlandfill.com/about/"]. Accessed November 28, 2018.

77 County of Los Angeles, 2017. Countywide Integrated Waste Management Plan 2016 Annual Report. Available: [HYPERLINK "https://dpw.lacounty.gov/epd/swims/ShowDoc.aspx?id=6530&hp=yes&type=PDF"]. p. 71.

78 Republic Services, Inc., 2018. Sunshine Canyon Landfill: About. Available: [HYPERLINK "https://sunshinecanyonlandfill.com/about/"]. Accessed November 28, 2018.

79 CalRecycle, 2018. SWIS Facility Detail: Sunshine Canyon Landfill. Available: [HYPERLINK "https://www2.calrecycle.ca.gov/swfacilities/Directory/19-AA-2000"]. Accessed November 28, 2018.

80 County of Los Angeles, 2017. Countywide Integrated Waste Management Plan 2016 Annual Report. Available: [HYPERLINK "https://dpw.lacounty.gov/epd/swims/ShowDoc.aspx?id=6530&hp=yes&type=PDF"]. Appendix E-2, Table 1, Remaining Permitted Disposal Capacity of Existing Solid Waste Disposal Facilities in Los Angeles County.

The Adjusted Baseline's solid waste contribution is estimated to reduce the capacity of the Sunshine Canyon Landfill to approximately 62,082,860 tons per year of solid waste.

TABLE 3.15-18
HPSP SOLID WASTE GENERATION ESTIMATES

Proposed Use	Unit Contribution	Solid Waste Generation Factor	Solid Waste Generation (tons/yr)
Stadium[a]	2,700,000[b]	1.29 tons/1,000 sf/year	3,483
Performance Venue[a]	153,913[c]	1.29 tons/1,000 sf/year	199
Office[d]	466,000 sf	6 lbs/1,000 sf/day	510
Retail/Restaurant[d]	518,077 sf	2.5 lbs/100 sf/day	2,364
Residential[d]	314 du	4 lbs/du/day	229
Total	—	—	**6,785**

NOTES:
yr = year; sf = square feet; du = dwelling unit
a Solid waste generation from the Sacramento Entertainment and Sports Center EIR
b To find the square footage of a 70,000-seat NFL Stadium, comparable stadiums were researched. The Mercedes Benz Stadium in Atlanta, Georgia has a capacity of 71,000 seats and is 2,000,000 square feet.
c To find the square footage of a 6,000 seat performance venue, comparable performance venues were researched. The Novo by Microsoft in Los Angeles, California has a capacity of 2,300 seats and is 59,000 square feet. 59,000 square feet/2,300 seats = approximately 25 square feet per seat. 6,000 seats X 25 square feet = 153,913 square feet. Source: https://www.discoverlosangeles.com/la-concert-venues-that-double-as-event-space https://www.discoverlosangeles.com/la-concert-venues-that-double-as-event-space.
d Solid waste generation estimates derived from a list of generation rates maintained by CalRecycle. CalRecycle does not provide standard solid waste generation rates by land use.

SOURCE: ESA, 2019. Generation factors are based off of the Sacramento Entertainment and Sports Center EIR, 2014 and CalRecycle.

3.15.15 Regulatory Setting

Federal

There are no federal regulations, plans, or policies applicable to solid waste that relate to the Proposed Project.

State

California Integrated Waste Management Act

The California Integrated Waste Management Act of 1989 (AB 939) was enacted to reduce, recycle, and reuse solid waste generated in the state to the maximum extent feasible. Specifically, AB 939 requires city and county jurisdictions to identify an implementation schedule to divert 50 percent of the total waste stream from landfill disposal by the year 2000. AB 939 also requires each city and county to promote source reduction, recycling, and safe disposal or transformation. Cities and counties are required to maintain the 50 percent diversion specified by AB 939 past the year 2000. AB 939 also requires each city and county to promote source reduction, recycling, and

safe disposal or transformation. The City of Inglewood's City-wide diversion rate per AB 939 was 62 percent in 2010.[81]

In 2007, SB 1016 was passed, changing the way the State measured waste diversion. SB 1016 builds on AB 939 compliance requirements by implementing a simplified measure of jurisdictions' performance. SB 1016 accomplishes this by changing to a disposal-based indicator (a per capita disposal rate). The AB 939 50 percent solid waste disposal reduction requirement is now measured in terms of per-capita disposal expressed as pounds of waste generated per person per day, or pounds per employee per day. The focus is on program implementation, actual recycling, and other diversion programs instead of estimated numbers.

The State of California took another step to increase diversion in 2011, when the governor signed AB 341, increasing the current state goal from 50 percent diversion to 75 percent recycling by 2020. AB 341 created the Mandatory Commercial Recycling law, which requires that all businesses that generate four or more cubic yards of waste each week and all multi-family communities with five or more units must arrange for recycling service.

In 2014, Governor Brown signed AB 1826 into law, requiring businesses to recycle their organic waste, effective April 1, 2016, depending on the amount of waste generated per week. This law also requires that local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. This law phases in the mandatory recycling of commercial organics over time, as follows:

- April 1, 2016: Businesses that generate eight cubic yards of organic waste per week shall arrange for organic waste recycling services.
- January 1, 2017: Businesses that generate four cubic yards of organic waste per week shall arrange for organic waste recycling services.
- January 1, 2019: Businesses that generate four cubic yards or more of commercial solid waste per week shall arrange for organic waste recycling services.
- Year 2020 Assessment: If CalRecycle determines that the statewide disposal of organic waste in 2020 has not been reduced by 50 percent of the level of disposal during 2014, the organic recycling requirements on businesses will expand to cover businesses that generate two cubic yards or more of commercial solid waste per week. Additionally, certain exemptions may no longer be available if this target is not met.

[81] City of Inglewood, 2012. Special Meeting of Special Council Evaluation of Solid Waste and Recycling Services Proposals. Available: [HYPERLINK "http://v1.cityofinglewood.org/pdfs/wastemanagement/hfh.pdf"]. Accessed December 4, 2018.

Construction and Demolition Waste Materials Diversion Requirements

SB 1374 was signed into law in 2002 to assist jurisdictions with diverting their construction and demolition (C&D) waste material. The legislation requires that the CIWMB (now CalRecycle) complete five items in regards to the diversion of construction and demolition waste: (1) adopt a model ordinance for diverting 50 percent to 75 percent of all construction and demolition debris from landfills; (2) consult with multiple regulators and waste entities (e.g., California State Association of Counties, private and public waste services, building construction materials industry, etc.) during the development of the model ordinance; (3) compile a report on programs that can be implemented to increase diversion of C&D debris; (4) post a report on the agency's website for general contractors on methods that contractors can use to increase diversion of C&D waste materials; and (5) post on the agency's website a report for local governments with suggestions on programs to increase diversion of C&D waste materials. Under SB 1374, jurisdictions must also include in their annual AB 939 report a summary of the progress made in diverting construction and demolition waste. The model ordinance was adopted by CalRecycle on March 16, 2004.[82]

California Green Building Standards Code

In 2007 the California Building Standards Commission (CBSC) was directed to develop green buildings standards in an effort to meet the goals of California's landmark AB 32 initiative, which established a comprehensive program of cost-effective reductions of greenhouse gases to 1990 levels by 2020. The result, the California Green Building Standards Code (CALGreen Code), CCR Title 24, is the first-in-the-nation mandatory green building standards code. The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings. Material conservation and resource efficiency is one of the categories of sustainable construction. Measures include means of achieving material conservation and resource efficiency through reuse of existing building stock and materials; use of recycled, regional, rapidly renewable and certified wood materials; and employment techniques to reduce pollution through recycling of materials.

Local

City of Inglewood General Plan

The City of Inglewood General Plan Conservation Element, adopted on October 21, 1997, addresses the conservation, development and utilization of natural resources within the City. Chapter IV of the Conservation Element addresses the City's solid waste management. The Conservation Element notes that the City's goal of a 25 percent reduction of solid waste between 1990 and 1995 was met. While the Conservation Element discusses the City's concerns related to landfill capacities and the City's programs to minimize solid waste generation, no specific goals or policies relevant to the Proposed Project are included in the Conservation Element.

[82] CalRecycle, Senate Bill 1374 (2002), August 24, 2018, [HYPERLINK "https://www.calrecycle.ca.gov/lgcentral/library/canddmodel/instruction/sb1374"].

3.15.16 Analysis, Impacts and Mitigation

Significance Criteria

The City has not adopted thresholds of significance for the analysis of impacts to solid waste generation and landfill capacity. The following thresholds of significance are consistent with CEQA Guidelines Appendix G. A significant impact would occur if the Proposed Project would:

1. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or
2. Conflict with federal, state, and local management and reduction statutes and regulations related to solid waste.

Methodology and Assumptions

The following impact analysis evaluates the potential for the Proposed Project to result in changes to existing solid waste generation and landfill capacity. Potential changes in solid waste generation are evaluated using waste generation factors shown in **Table 3.15-19**. It is assumed that the Proposed Project would comply with all applicable laws, regulations, design standards, and plans for solid waste reduction and recovery.

TABLE 3.15-19
EXISTING AND PROPOSED SOLID WASTE GENERATION

Proposed Use	Unit Contribution	Solid Waste Generation Factor	Solid Waste Generation (tons/yr)
Existing			
Retail/Commercial	54,098 sf	2.5 lbs/100 sf/day	247
Proposed			
Arena[a]	915,000 sf	1.29 tons/1,000 sf/year	1,180
Office[b]	71,000 sf	6 lbs/1,000 sf/day	78
Practice and Training Facility[b]	85,000 sf	6 lbs/1,000 sf/day	93
Sports Medicine Clinic[b]	25,000 sf	6 lbs/1,000 sf/day	27
Retail/Commercial[b]	48,000 sf	2.5 lbs/100 sf/day	219
Community Space[b]	15,000 sf	2.5 lbs/100 sf/day	68
Hotel[b]	150 rooms	2 lbs/room/day	55
Total			**1,721**
Net Increase			**1,474**

NOTES:
yr = year; sf = square feet
a Solid waste generation estimate for the arena uses based on the Sacramento Entertainment and Sports Center EIR.
b Solid waste generation estimates derived from a list of generation rates maintained by CalRecycle. CalRecycle does not provide standard solid waste generation rates by land use.

SOURCE: ESA, 2019. Generation factors are based off of the Sacramento Entertainment and Sports Center EIR, 2014 and estimated solid waste generation rates provided by CalRecycle.

Impacts and Mitigation Measures

Impact 3.15-11: Construction and operation of the Proposed Project could generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, and could otherwise impair the attainment of solid waste reduction goals. (Less than Significant)

Construction

As previously discussed, the City of Inglewood is served by CDS, which transfers solid waste to the Sunshine Canyon Landfill in Sylmar, California. The Sunshine Canyon Landfill currently receives an average of 3 million tons per year of solid waste, and is permitted to receive a maximum of 4.4 million tons per year of solid waste.[83,84] The landfill has approximately 62,082,860 tons of remaining capacity. Based on the landfill's throughput and availability of land, the landfill has a cease operation date of 2037. Construction of the Proposed Project would include demolition of existing buildings on the Project Site, and would result in the generation of various construction waste including scrap lumber, scrap finishing materials, various scrap metals, and other recyclable and non-recyclable construction related wastes. Recyclable construction materials, including concrete, metals, wood, and various other recyclable materials would be diverted to recycling facilities.

Table 3.15-20 presents the solid waste that would be generated by the demolition of existing uses at the Project Site, which would total approximately 4,274 tons. This construction debris would be approximately 0.1 percent of the average waste that enters the landfill per year. The landfill has approximately 62,082,860 tons of remaining capacity. After demolition of existing uses, the landfill would still have approximately 62,078,586 tons of remaining capacity.

TABLE 3.15-20
SOLID WASTE GENERATION DURING DEMOLITION OF EXISTING USES

Land Use to be Demolished	Unit Contribution	Solid Waste Generation Factor	Solid Waste Generation (tons)
Restaurant (Non-residential)	1,118 sf	158 lbs/sf	88
Motel (Non-residential)	16,806 sf	158 lbs/sf	1,328
Food Warehouse (Non-residential)	28,809 sf	158 lbs/sf	2,276
Commercial Vacant (Non-residential)	6,231 sf	158 lbs/sf	492
Catering (Non-residential)	1,134 sf	158 lbs/sf	90
Total	**54,098 sf**	**-**	**4,274**

NOTE:
sf = square feet

SOURCE: ESA, 2019. Generation factors based off of the US Environmental Protection Agency, 2003. Estimating 2003 Building-Related Construction and Demolition Materials Amounts.

83 Republic Services, Inc., 2018. Sunshine Canyon Landfill: About. Available: [HYPERLINK "https://sunshinecanyonlandfill.com/about/"]. Accessed November 28, 2018.

84 CalRecycle, 2018. SWIS Facility Detail: Sunshine Canyon Landfill. Available: [HYPERLINK "https://www2.calrecycle.ca.gov/swfacilities/Directory/19-AA-2000"]. Accessed November 28, 2018.

The above estimates are conservative as the Proposed Project would be required to comply with State requirements to divert a minimum of 75 percent of construction wastes to a certified recycling processor, pursuant to AB 1374. In addition, the Proposed Project would meet or exceed current uniform codes designed to achieve a LEED Gold rating. The Proposed Project would apply for LEED certification of the proposed buildings and accompanying development in the Building Design + Construction (BD+C) category, and would adopt a LEED approach in order to capture site-wide strategies such as those related to solid waste management. The Proposed Project would commit to recycling construction wastes in excess of the minimum requirements of the State. Adhering to LEED Gold standards would minimize the total volume of demolition and construction waste that would be landfilled, but would not avoid landfilling entirely.

In consideration of the large volume of landfill capacity available at Sunshine Canyon Landfill, sufficient landfill capacity would be available to serve the Proposed Project during construction. Therefore, the Proposed Project would not require new or expanded solid waste management or disposal facilities. Thus, as there is sufficient landfill capacity to serve the Proposed Project's solid waste disposal needs during construction, impacts would be **less than significant**.

Operation

Operation of the Proposed Project would result in the generation of waste in accordance with the proposed increase in use of intensity at the Project Site. Proposed operational wastes would include retail/commercial, office, hotel, and entertainment and sports center-related wastes. As shown in Table 3.15-19, the existing uses at the Project Site generate 247 tons per year of solid waste. The Proposed Project would generate approximately 1,721 tons per year of solid waste, a net increase of 1,474 tons per year of solid waste over baseline conditions.

Waste generated by the Proposed Project would be removed from the site by CDS and recycled in accordance with City requirements, with the remaining waste landfilled at Sunshine Canyon Landfill. As noted previously, this landfill currently accepts an average of 3 million tons per year of solid waste, and is permitted to receive a maximum of 4.4 million tons per year of solid waste. The landfill has approximately 62,082,860 tons of remaining capacity. The net increase in Project-related wastes would represent less than 0.1 percent of the remaining capacity for this landfill, with 62,081,386 additional tons still available before the landfill reaches its remaining capacity.

The lifespan of a landfill is determined by land availability and its topography, refuse-to-cover ratios, settlement rates, and its planned throughput.[85] Even with the Proposed Project, there would still be an additional 62,081,386 tons of remaining capacity. Thus, the Proposed Project is within planned waste acceptance growth for the landfill, and would not change the lifespan of the landfill, which would continue to have availability until 2037.

Because sufficient landfill capacity would be available to serve the Proposed Project, the Proposed Project would not require new or expanded solid waste management or disposal

[85] CalRecycle, 2018. Methodology for Determining Remaining Landfill Capacity. Available: [HYPERLINK "https://www.calrecycle.ca.gov/lea/advisories/45"]. Accessed January 14, 2019.

facilities. Additionally, implementation of typical recycling rates and state diversion requirements would result in a portion of the total waste stream being diverted to recycling, consistent with the California Integrated Waste Management Act's goal of 75 percent recycling by 2020. This would further minimize impacts to landfill capacity. Therefore, because there is sufficient landfill capacity to serve the Proposed Project's solid waste disposal needs during operation, this impact would be **less than significant**.

Mitigation Measures

None required.

Impact 3.15-12: Construction and operation of the Proposed Project could conflict with federal, State, and local management and reduction statutes and regulations related to management and reduction of solid waste. (Less than Significant)

The Proposed Project would comply with federal, state, and local statutes and regulations related to solid waste. The City would be required to maintain the 75 percent diversion rate required by the State pursuant to AB 341. In addition, the Proposed Project would meet or exceed current uniform codes designed to achieve a LEED Gold rating. The Proposed Project would apply for LEED certification of the proposed buildings and accompanying development in the BD+C category, and would adopt a LEED approach in order to capture site-wide strategies such as those related to solid waste management. The Proposed Project would commit to recycling construction wastes in excess of the minimum requirements of the State.

Adhering to LEED Gold standards would minimize the total volume of demolition and construction waste that would be landfilled. In addition, the Proposed Project would contract with CDS for all bin removal activities. Compliance with construction and operational debris removal and recycling requirements would occur with the City's Environmental Services Department and CDS' Sunshine Canyon Landfill. Therefore, as the Proposed Project would not conflict with federal, state, and local statues related to solid waste, and would meet LEED Gold requirements, impacts would be **less than significant**.

Mitigation Measures

None required.

Cumulative Impacts

The geographic scope of analysis for cumulative impacts related to solid waste and landfill capacity is the Sunshine Canyon Landfill service area.

Impact 3.15-13: Construction and operation of the Proposed Project, in conjunction with other cumulative development, could cumulatively generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, and could otherwise cumulatively impair the attainment of solid waste reduction goal. (Less than Significant)

Cumulative projects (listed in Section 3.0, Introduction to the Analysis, Table 3.0-2, Cumulative Projects List) would increase solid waste generation. Of the cumulative projects listed in Table 3.0-2, those located in the Inglewood, El Segundo, Hawthorne, Culver City, Gardena, and the City of Los Angeles would have waste delivered to the Sunshine Canyon Landfill.[86] While solid waste from cumulative projects within the County of Los Angeles to certain landfills is variable by location, it was conservatively assumed that solid waste from the cumulative projects within the jurisdiction of the County of Los Angeles also would be delivered to the Sunshine Canyon Landfill. Table 3.15-21 shows the solid waste generation that is estimated to be produced by all of the cumulative projects listed in Section 3.0, Introduction to the Analysis, based on land use. A total of 29,908 tons per year of solid waste would be generated by these cumulative projects.

TABLE 3.15-21
ESTIMATED CUMULATIVE SOLID WASTE GENERATION

Cumulative Project List Number	Land Use	Unit Contribution	Solid Waste Generation Factor	Solid Waste Generation (tons/year)
1	Office	281,209 sf	6 lbs/1,000 sf/day	308
2	Residential	5 du	4 lbs/du/day	4
	Retail	3,414 sf	2.5 lbs/100 sf/day	16
	Commercial	2,340 sf	2.5 lbs/100 sf/day	11
3	Service Bays (Industrial)	14,668 sf	5 lbs/1,000 sf/day	13
	Parts and Service (Commercial)	12,900 sf	2.5 lbs/100 sf/day	59
4	Commercial	16,000 sf	2.5 lbs/100 sf/day	73
	Apartments	775 du	4 lbs/du/day	556
	Hotel (Office)	-60,000 sf	6 lbs/1,000 sf/day	-66
5	Hotel	190 rooms	2 lbs/room/day	69
6	Office	1,751,921 sf	6 lbs/1,000 sf/day	1,918
	Warehouse	73,577 sf	5 lbs/1,000 sf/day	67
	Retail	148,960 sf	2.5 lbs/100 sf/day	680
7	Hotel	152 rooms	2 lbs/room/day	55
8	Warehouse	-3,050 sf	5 lbs/1,000 sf/day	-3
	Office	3,050 sf	6 lbs/1,000 sf/day	3
9	Office	73,000 sf	6 lbs/1,000 sf/day	80
10	Office	52,000 sf	6 lbs/1,000 sf/day	57
	Athletic Training Facility (Office)	68,000 sf	6 lbs/1,000 sf/day	75
11	School	1,200 students	1 lb/student/day	219
	School (Office)	-90,000 sf	6 lbs/1,000 sf/day	-99

[86] Sunshine Canyon Landfill, 2019. Communication with Chris Coyle RE: Sunshine Canyon Service Area. January 4, 2019.

TABLE 3.15-21
ESTIMATED CUMULATIVE SOLID WASTE GENERATION

Cumulative Project List Number	Land Use	Unit Contribution	Solid Waste Generation Factor	Solid Waste Generation (tons/year)
12	Hotel	180 rooms	2 lbs/room/day	66
	Office	63,550 sf	6 lbs/1,000 sf/day	70
13	Residential	4 du	4 lbs/du/day	3
14	Office	96,858 sf	6 lbs/1,000 sf/day	106
15	Office	611,545 sf	6 lbs/1,000 sf/day	670
	Retail	13,660 sf	2.5 lbs/100 sf/day	62
16	Office	93,569 sf	6 lbs/1,000 sf/day	102
17	Office	106,000 sf	6 lbs/1,000 sf/day	116
	Warehouse	117,000 sf	5 lbs/1,000 sf/day	107
18	Hotel	167 room	2 lbs/room/day	61
19	Data Center (Office)	180,422 sf	6 lbs/1,000 sf/day	198
20	Residential	525 du	4 lbs/du/day	383
	Office	-835,000 sf	6 lbs/1,000 sf/day	-914
21	Residential	8 du	4 lbs/du/day	6
22	Retail	67,000 sf	2.5 lbs/100 sf/day	306
23	Office	300,000 sf	6 lbs/1,000 sf/day	329
24	Hotel	150 rooms	2 lbs/room/day	55
25	Hotel Expansion (Office)	6,952 sf	6 lbs/1,000 sf/day	8
26	Warehouse	20,819 sf	5 lbs/1,000 sf/day	19
	Office	139,558 sf	6 lbs/1,000 sf/day	153
	Manufacturing	14,025 sf	5 lbs/1,000 sf/day	13
27	Retail	3,714 sf	2.5 lbs/100 sf/day	17
28	Office	20,955 sf	6 lbs/1,000 sf/day	23
29	Ice Rink (Warehouse)	17,315 sf	5 lbs/1,000 sf/day	16
30	Residential	40 du	4 lbs/du/day	29
31	Industrial	100,438 sf	5 lbs/1,000 sf/day	92
32	Residential	20 du	4 lbs/du/day	15
33	Retail	3,140 sf	2.5 lbs/100 sf/day	14
34	Residential	610 du	4 lbs/du/day	445
35	Residential	116 du	4 lbs/du/day	85
36	Residential	171 du	4 lbs/du/day	125
	Office	32,500 sf	6 lbs/1,000 sf/day	36
37	Residential	230 du	4 lbs/du/day	168
	Retail	3,700 sf	2.5 lbs/100 sf/day	17
38	Residential	6 du	4 lbs/du/day	4
39	Hotel	350 rooms	2 lbs/room/day	128
40	Hotel	119 rooms	2 lbs/room/day	43
41	Residential	241 du	4 lbs/du/day	176

TABLE 3.15-21
ESTIMATED CUMULATIVE SOLID WASTE GENERATION

Cumulative Project List Number	Land Use	Unit Contribution	Solid Waste Generation Factor	Solid Waste Generation (tons/year)
42	Residential	4 du	4 lbs/du/day	3
43	Residential	4 du	4 lbs/du/day	3
44	Residential	12 du	4 lbs/du/day	9
45	Residential	38 du	4 lbs/du/day	28
46	Residential	10 du	4 lbs/du/day	7
47	Residential	3 du	4 lbs/du/day	2
48	Residential	12 du	4 lbs/du/day	9
49	Residential	5 du	4 lbs/du/day	4
50	Living Facility (Residential)	18 beds	4 lbs/du/day	13
51	Residential	18 du	4 lbs/du/day	13
52	Residential	4 du	4 lbs/du/day	3
53	Hotel	120 rooms	2 lbs/room/day	44
54	Residential	3 du	4 lbs/du/day	2
55	Residential	7 du	4 lbs/du/day	5
56	Residential	12 du	4 lbs/du/day	9
57	Retail	2,542 sf	2.5 lbs/100 sf/day	12
58	Residential	40 du	4 lbs/du/day	29
59	Residential	116 du	4 lbs/du/day	85
60	Commercial	1,312 sf	2.5 lbs/100 sf/day	6
	Commercial	-1,210 sf	2.5 lbs/100 sf/day	-6
61	Retail	40,000 sf	2.5 lbs/100 sf/day	183
62	Residential	20 du	4 lbs/du/day	15
63	Residential	310 du	4 lbs/du/day	226
64	Self-Storage (Warehouse)	81,613 sf	5 lbs/1,000 sf/day	74
65	Residential	3 du	4 lbs/du/day	2
66	Living Facility (Residential)	18 beds	4 lbs/du/day	13
67	Residential	2,186 du	4 lbs/du/day	1,596
	Retail	371,923 sf	2.5 lbs/100 sf/day	1,697
	Office	3,567,314 sf	6 lbs/1,000 sf/day	3,906
	Hotel	300 rooms	2 lbs/room/day	110
68	Residential	243 du	4 lbs/du/day	177
	Retail	40,000 sf	2.5 lbs/100 sf/day	183
69	Philharmonic Association (Commercial)	25,500 sf	6 lbs/1,000 sf/day	116
70	Residential	5 du	4 lbs/du/day	4
71	Self-Storage (Warehouse)	159,498 sf	5 lbs/1,000 sf/day	146
72	Car Rental (Office)	173,804 sf	6 lbs/1,000 sf/day	190
73	Hotel	4 rooms	2 lbs/room/day	1

TABLE 3.15-21
ESTIMATED CUMULATIVE SOLID WASTE GENERATION

Cumulative Project List Number	Land Use	Unit Contribution	Solid Waste Generation Factor	Solid Waste Generation (tons/year)
75	School	50 students	1 lb/student/day	9
76	Hotel	178 rooms	2 lbs/room/day	65
77	Bus Facility (Office)	1,006,236 sf	6 lbs/1,000 sf/day	1,102
78	Residential	140 du	4 lbs/du/day	102
	Retail	2,600 sf	2.5 lbs/100 sf/day	12
79	Residential	137 du	4 lbs/du/day	100
80	Retail	3,399 sf	2.5 lbs/100 sf/day	16
81	Residential	600 du	4 lbs/du/day	438
83	Residential	108 du	4 lbs/du/day	79
	Retail	4,000 sf	2.5 lbs/100 sf/day	18
84	Industrial	225,000 sf	5 lbs/1,000 sf/day	205
85	Office	68,250 sf	6 lbs/1,000 sf/day	75
86	School	525 students	1 lb/student/day	96
87	School	616 students	1 lb/student/day	112
88	Retail	740,000 sf	2.5 lbs/100 sf/day	3,376
89	Residential	49 du	4 lbs/du/day	36
90	Residential	142 du	4 lbs/du/day	104
	Residential	57 du	4 lbs/du/day	42
	Retail	7,500 sf	2.5 lbs/100 sf/day	34
	Bank (Office)	1,500 sf	6 lbs/1,000 sf/day	2
	Office	15,400 sf	6 lbs/1,000 sf/day	17
91	Convenience Store (Retail)	1,835 sf	2.5 lbs/100 sf/day	8
93	Residential	176 du	4 lbs/du/day	128
94	Fast Food Restaurant with Drive-Through (Commercial)	4,642 sf	2.5 lbs/100 sf/day	21
95	Residential	180 du	4 lbs/du/day	131
96	Grocery Store (Commercial)	22,590 sf	2.5 lbs/100 sf/day	103
97	Residential	281 du	4 lbs/du/day	205
	Retail	26,500 sf	2.5 lbs/100 sf/day	121
	Residential	112 du	4 lbs/du/day	82
98	Residential	74 du	4 lbs/du/day	54
99	Office	1,196 sf	6 lbs/1,000 sf/day	1
100	Residential	74 du	4 lbs/du/day	54
101	Hotel	128 rooms	2 lbs/room/day	47
102	Commercial	4,963 sf	2.5 lbs/100 sf/day	23
103	Residential	32 du	4 lbs/du/day	23
104	Hotel	44 rooms	2 lbs/room/day	16
105	Residential	39 du	4 lbs/du/day	28
106	Commercial	4,500 sf	2.5 lbs/100 sf/day	21

TABLE 3.15-21
ESTIMATED CUMULATIVE SOLID WASTE GENERATION

Cumulative Project List Number	Land Use	Unit Contribution	Solid Waste Generation Factor	Solid Waste Generation (tons/year)
107	Residential	57 du	4 lbs/du/day	42
108	Residential	12 du	4 lbs/du/day	9
109	Residential	10 du	4 lbs/du/day	7
110	Residential	11 du	4 lbs/du/day	8
111	Residential	36 du	4 lbs/du/day	26
112	Residential	32 du	4 lbs/du/day	23
113	Residential	9 du	4 lbs/du/day	7
114	Residential	4 du	4 lbs/du/day	3
115	Residential	6 du	4 lbs/du/day	4
116	Residential	19 du	4 lbs/du/day	14
117	Residential	17 du	4 lbs/du/day	12
118	Commercial	2,858 sf	2.5 lbs/100 sf/day	13
119	Commercial	1,640 sf	2.5 lbs/100 sf/day	7
120	Convenience Store (Retail)	1,060 sf	2.5 lbs/100 sf/day	5
121	Residential	88 du	4 lbs/du/day	64
122	Residential	42 du	4 lbs/du/day	31
123	Residential	2 du	4 lbs/du/day	1
124	Residential	9 du	4 lbs/du/day	7
125	Convenience Store (Retail)	2,900 sf	2.5 lbs/100 sf/day	13
126	Church (Commercial)	1,324 sf	2.5 lbs/100 sf/day	6
127	Commercial	250 sf	2.5 lbs/100 sf/day	1
	Residential	1 du	4 lbs/du/day	1
128	Residential	8 du	4 lbs/du/day	6
129	Office	612,500 sf	6 lbs/1,000 sf/day	671
	Retail	270,000 sf	2.5 lbs/100 sf/day	1,232
	Research and Development (Office)	612,500 sf	6 lbs/1,000 sf/day	671
130	Office	300,000 sf	6 lbs/1,000 sf/day	329
	Hotel	400 rooms	2 lbs/room/day	146
	Retail	200,000 sf	2.5 lbs/100 sf/day	913
	Conference Center (Office)	100,000 sf	6 lbs/1,000 sf/day	110
131	Theater*	1,000 seats	0.042 tons/seat/yr	42
	Education Center (Office)	12,000 sf	6 lbs/1,000 sf/day	14
132	Residential	127 du	4 lbs/du/day	93
133	Office	50,000 sf	6 lbs/1,000 sf/day	55
	Residential	200 du	4 lbs/du/day	146
	School	3,600 students	1 lb/student/day	657
134	Residential	130 du	4 lbs/du/day	95
135	School	500 students	1 lb/student/day	91

TABLE 3.15-21
ESTIMATED CUMULATIVE SOLID WASTE GENERATION

Cumulative Project List Number	Land Use	Unit Contribution	Solid Waste Generation Factor	Solid Waste Generation (tons/year)
136	Residential	111 du	4 lbs/du/day	81
137	Office	64,000 sf	6 lbs/1,000 sf/day	70
	Retail	4,000 sf	2.5 lbs/100 sf/day	18
	Retail	2,000 sf	2.5 lbs/100 sf/day	9
	Retail	2,000 sf	2.5 lbs/100 sf/day	9
138	Office	123,572 sf	6 lbs/1,000 sf/day	135
	Manufacturing	64,206 sf	5 lbs/1,000 sf/day	59
	Retail	2,000 sf	2.5 lbs/100 sf/day	9
139	Commercial	6,500 sf	2.5 lbs/100 sf/day	30
	Commercial	2,328 sf	2.5 lbs/100 sf/day	11
140	Residential	16 beds	4 lbs/du/day	12
141	Community Center (Office)	1,000 sf	6 lbs/1,000 sf/day	1
	Amphitheater and Lawn*	1,100 seats	0.042 tons/seat/yr	46
	Music center (Office)	1,000 sf	6 lbs/1,000 sf/day	1
	Nature Lab (Office)	1,000 sf	6 lbs/1,000 sf/day	1
	Museum – Gallery (Office)	1,000 sf	6 lbs/1,000 sf/day	1
	Multi-Purpose Stadium*	3,000 seats	0.042 tons/seat/yr	126
142	Residential	100 du	4 lbs/du/day	73
143	Residential	79 du	4 lbs/du/day	58
144	Residential	61 du	4 lbs/du/day	45
145	Residential	85 du	4 lbs/du/day	62
Total	-			**29,908**

NOTES:
sf = square feet; lbs = pounds; du = dwelling unit
* These uses use the solid waste generation from the Qualcomm Stadium Reconstruction EIR, which uses a generation rate based on number of seats.

SOURCE: ESA, 2019. Generation factors derived from a list of generation rates maintained by CalRecycle. CalRecycle does not provide standard solid waste generation rates by land use.

As discussed previously, the Sunshine Canyon Landfill currently accepts an average of 3 million tons per year of solid waste, and is permitted to receive a maximum of 4.4 million tons per year of solid waste. The landfill has approximately 62,082,860 tons of remaining capacity. The solid waste generated by the combination of the Proposed Project plus other cumulative projects would represent less than 1 percent of the average throughput for this landfill. After acceptance of the solid waste from the Proposed Project and other cumulative projects, there would still be an additional 62,052,952 tons of remaining capacity. Thus, the Proposed Project and cumulative projects are within planned waste acceptance growth for the landfill, and would not materially reduce the planned lifespan of the landfill, which would continue to have availability until 2037.

Similar to the Proposed Project, cumulative projects would be required to comply with State requirements to divert a minimum of 75 percent of waste to a certified recycling processor to ensure solid waste generation is minimal. Existing capacity at the Sunshine Canyon Landfill exists to serve both the Proposed Project and cumulative projects as well as existing developments within the County of Los Angeles.

Based on the above considerations, the Proposed Project, in conjunction with other cumulative projects within the Sunshine Canyon Landfill service area, would not generate solid waste that would be in excess of state or local standards and would not exceed the capacity of local infrastructure. The Proposed Project, in conjunction with other cumulative development, would not otherwise impair the attainment of solid waste reduction goal. Therefore, the cumulative impact would be **less than significant**.

Mitigation Measures

None required.

Impact 3.15-14: Construction and operation of the Proposed Project, in conjunction with other cumulative development, could conflict with federal, State, and local statues and regulations related to management and reduction of solid waste. (Less than Significant)

As detailed above, the City is required to maintain the 50 percent diversion rate required by the State through the California Solid Waste Management Act. Similar to the Proposed Project, cumulative projects would contract with CDS for bin removal activities. Compliance with construction and operational debris removal and recycling requirements would occur with the City's Environmental Services Department and CDS' Sunshine Canyon Landfill. As previously detailed, the Proposed Project would also adhere to the LEED Gold standards, committing to recycling construction waste in excess of the minimum requirements of the State. Based on the above considerations, the Proposed Project, in conjunction with cumulative development within the Project vicinity, implementation of the Proposed Project would not conflict with federal, state, and local statues and regulations related to management and reduction of solid waste. Therefore, the cumulative impact would be **less than significant**.

Mitigation Measures

None required.

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