

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

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 orders⁷ 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 5 year *space* 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

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.

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 surplus¹⁹ 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*.

water to be injected into the barrier with a 50 percent blend with potable water over a 60-month running average. Plans are underway to increase the permitted amount to 100 percent by 2018.

time passed?

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.

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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 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."

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.

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.

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

²⁹ Metropolitan Water District of Southern California, F.E Weymouth Treatment Plan, <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.

- (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

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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

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.

Water Conservation

Conservation and water use efficiency are the foundation of the IRP. Metropolitan and its member agencies *Q have?* 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 (LAA); Local surface water sources; and, other identified resources.

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

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

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

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

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