# Appendix L-1

Water Supply Assessment



# Water Supply Assessment for the Imperial Avalon Mixed-Use Development Project

Dominguez District
California Water Service

6 October 2021 EKI C10063.00



# **Water Supply Assessment**

Imperial Avalon Mixed-Use Development Project Dominguez District, California Water Service

# TABLE OF CONTENTS

| 1 | INTF  | RODUCTION   | 4  |
|---|---|---|--|
| 2 | <b>GEN</b> 2.1 2.2 2.3  | Applicability of Senate Bill 610 to the Project   | 9<br>9   |
| 3 | PRO   | JECT DESCRIPTION  | 11   |
| 4 | PRO<br>4.1<br>4.2<br>4.3<br>4.4<br>4.5<br>4.6                       | Residential Water Use   | . 13<br>. 14<br>. 14<br>. 15                                 |
| 5 | <b>CAL</b> 5.1 5.2 5.3  | WATER DOMINGUEZ DISTRICT WATER DEMAND  Current and Historical Water Demand Within the Dominguez District Service Area  Planned Development Projects within the Dominguez District  Water Demand Projections | . 19<br>. 19   |
| 6 | 6.1<br>6.2<br>6.3<br>6.3.2<br>6.3.3<br>6.3.4<br>6.3.5<br>6.4<br>6.5 | Basin Status  | . 21<br>. 22<br>. 23<br>. 24<br>. 25<br>. 26<br>. 27<br>. 27 |
| 7 | COM   | 1PARISON OF SUPPLY AND DEMAND   | 36   |
| 8 | CON   | CLUSIONS  | 38   |
| a | DECI  | FRENCES   | 30   |



# **Water Supply Assessment**

Imperial Avalon Mixed-Use Development Project Dominguez District, California Water Service

# **TABLE OF CONTENTS (CONTINUED)**

| RES |
|-----|
|     |

| Figure 1 | Dominguez District Service Area and Project Location |
|----------|--|
| Figure 2 | Project Location                                     |
| Figure 3 | Proposed Project Site Plan                           |
| Figure 4 | Regional Setting and Groundwater Subbasins           |

# **TABLES**

| BLES     |   |
|----------|---|
| Table 1  | Project Land Use Assumptions  |
| Table 2  | Estimated Project Water Demand  |
| Table 3  | Estimated Special Landscaping Water Use                                   |
| Table 4  | Historical Water Demand for Dominguez District                            |
| Table 5  | Historical Water Supply for the Dominguez District                        |
| Table 6  | Dominguez District Allowable Pumping Allocations                          |
| Table 7  | Historical and Projected Groundwater Pumping                              |
| Table 8  | Projected Normal Year Water Supply and Demand for the Dominguez District  |
| Table 9  | Comparison of Single Dry Year Water Supply and Demand for the Dominguez   |
|          | District  |
| Table 10 | Comparison of Multiple Dry Year Water Supply and Demand for the Dominguez |
|          | District  |

# **APPENDICES**

Appendix A City of Torrance Water Purchase Agreement



# **CALIFORNIA WATER SERVICE**

Water Resource Sustainability Department 1720 North First Street San Jose, CA 95112

June 2, 2022

Mr. Darren Embry Vice President, Community Development FARING 659 N. Robertson Boulevard West Hollywood, CA 90069

Dear Mr. Embry

This letter serves as the California Water Service Company's (Cal Water) formal approval of the Water Supply Assessment (WSA) for the Imperial Avalon Mixed-Use Development Project located at 21207 South Avalon Boulevard in the City of Carson, California. This approval is contingent on the developer's compliance with any conditions set forth in the WSA by Cal Water.

Authority for this approval is pursuant to Cal Water's "Resolution to Approve Water Supply Assessment and Related Documents for New Developments" dated October 27, 2021 (attached).

Should you have any questions, please contact Michael Hurley at mhurley@calwater.com or (323) 430-0250.

Sincerely,

Ken Jenkins

Chief Water Resource Sustainability Officer

#### CALIFORNIA WATER SERVICE COMPANY

# Resolution to Approve Water Supply Assessment and Related Documents for New Developments

RESOLVED, that this Board of Directors delegates its authority to approve future water supply assessments and related documents, as required under California Water Code Sections 10910 - 10912, and other related Sections, to any Officer of California Water Service Company.

I, MICHELLE MORTENSEN, Secretary of California Water Service Company, a California corporation, do hereby certify that the foregoing is a full, true and correct copy of certain resolutions adopted by the Board of Directors of said Corporation at a regular meeting of said Board duly called and held October 27, 2021, at which a quorum was present, that all Directors present voted in favor of said resolution, and that said resolution have never been annulled or revoked but are still in force and effect.

IN WITNESS WHEREOF, I have hereunto signed by name this 27th day of October 2021.

Michelle Mortensen Corporate Secretary



# 1 INTRODUCTION

Included herein is a Senate Bill 610-compliant water supply assessment (WSA) in support of the proposed Imperial Avalon Mixed-Use Development Project (Proposed Project). The Proposed Project is located within the City of Carson, California (Carson or City; **Figure 1**) and comprises approximately 27.3 acres across five parcels with the address 21207 South Avalon Boulevard (**Figure 2**). Per the project description provided by Imperial Avalon LLC (Project Proponent; Imperial Avalon LLC, 2021b), the Proposed Project includes (**Figure 3**):

- 653 multi-family residential (MFR) dwelling units across three buildings and including two community pool facilities,
- 180 age-restricted independent senior living MFR dwelling units,
- A 380-unit townhouse community (single-family residential [SFR]) including a leasing/club fitness facility and a pool/recreation facility, and
- 10,352 square feet (sq ft) of café/restaurant space, and281,446 sq ft of public access open space including recreation areas, communal amenities, and a large central park.

The Proposed Project is located within the California Water Service (Cal Water) Dominguez District service area (**Figure 1**). Cal Water will be the water service provider for the Proposed Project.

The information provided in this WSA is consistent with California Water Code (CWC or Water Code) §10910-10912 requirements and the California Department of Water Resources' (DWR's) Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001: To Assist Water Suppliers, Cities, and Counties in Integrating Water and Land Use Planning, dated 8 October 2003. The text of specific sub-sections of the Water Code is included as indented and italicized font at the beginning of specific sections of this WSA. The information presented in those respective sections, and the associated tables and figures, respond directly to Water Code requirements.

The purpose of this WSA is to evaluate whether sufficient water supplies are available to meet future demands within the Dominguez District service area, including demands associated with the Proposed Project, during normal, single dry, and multiple dry hydrologic years for a 20-year time horizon. More specifically, this WSA includes:

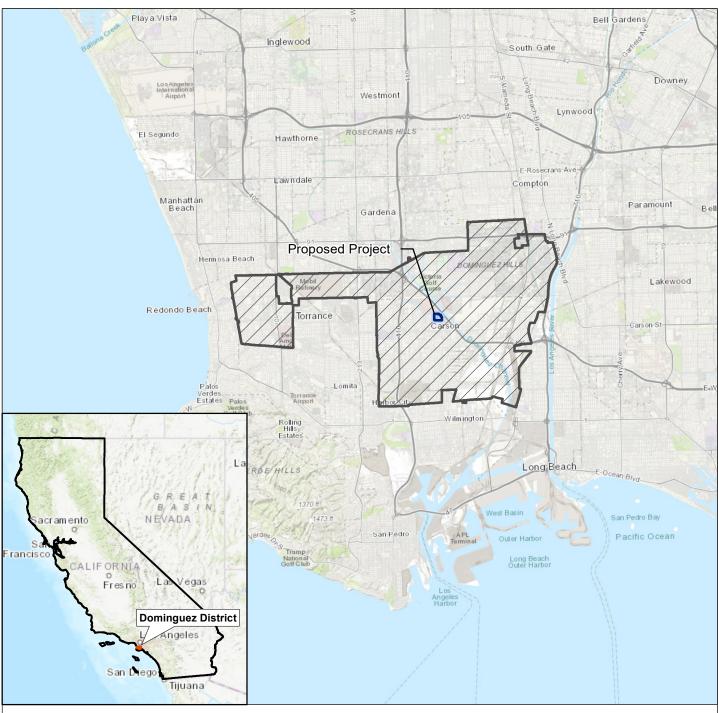
- A summary of the WSA requirements articulated in Water Code §10910-10912 and a description of how they apply to the Proposed Project;
- A description and analysis of the current and projected future water demands of the Proposed Project through the year 2045;
- A description and analysis of the historical, current, and projected future water demands for the Dominguez District service area through the year 2045;
- A description and analysis of the current and projected future water supplies for the Dominguez District service area through the year 2045; and



• A comparison of the water supplies and demands for the Dominguez District service area, including the projected water demands associated with the Proposed Project.

The information contained in this WSA is based on the 2020 Urban Water Management Plan (UWMP) prepared for the Dominguez District, except where augmented by additional relevant water demand and supply reliability and other information from sources including Cal Water, DWR, the United States Geological Survey (USGS), and others.

This WSA concludes that, based on the currently available information, <u>sufficient water supply</u> is available to Cal Water to meet future demands anticipated within the Dominguez District service area, including those associated with the Proposed Project.





Pr

Proposed Project

Service Area Boundary

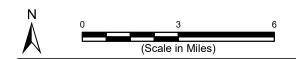
#### <u>Notes</u>

- 1. All locations are approximate.
- 2. Proposed project boundary per Source 2.

# Sources

Path: X:\C10063\Maps\\_.00\2021\08\Fig1\_ProjectLocation\_20210823.mxd

- 1. Basemap provided by ESRI.
- Imperial Avalon LLC, 2021. 21207 South Avalon Boulevard Project Description, received 9 June 2021.



# Dominguez District Service Area and Project Location

Imperial Avalon Mixed-Use
Development Project
Carson, CA
October 2021
C10063.00
Figure 1









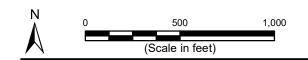
Proposed Project

Path: X:\C10063\Maps\..00\2021\08\Fig2\_ProjectBoundary\_20210823.mxd

- $\frac{\underline{Notes}}{\text{1. All locations are approximate.}}$
- 2. Proposed project boundary per Source 2.

# Sources

- 1. Basemap provided by ESRI.
- 2. Imperial Avalon LLC, 2021. 21207 South Avalon Boulevard Project Description, received 9 June 2021.



# **Project Location**

Imperial Avalon Mixed-Use Development Project Carson, CA October 2021 C10063.00 Figure 2





# Landscape Plan Key

- Improved streetscape with sidewalk and street trees per City of Carson public works standards
- @South Avalon entry drive
- 03 Restaurant patio area
- @Senior living courtyard
- 05 Parallel parking
- 06 Central park
- ©7) Private residential courtyard
- 08 Water feature
- 09 Pedestrian bridge connection
- (10) Greenbelt

Path: X:\C10063\Maps\\_.00\2021\08\Fig3\_ProjectSitePlan\_20210825.mxd

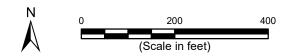
- (1) Townhome pedestrian paseos
- (12) Grace Avenue entry drive

# **Notes**

- 1. All locations are approximate.
- 2. Proposed project site plan per Source 1.

# Sources

1. AO, 2021. Overall Landscape Plan Sheet L.2, Imperial Avalon Mixed Use Agency Submittal, dated 15 March 2021.



# **Proposed Project** Site Plan

Imperial Avalon Mixed-Use Development Project Carson, CA October 2021

> C10063.00 Figure 3





# 2 GENERAL REQUIREMENTS FOR THE PREPARATION OF A WATER SUPPLY ASSESSMENT

The purpose of this section is to outline what types of projects require the preparation of a WSA, who is responsible for its preparation, and the necessary components of a WSA.

### 2.1 Applicability of Senate Bill 610 to the Project

#### Water Code Section 10910

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

#### Water Code Section 10912

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

- (a) "Project" means any of the following:
  - (1) A proposed residential development of more than 500 dwelling units.
  - (2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
  - (3) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
  - (4) A proposed hotel or motel, or both, having more than 500 rooms.
  - (5) A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
  - (6) A mixed-use project that includes one or more of the projects specified in this subdivision.
  - (7) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.
- (b) If a public water system has fewer than 5,000 service connections, then "project" means any proposed residential, business, commercial, hotel or motel, or industrial development that would account for an increase of 10 percent or more in the number of the public water system's existing service connections, or a mixed-use project that would demand an amount of water equivalent to, or greater than, the amount of water required by residential development that would represent an increase of 10 percent or more in the number of the public water system's existing service connections.

The Proposed Project includes over 500 residential dwelling units and therefore satisfies the definition of a "project" requiring a WSA pursuant to Senate Bill (SB) 610 (Water Code §10910(a)).

# 2.2 Responsibility for Preparation of the Water Supply Assessment

#### Water Code Section 10910

(b) The city or county, at the time that it determines whether an environmental impact report, a negative declaration, or a mitigated negative declaration is required for any project subject to the California Environmental Quality Act pursuant to Section 21080.1 of the Public Resources Code, shall identify any water system that is, or may become as a result of supplying water to the project



identified pursuant to this subdivision, a public water system, as defined in Section 10912, that may supply water for the project. If the city or county is not able to identify any public water system that may supply water for the project, the city or county shall prepare the water assessment required by this part after consulting with any entity serving domestic water supplies whose service area includes the project site, the local agency formation commission, and any public water system adjacent to the project site.

The Proposed Project is located within the Dominguez District service area (**Figure 1**) and the water for the Proposed Project will be supplied by Cal Water. Therefore, in accordance with Water Code §10910(b), Cal Water is the entity responsible for developing the WSA for the Proposed Project.

# 2.3 Components of a Water Supply Assessment

#### Water Code Section 10910

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

As listed above in Water Code §10910(c)(4), the primary purpose of a WSA is to evaluate whether sufficient water supply is available to meet future demands within the water supplier's service area, including those associated with the Proposed Project, during normal and dry hydrologic years for a 20-year time horizon. Therefore, the following information is included in this WSA:

- A description and analysis of the current and projected future water demands of the Proposed Project through the year 2045;
- A description and analysis of the historical, current, and projected future water demands for the Dominguez District service area through the year 2045;
- A description and analysis of the current and projected future water supplies for the Dominguez District service area through the year 2045; and
- A comparison of the water supplies and demands for the Dominguez District service area, including the projected water demands and supplies associated with the Proposed Project.



#### 3 PROJECT DESCRIPTION

The Proposed Project is a mixed-use multi-building development located in the City of Carson and includes five parcels with the address 21207 South Avalon Boulevard (see **Figures 2 and 3**). Per the project description provided by the Project Proponent (Imperial Avalon LLC, 2021b), the Proposed Project includes:

- 653 MFR dwelling units across three buildings and including two community pool facilities,
- 180 age-restricted independent senior living MFR dwelling units,
- A 380-unit townhouse community including a leasing/club fitness facility and a pool/recreation facility,
- 10,352 sq ft of café/restaurant space, and
- 281,446 sq ft of public access open space including recreation areas, communal amenities, and a large central park.

Building A will house four stories containing 202 dwelling units with a courtyard and swimming pool. Building B will house four stories containing 206 dwelling units as well as a courtyard, an approximately 1,890 sq ft café, and an approximately 3,200 sq ft restaurant. Building C will house three stories containing 180 age-restricted units and an approximately 5,300 sq ft restaurant (Imperial Avalon LLC, 2021b). Building D will house four stories containing 245 dwelling units and recreational amenity spaces. Lot E will include approximately 380 townhouses including a leasing/club fitness facility and a pool/recreation facility.

For the purposes of this WSA, it is assumed that full buildout of the MFR dwelling units, landscaping, and commercial spaces will be complete by 2025 and the townhouse community will be complete by 2030.<sup>1</sup> The Proposed Project buildout schedule is assumed based on information provided by the Project Proponent, and is shown in **Table 1**, along with additional land use details.

The Proposed Project site is currently developed as the Imperial Avalon Mobile Estates, a mobile home park containing 225 mobile home coaches, along with a recreational vehicle storage yard and a common area including a club house, grass field, recreation building, swimming pool, and guest parking area. Historical water use at the site ranged between 27.4 to 33.8 acre feet per year (AFY) between 2018 and 2020, and averaged 31.1 AFY (Cal Water, 2021a). The Proposed Project is located within the Cal Water Dominguez District service area and potable water service to the Proposed Project will be provided by Cal Water (Figure 2). Although recycled water is available in the region, the Proposed Project is not located proximate to current recycled water mains, and thus recycled water use is not planned as part of this development.

\_

<sup>&</sup>lt;sup>1</sup> It should be noted that the townhouse community is currently projected to be completed in 2027. This WSA evaluates water demand on five-year increments, and thus demands associated with the townhouse community are accounted for in 2030 and beyond.

# Table 1 Project Land Use Assumptions

Imperial Avalon Mixed-Use Development Project, City of Carson, California

|  |                              | Total           | Land Use |         | Cumul   | ative Build | Description |         |  |
|--|------------------------------|-----------------|----------|---------|---------|-------------|-------------|---------|--|
| Project                                  | Land Use                     | Land Use<br>(a) | Units    | 2025    | 2030    | 2035        | 2040        | 2045    |  |
|  | Single-Family<br>Housing (b) | 380             | du       | 0       | 380     | 380         | 380         | 380     | Townhouse community including a leasing/club fitness facility and a pool/recreation facility |
| Imperial Avalon Mixed-Use<br>Development | Multi-Family<br>Housing      | 833             | du       | 833     | 833     | 833         | 833         | 222     | 653 standard MFR units and 180 age-<br>restricted independent senior living units            |
| Development                              | Commercial                   | 10,352          | sf       | 10,352  | 10,352  | 10,352      | 10,352      | 10,352  | Café/restaurant space  |
|  | Open Space (c)               | 281,446         | sf       | 281,446 | 281,446 | 281,446     | 281,446     | 281,446 | Recreation areas, communal amenities, and a large central park                               |

#### Abbreviations:

#### Notes:

- (a) Land use and buildout estimates are based on information per Reference 1.
- (b) It should be noted that the townhouse community is currently projected to be completed in 2027. This WSA evaluates water demand on five-year increments, and thus demands associated with the townhouse community are accounted for in 2030 and beyond.
- (c) For the purposes of this WSA, it is conservatively assumed that all landscaping and special landscaped areas will be completed by 2025.

#### References:

1. 21207 South Avalon Project Description, provided by Cal Water on 9 June 2021.

<sup>&</sup>quot;du" = dwelling units

<sup>&</sup>quot;MFR" = multi-family residential

<sup>&</sup>quot;sf" = square feet



#### 4 PROJECT WATER DEMAND

The City has adopted green building standards and water efficient landscaping ordinances consistent with previous versions of the CalGreen building standards and the California Model Water Efficient Landscape Ordinance (MWELO). As part of state requirements, all new developments must comply with these efficiency standards. As such, the Proposed Project development is expected to include a number of water-efficient features, including, but not limited to:

- Use of low-flow lavatory faucets, kitchen faucets, toilets, and urinals in accordance with CalGreen Code; and
- Inclusion of low-water use landscaping and high-efficiency irrigation systems to minimize outdoor water use in accordance with MWELO.

As described below, the average annual water demand for the Proposed Project was estimated based on: (1) the Cal Water *WSA Water Factor Tool* developed based on 2016-2018 water use data for the Dominguez District (Cal Water, 2019); and (2) information provided by the Project Proponent in coordination with Cal Water (Imperial Avalon LLC, 2021a). Total water demands include water used by the Proposed Project for residential units, commercial uses, landscaping, pools and spas, and water that is lost during distribution (i.e., "distribution system losses" or "unaccounted for water").

**Table 2** includes a summary of the water demand projections associated with the proposed land uses through buildout of the Proposed Project, including assumed distribution system losses. As described in Section 3, for the purpose of this WSA, it is conservatively assumed that full buildout of the MFR dwelling units, landscaping, and commercial spaces will be complete by 2025 and the townhouse community will be complete by 2030.<sup>3</sup>

# 4.1 Residential Water Use

Water use factors in the WSA Water Factor Tool were developed by Cal Water for future single and multi-family developments based on customer-level metered water use records for 2016 through 2018 within the Dominguez District (Cal Water, 2019). The WSA Water Factor Tool allows the user to select appropriate water use factors for a proposed development based on parameters including the mean characteristics of the sample data (e.g., existing service area building stock), or to customize the water factors based on the expected characteristics of the proposed development.

As described in Section 3, a total of 1,213 dwelling units are included in the Proposed Project, with 380 townhome SFR dwelling units and 833 MFR dwelling units. Based on the project description (Imperial Avalon LLC, 2021b), the proposed townhomes are consistent in size with typical existing units in the District. As discussed further in Section 4.3, landscaping water demand calculations provided by the Project Proponent include all public and private landscape irrigation. Thus, indoor-only SFR and MFR demand factors from the WSA Water Factor Tool were used.



Based on these determinations, the water use factor for SFR units is estimated to be 169 gallons per day per dwelling unit (gpd/du), and the MFR water use factor is estimated to be 103 gpd/du.

Applying these water use factors, the residential component of the Proposed Project is expected to use approximately 169 AFY at full buildout.

# 4.2 Commercial Water Use

Based on information provided by the Project Proponent, commercial development for the Project will include 10,352 sq ft of café/restaurant space (Imperial Avalon LLC, 2021b). A 3,200-sq ft restaurant and 1,882-sq ft café will be included in Building B at ground level. A 5,270-sq ft restaurant will be included in Building C at ground level.

Based on the WSA Water Factor Tool, a water use factor for non-residential development of 0.028 gpd/sq ft is applied. The resultant total commercial water use is expected to be 0.32 AFY at full buildout.

# 4.3 Community Landscaping Water Use

The projected water demand for the community landscaping included as part of the Proposed Project was estimated based on the Estimated Total Water Use (ETWU; DWR, 2015). The MWELO requires that the annual ETWU for landscape irrigation not exceed the maximum applied water allowance (MAWA; DWR, 2015). The ETWU is calculated based on the regional reference evapotranspiration rate, an evaporation adjustment factor, and the total landscaped area. The ETWU provided by the Project Proponent is estimated to be 6.6 AFY at full buildout as shown in **Table 2**, and encompasses all irrigated areas including public open spaces and private yards (excluding the distribution system losses discussed in Section 4.5).

The Proposed Project also includes several community pools and spas, which can be considered "special landscaped areas" under the MWELO.<sup>2</sup> Community pools typically remain uncovered during daytime hours and are thus susceptible to evaporative losses. The water use associated with pools and spas planned as part of the Proposed Project is estimated to be 0.62 AFY as calculated in **Table 3**.

The total community landscaping water use, considering all landscape irrigation as well as evaporative losses associated with pools and spas is estimated to be 7.2 AFY.<sup>3</sup>

<sup>&</sup>lt;sup>2</sup> Special landscaped areas may also include landscaping dedicated solely to edible plants, recreational areas, areas irrigated with recycled water, or water features using recycled water.

<sup>&</sup>lt;sup>3</sup> It should be noted that the townhouse community is currently projected to be completed in 2027. However, for the purposes of this WSA, it is conservatively assumed that all landscaping and special landscaped areas will be completed by 2025.



# 4.4 Distribution System Losses

Water distribution systems experience a degree of water loss over the course of transmission from the source to the customer. Although losses from the newly-constructed portion of the system's infrastructure associated with the Proposed Project would initially be expected to be minimal, it is conservatively assumed that distribution system losses associated with delivering water to the Proposed Project will ultimately be consistent with the average percentage of non-revenue water (including real, apparent, and other losses) per the validated 2019 water loss audit that Cal Water has submitted to DWR for the Dominguez District (i.e., 3.4% of Project demands; DWR, 2021). It should be noted that while these losses represent a demand on the system, water lost through the distribution system returns to the underlying groundwater basins and thus is not a true demand on the groundwater supply. However, for purposes of this WSA, all water loss is conservatively considered a demand. **Table 2** shows the non-revenue water associated with the Proposed Project, estimated to be 6.0 AFY at buildout.

# 4.5 Existing Current Water Demand on the Proposed Project Site

The Proposed Project site is currently developed as the Imperial Avalon Mobile Estates, a mobile home park containing 225 mobile home coaches, along with a recreation vehicle storage yard and a common area including a club house, grass field, recreation building, swimming pool, and guest parking area. From 2018 to 2020 water use at the Proposed Project site averaged 31.1 AFY (Cal Water, 2021a). Water demand by the new development is considered incremental to this existing demand, and thus, as shown in **Table 2**, existing site demand is subtracted from the estimated demands associated with the Proposed Project.

# 4.6 Total Project Water Demand

Based on the above methodologies and assumptions, the total incremental annual water demand for the Proposed Project at full buildout and occupancy is conservatively estimated to be 151 AFY, as shown in **Table 2**. It is noted that, while not quantified herein, after consideration of irrigation return flows to groundwater and flows to the area's recycled water system, the actual demand on the supply system (which includes groundwater among its sources) will be less than 151 AFY.

# Table 2 Estimated Project Water Demand

Imperial Avalon Mixed-Use Development Project, City of Carson, California

|  |                          | Water Use     | Water Use       |      | Estimate | d Water l | Jse (AFY) |      |
|--|--------------------------|---------------|-----------------|------|----------|-----------|-----------|------|
| Project                                  | Land Use                 | Factor<br>(a) | Factor<br>Units | 2025 | 2030     | 2035      | 2040      | 2045 |
|  | Single-Family<br>Housing | 169           | gpd/du          | 0    | 72       | 72        | 72        | 72   |
|  | Multi-Family<br>Housing  | 103           | gpd/du          | 97   | 97       | 97        | 97        | 97   |
| Imperial Avalon Mixed-Use<br>Development | Commercial<br>Space      | 0.028         | gpd/sf          | 0.32 | 0.32     | 0.32      | 0.32      | 0.32 |
|  | Landscaping              | (b)           |                 | 6.6  | 6.6      | 6.6       | 6.6       | 6.6  |
|  | Pools/Spas               | (c)           |                 | 0.62 | 0.62     | 0.62      | 0.62      | 0.62 |
| System Water Losses                      | N/A                      | 3.4% (d)      |                 | 3.5  | 6.0      | 6.0       | 6.0       | 6.0  |
| Existing Site Use (e)                    | N/A                      |               |                 | -31  | -31      | -31       | -31       | -31  |
| Total (f)                                | -1                       |               |                 | 76   | 151      | 151       | 151       | 151  |

#### Abbreviations:

"AFY" = acre-feet per year

"ETWU" = Estimated Total Water Use

"ft" = foot

"gpd/du" = gallons per day per dwelling unit

"gpd/sf" = gallons per day per square foot

"MWELO" = Model Water Efficient Landscaping Ordinance

"WSA" = Water Supply Assessment

"yr" = year

#### Notes:

- (a) Water use factors are based on historical water use data for the Dominguez District, as provided in the Cal Water WSA Water Factor Tool, per Reference 1.
- (b) Estimates of landscape irrigation are based on MWELO ETWU calculations provided by Cal Water, per Reference 2. Landscape irrigation estimates include all irrigated areas including public open space and private yards. The Project Proponent is exploring the option to implement rainwater capture and reuse for landscaping on the property; however, this WSA conservatively assumes no onsite reuse will occur.
- (c) Water demand associated with public pools and spas due to evaporative losses is calculated using the MWELO method and presented in Table 3.
- (d) System water losses are based on a 3.4% rate of real losses, per Reference 4.
- (e) Existing site demands per Reference 3. Existing demands are subtracted from total projected water demands to show the incremental increase in demands associated with the Project (i.e., the net increase in water demand). Existing demands are estimated as the average of the last three years of water use at the project site based on available metered data (2018-2020).
- (f) Totals may not sum due to rounding.

#### References:

- 1. Cal Water WSA Water Factor Tool, Cal Water, developed by M.Cubed, received on 15 November 2019.
- 2. Imperial Avalon Submittal Set provided by Cal Water via email, dated 15 March 2021.
- 3. Data provided by Cal Water via email, 22 July 2021.
- 4. DWR, 2021. WUEdata Water Audit Report Data website, accessed 12 July 2021, (https://wuedata.water.ca.gov/awwa plans).

Table 3
Estimated Special Landscaping Water Use

Imperial Avalon Mixed-Use Development Project, City of Carson, California

|                          | [A] Area of Land Use | [B] Annual Reference Evapotranspiration | [C] Evapotranspiration Adjustment Factor | [D] Applied Water (MAWA)   | Estimated Water Use |      |               |      |      |  |  |  |
|--------------------------|----------------------|---|--|----------------------------|---------------------|------|---------------|------|------|--|--|--|
| Landscaping Land Use (a) | (ac)<br>(a)          | Rate (in)<br>(b)                        | (ETAF)<br>(c)                            | (AFY)<br>D = A * B * C (d) | 2025                | 2030 | (AFY)<br>2035 | 2040 | 2045 |  |  |  |
| Communal Pools and Spas  | 0.14                 | 44                                      | 1.2                                      | 0.62                       | 0.62                | 0.62 | 0.62          | 0.62 | 0.62 |  |  |  |
| Est                      | imated Total O       | 0.62                                    | 0.62                                     | 0.62                       | 0.62                | 0.62 | 0.62          |      |      |  |  |  |

# Abbreviations:

"ac" = acre

"AFY" = acre-feet per year

"ETAF" = Evapotranspiration Adjustment Factor

"IE" = Irrigation Efficiency

"in" = inches

"MAWA" = Maximum Applied Water Allowance

"PF" = Plant Factor

#### Notes:

- (a) Pool and spa area are estimated based on landscape plans provided in Reference 1.
- (b) Annual reference evapotranspiration rate per Reference 2.
- (c) The ETAF is calculated based on a PF of 1 and IE of 0.81.
- (d) The MAWA calculations are described in Reference 2.

#### **References:**

- 1. Imperial Avalon Submittal Set provided by Cal Water via email, dated 15 March 2021.
- 2. California Code of Regulations, Title 23, Division 2, Chapter 2.7, Model Water Efficient Landscape Ordinance, 29 September 2020.



# 5 CAL WATER DOMINGUEZ DISTRICT WATER DEMAND

#### Water Code Section 10910

- (c) (1) The city or county, at the time it makes the determination required under Section 21080.1 of the Public Resources Code, shall request each public water system identified pursuant to subdivision (b) to determine whether the projected water demand associated with a proposed project was included as part of the most recently adopted urban water management plan adopted pursuant to Part 2.6 (commencing with Section 10610).
- (c) (2) If the projected water demand associated with the proposed project was accounted for in the most recently adopted urban water management plan, the public water system may incorporate the requested information from the urban water management plan in preparing the elements of the assessment required to comply with subdivisions (d), (e), (f), and (g).
- (c) (3) If the projected water demand associated with the proposed project was not accounted for in the most recently adopted urban water management plan, or the public water system has no urban water management plan, the water supply assessment for the project shall include a discussion with regard to whether the public water system's total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing uses.

In support of the development of its 2020 UWMPs, Cal Water updated its estimates of projected future water demand for the Dominguez District (Cal Water, 2021b). Consistent with the UWMP Act (Water Code §10610-10656), Cal Water's projected future water demand is estimated in five-year increments, between the years 2025 and 2045.

The updated water demand projections account for growth within the Dominguez District through 2045 based on historical growth rates within the Dominguez District and as projected by the Southern California Association of Governments (SCAG).

The number of SFR services and MFR services are both projected to increase by approximately 8.5% between 2020 and 2045 (Cal Water, 2021b).<sup>4</sup> This corresponds to a net increase of 2,459 SFR service connections and 64 MFR service connections (approximately 2,216 new MFR dwelling units) within the Dominguez District. Based on a review of the projected Dominguez District growth assumptions, Cal Water has determined that the Proposed Project is within the growth anticipated within the Dominguez District and thus is accounted for in the demand projections.<sup>5</sup>

Total water demands for the Dominguez District are therefore considered inclusive of the demands associated with the Proposed Project.

<sup>&</sup>lt;sup>4</sup> Service growth projections projected in the 2020 UWMP are tied to census tract level population, housing, and employment projections developed by the Southern California Association of Governments (SCAG).

<sup>&</sup>lt;sup>5</sup> It should be noted that the UWMP projects increased water use efficiency over this timeframe, and thus a net decrease in SFR and MFR demands despite the net increase in service connections.



# 5.1 Current and Historical Water Demand Within the Dominguez District Service Area

Historical water demand within the Dominguez District from 2000 through 2020 is summarized in **Table 4**. Based on water use from 2016-2020, the majority of the water demand within the Dominguez District is from the Industrial sector, which represented 37% of the demand. The remainder of the demand was split between SFR (28% of overall demand), Commercial (22% of overall demand), MFR (9% of overall demand), and governmental (4% of overall demand) (Cal Water, 2021c).

Water use from 2000 to 2008 remained fairly consistent within the Dominguez District, at an average of approximately 37,066 AFY. A decrease in water use occurred from 2008 to 2011, which generally corresponds with the 2007-2009 drought and the economic downturn. Then, a significant drop in water demand occurred in 2014 through 2016, corresponding with the recent historic drought and mandatory state-wide water use restrictions and water conservation targets. Total water demand within the Dominguez District was 28,381 AFY in 2020 (Cal Water, 2021b).

# 5.2 Planned Development Projects within the Dominguez District

The updated water demand projections incorporate current and historical water usage within the Dominguez District, which reflect Cal Water's best efforts to include the development and growth that has occurred within the Dominguez District to date (Cal Water, 2021b). As discussed above, Cal Water has determined that the water demand associated with the Proposed Project is within the growth anticipated within the Dominguez District and is accounted for in the updated Dominguez District demand projections. Thus, the demand projections presented in **Table 8** are inclusive of all identified and anticipated development, including the water demand associated with the Proposed Project.

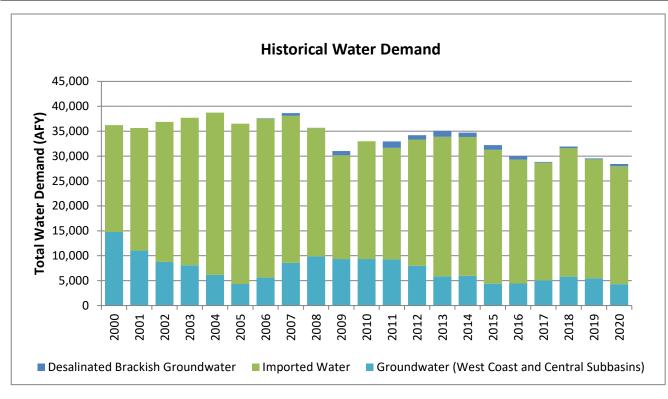
# 5.3 Water Demand Projections

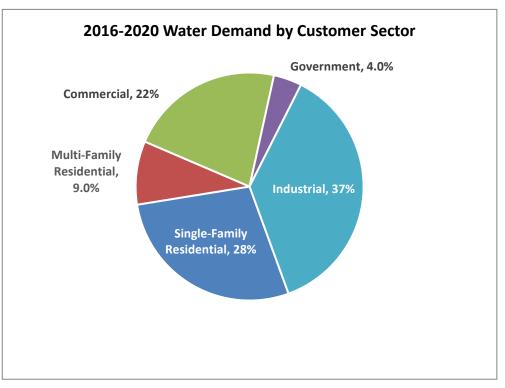
Water demands for the Dominguez District were estimated through 2045 in support of the recent Dominguez District 2020 UWMP (2020 UWMP; Cal Water, 2021b). The updated demand projections for the Dominguez District are presented in **Table 8** in five-year increments. It is estimated that, inclusive of the Proposed Project, the total annual water demand for the Dominguez District will be approximately 28,349 AFY in 2045.

Table 4
Historical Water Demand for Dominguez District

Imperial Avalon Mixed-Use Development Project, City of Carson, California

|                                   |        | Cal Water Historical Annual Water Demand (a) |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|-----------------------------------|--------|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Category                          |        |  |        |        |        |        |        |        |        |        | (AFY)  |        |        |        |        |        |        |        |        |        |        |
|                                   | 2000   | 2001   | 2002   | 2003   | 2004   | 2005   | 2006   | 2007   | 2008   | 2009   | 2010   | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
| Imported Water                    | 21,454 | 24,622                                       | 28,113 | 29,600 | 32,570 | 32,184 | 31,885 | 29,548 | 25,726 | 20,784 | 23,645 | 22,371 | 25,330 | 28,005 | 27,858 | 26,886 | 24,843 | 23,633 | 25,825 | 23,848 | 23,673 |
| Groundwater (West Coast Subbasin) | 14 756 | 11 022                                       | 8.759  | 9 000  | C 171  | 4 215  | F 612  | 0.553  | 0.860  | 0.251  | 0.247  | 0.275  | 7 001  | F 073  | F 077  | 4 405  | 3,432  | 3,615  | 4,227  | 4,018  | 2,836  |
| Groundwater (Central Subbasin)    | 14,750 | 11,032                                       | 8,759  | 8,099  | 6,171  | 4,315  | 5,612  | 8,552  | 9,869  | 9,351  | 9,347  | 9,275  | 7,991  | 5,872  | 5,977  | 4,405  | 1,005  | 1,435  | 1,570  | 1,479  | 1,463  |
| Desalinated Brackish Groundwater  | 0      | 0  | 0      | 0      | 0      | 0      | 90     | 541    | 92     | 875    | 0      | 1,286  | 891    | 1,180  | 878    | 926    | 707    | 138    | 291    | 186    | 438    |
| Total Water Demand                | 36,210 | 35,654                                       | 36,872 | 37,699 | 38,740 | 36,499 | 37,587 | 38,641 | 35,687 | 31,011 | 32,992 | 32,932 | 34,212 | 35,058 | 34,713 | 32,216 | 29,986 | 28,821 | 31,913 | 29,531 | 28,410 |





# Abbreviations:

"AFY" = acre-feet per year

"WBMWD" = West Basin Municipal Water District

#### Notes:

- (a) Historical water demands for 2000-2015 per Reference 3 and 2016-2020 per Reference 1. 2016-2020 water use by customer sector per Reference 2.
- (b) The table herein does not include non-potable demands which are met by recycled water served by WBMWD in the Dominguez District.

### References:

- 1. 2020 Urban Water Management Plan, Dominguez District, prepared by California Water Service, dated June 2021.
- 2. 2021-2025 Conservation Master Plan, Dominguez District, prepared by California Water Service, dated April 2021.
- 3. PAWS Data, Dominguez District, prepared by California Water Service, dated January 2021.



# 6 CAL WATER DOMINGUEZ DISTRICT WATER SUPPLY

This section identifies the water supplies for the Dominguez District and discusses the variability of the different supplies based on drought and other factors affecting water supply reliability. The water supply for the Dominguez District is a combination of the following sources:

- Imported water purchased from the West Basin Municipal Water District (WBMWD) and the City of Torrance, which are member agencies of the Metropolitan Water District of Southern California (MWD),
- Groundwater pumped from two adjudicated groundwater basins the West Coast Subbasin (DWR Basin No. 4-011.03) and the Central Subbasin (DWR Basin No. 4-011.04),
- Treated desalinated brackish groundwater produced in the C. Marvin Brewer Desalter owned by WBMWD, and
- Recycled wastewater produced by the WBMWD in their West Basin Water Recycling Plant located in El Segundo.

The Proposed Project will be served potable water, which would be expected to be a combination of imported water, groundwater, and desalinated water.

# **6.1** Identification of Water Supply Rights

#### Water Code Section 10910

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

Pursuant to Water Code §10910(d)(1), a WSA is required to include identification of all water supply entitlements, water rights, and water service contracts relevant to the identified water supply for the Proposed Project. In accordance with these requirements, this WSA includes a summary of each of Cal Water's supply sources in the Dominguez District service area.

#### 6.2 Purchased Water

The Dominguez District purchases imported water from WBMWD and the City of Torrance, both of which are member agencies of the MWD. WBMWD and the City of Torrance act as secondary wholesale water agencies, purchasing the water from MWD and reselling it to the Dominguez District. Cal Water does not have a contract with WBMWD but is entitled to purchase water as a "customer" of WBMWD. Cal Water has a water purchase agreement dated 11 August 1982 with the City of Torrance through Cal Water's acquisition of the Dominguez Water Company, included as Appendix A. MWD supplies imported water sourced from the State Water Project (SWP) and Colorado River via a series of pipelines and aqueducts. Historical use of imported water is shown in **Table 5**.



The Colorado River was MWD's original source of water following its establishment in 1928 (WBMWD, 2021). MWD has a legal entitlement to receive water from the Colorado River under a permanent service contract with the United States Secretary of the Interior (WBMWD, 2021). The Colorado River Aqueduct, which has a capacity of 1.25 million acre-feet per year, is owned and operated by MWD (WBMWD, 2021). It transports water from Lake Havasu, at the border of California and Arizona, approximately 242 miles west to its terminus at Lake Mathews in Riverside County and MWD's service area (WBMWD, 2021).

MWD imports water from the SWP, which is owned by the State of California and operated by DWR. This project transports Feather River water stored in and released from Oroville Dam and conveyed through the Bay-Delta, as well as unregulated flows diverted directly from the Bay-Delta, south via the California Aqueduct to four delivery points — one from the California Aqueduct's West Branch at Castaic Lake and three from the East Branch along the northeastern portion of MWD's service area between Devil's Canyon Power Plant and Lake Perris (WBMWD, 2021).

# 6.3 Groundwater Supply

#### Water Code Section 10910

- (f) If a water supply for a proposed project includes groundwater, the following additional information shall be included in the water supply assessment:
  - (1) A review of any information contained in the urban water management plan relevant to the identified water supply for the proposed project.
  - (2) (A) A description of any groundwater basin or basins from which the proposed project will be supplied.
    - (B) For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has the legal right to pump under the order or decree.
    - (C) For a basin that has not been adjudicated that is a basin designated as high- or medium-priority pursuant to Section 10722.4, information regarding the following:
      - (i) Whether the department has identified the basin as being subject to critical conditions of overdraft pursuant to Section 12924.
      - (ii) If a groundwater sustainability agency has adopted a groundwater sustainability plan or has an approved alternative, a copy of that alternative or plan.
    - (D) For a basin that has not been adjudicated that is a basin designated as low- or very low priority pursuant to Section 10722.4, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current bulletin of the department that characterizes the condition of the groundwater basin, and a detailed description by the public water system, or the city or county if either is required to comply



with this part pursuant to subdivision (b), of the efforts being undertaken in the basin or basins to eliminate the long-term overdraft condition.

- (3) A detailed description and analysis of the amount and location of groundwater pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), for the past five years from any groundwater basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.
- (4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), from any basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.
- (5) An analysis of the sufficiency of the groundwater from the basin or basins from which the proposed project will be supplied to meet the projected water demand associated with the proposed project. A water supply assessment shall not be required to include the information required by this paragraph if the public water system determines, as part of the review required by paragraph (1), that the sufficiency of groundwater necessary to meet the initial and projected water demand associated with the project was addressed in the description and analysis required by paragraph (4) of subdivision (b) of Section 10631.

The Dominguez District pumps groundwater from two adjudicated groundwater basins - the West Coast Subbasin and the Central Subbasin of the Los Angeles Groundwater Basin (DWR Basins No. 4-011.03 and 4-011.04, respectively), shown on **Figure 4**. The Dominguez District currently relies on groundwater for 10% to 20% of its total supply, as shown in **Table 5**. The Proposed Project site overlies the West Coast Subbasin, but both basins supply water to the Dominguez District and are described below, based primarily on information presented in the District's 2020 UWMP.

# 6.3.1 Basin Description

#### 6.3.1.1 West Coast Subbasin

The West Coast Subbasin is bounded on the north by the Ballona Escarpment, an abandoned erosional channel from the Los Angeles River. On the east it is bounded by the Newport-Inglewood fault zone and on the south and west by the Pacific Ocean and consolidated rocks of the Palos Verdes Hills. The surface of the subbasin is crossed in the south by the Los Angeles River through the Dominguez Gap, and the San Gabriel River through the Alamitos Gap, both of which then flow into San Pedro Bay. The West Coast Subbasin is a pressurized aquifer groundwater basin with three primary aquifers: the 200-foot Sands, the Silverado Aquifer, and the Lower San Pedro Aquifer. These aquifers have continuity with the Pacific Ocean in Santa Monica Bay. Overdraft of the basin was caused by excessive pumping due to population growth and rapid industrialization of the Los Angeles Coastal Plain beginning in the 1930s. This overdraft caused lowering of the piezometric head of the aquifers, which increased pumping cost and resulted in seawater intrusion.



# 6.3.1.2 Central Subbasin

The Central Subbasin is bounded on the north by a surface divide called the La Brea High, and on the northeast and east by emergent less permeable Tertiary rocks of the Elysian, Repetto, Merced and Puente Hills. The southeast boundary roughly follows Coyote Creek, which is a regional drainage province boundary. The southwest boundary is formed by the Newport Inglewood fault system and the associated folded rocks of the Newport Inglewood uplift. The Los Angeles and San Gabriel Rivers drain inland basins and pass across the surface of the Central Subbasin on their way to the Pacific Ocean Bay.

#### 6.3.2 Basin Status

# 6.3.2.1 West Coast Subbasin

The adjudication of the West Coast Subbasin began in 1945 when Cal Water, along with the City of Torrance and the Palos Verdes Water Company filed a lawsuit in Superior Court, Los Angeles County, to quiet title to the groundwater rights and control pumping in the basin. As part of the effort to resolve the overdraft condition, the WBMWD was formed in 1947 to distribute supplemental MWD imported water to the major water purveyors. In 1955 when pumpers realized the severity of the overdraft, groundwater pumping was limited under an interim agreement. In 1961, the Court rescinded the interim agreement and signed the West Coast Basin Judgment.

The Water Replenishment District of Southern California (WRD) was created in 1959, largely out of cooperation between the West Coast Basin Water Association and the Central Basin Water Association, with the directive to facilitate artificial replenishment of the two basins as a means of eliminating the overdraft and halting seawater intrusion. To quiet the title to and limit production of the groundwater in the West Coast Subbasin the WRD filed a lawsuit in Superior Court, Los Angeles County, in 1962 against more than 700 parties. Later that year after a vast majority of the pumpers approved of the approach, the Court adopted an interim agreement to limit the production from the basin. In 1965, following extensive meetings by the parties to work out a settlement that was supported by pumpers representing over 75% of the basin's anticipated water rights, the court approved the stipulated judgment for the West Coast Subbasin.

The Dominguez Water Company was identified as a party to the judgment and granted water rights. Now Cal Water, as a result of the merger with Dominguez Water Company (now the Dominguez District), has an allowable pumping allocation (APA) of 10,417.45 AFY of adjudicated rights in the West Coast Subbasin, or 16.15% of the total basin annual adjudicated rights of 64,486.25 AFY. As a result of the reduction in pumping ordered by the adjudication, increased recharge via injection wells of the seawater intrusion barrier, and in-lieu replenishment, the water levels in the West Coast Subbasin have slowly recovered to near 1940 levels.

#### 6.3.2.2 Central Subbasin

The adjudication of the Central Subbasin began not out of litigation as in the West Coast Subbasin, but out of the collective concern expressed by the major pumpers regarding the



impacts that reduced groundwater quantity and quality would have on the future of their communities. The Central Basin Municipal Water District (CBMWD) was formed in 1952 to distribute supplemental water to the major water purveyors. In 1954 it was annexed to the MWD, so that access to the imported water supplies was available to the region.

To quiet the title to and limit production of the groundwater in the Central Subbasin the WRD filed a lawsuit in Superior Court, Los Angeles in 1962 against more than 700 parties. Later that year after a vast majority of the pumpers approved of the approach, the Court adopted an interim agreement to limit the production from the basin. In 1965, following extensive meetings by the parties to work out a settlement that was supported by pumpers representing over 75% of the basin's anticipated water rights, the court approved the stipulated judgment for the Central Subbasin.

This judgment established an adjudicated water right for each party, but limited the APA to 80% of the water right, which equals 217,367 AFY. The Dominguez Water Company was identified as a party to the judgment and granted water rights. As a result of the merger with Dominguez Water Company (now the Dominguez District), Cal Water now has 6,480 AFY of APA in the Central Subbasin. The following table shows the Dominguez District's APAs in both basins.

Table 6
Dominguez District Allowable Pumping Allocations

| Basin Name          | Allowable Pumping Allocation (AF) |
|---------------------|-----------------------------------|
| Central Subbasin    | 6,480                             |
| West Coast Subbasin | 10,417.45                         |
| Total               | 16,897.45                         |

Detailed descriptions of the subbasins are given in California's Ground Water Bulletin 118.<sup>6</sup> Summaries of the West Coast and Central Subbasin adjudication orders can be found at <a href="https://www.usbr.gov/lc/socal/basinstudies/LA%20Adjudication%20Dec%202014.pdf">https://www.usbr.gov/lc/socal/basinstudies/LA%20Adjudication%20Dec%202014.pdf</a>.

# 6.3.3 Groundwater Management

The Sustainable Groundwater Management Act (SGMA) and its subsequent amendments do not apply to adjudicated basins such as the West Coast and Central Subbasins. Instead, as the regional groundwater management agency for West Coast and Central Subbasins, two of the most utilized groundwater basins in the state of California, the WRD plays an integral role in overall water resource management in southern Los Angeles County. The WRD manages groundwater for nearly four million residents in 43 cities of southern Los Angeles County. The 420 square mile

October 2021 Page 25 of 39 EKI C10063.00

<sup>&</sup>lt;sup>6</sup> Current Bulletin 118 information is available on DWR's website: <a href="https://water.ca.gov/programs/groundwater-management/bulletin-118">https://water.ca.gov/programs/groundwater-management/bulletin-118</a>



service area uses about 250,000 AFY of groundwater, which equates to nearly 40% of the total demand for water. The WRD ensures that a reliable supply of high quality groundwater is available through its clean water projects, water supply programs, and effective management principles (WRD, 2021).

#### 6.3.4 Brackish Groundwater

The Dominguez Desalinization Demonstration Project, also known as the C. Marvin Brewer Desalter (Desalter), produces potable water from brackish groundwater produced from the Silverado aquifer of the West Coast Subbasin. The Desalter began operating in July 1993 and was built on a site owned by Cal Water in Torrance (WBMWD, 2021). The Desalter removes chloride from groundwater impacted by seawater intrusion in the West Coast Subbasin (WBMWD, 2021). Desalinization of brackish groundwater is an alternative that typically uses the membrane desalting technology known as reverse osmosis. Because the concentration of salts in this process is often substantially less than that of seawater, the cost per acre-foot to produce this water supply is also much less. **Table 5** shows the historical use of this source by the Dominguez District.

The Desalter originally used two wells to pump brackish water from a saline plume remaining within the West Coast Subbasin and treats the water using cartridge filters and reverse osmosis. The treated water from the Desalter is blended with potable water, stored on the Cal Water site in a 5.0 million gallon storage reservoir, and then delivered to the distribution system (WBMWD, 2021). Under the terms of an agreement with Cal Water, WBMWD reimburses Cal Water to operate and maintain the Desalter (WBMWD, 2021). In 2005, the original two wells were replaced with one more productive well that has the capability to pump 1,600 to 2,400 AFY (WBMWD, 2021). Brackish groundwater pumping is not considered as part of the Dominguez District's APA calculation in the West Coast Subbasin.

### 6.3.5 Groundwater Use

The Dominguez District has a total of ten active and two inactive wells located within the Dominguez District service area boundaries, four of which (three active and one inactive) are located in the Central Subbasin and eight of which (seven active and one inactive) are located in the West Coast Subbasin. Pursuant to Water Code §10910f(3), the amount of groundwater pumped by Cal Water within the Dominguez District for the past five years is provided in **Table 7**. The groundwater pumping data shown in **Table 7** extends beyond the required period and includes data from 2000 through 2020 (Cal Water, 2021d).

As shown in **Table 7**, the groundwater pumping volumes within the Dominguez District in recent years (not including desalinated brackish groundwater; an average of 4,892 AFY from 2015 through 2020) are lower than they were in previous years (an average of 8,332 AFY from 2000 through 2014), reflecting Cal Water's successful implementation of water conservation measures

<sup>&</sup>lt;sup>7</sup> Per WBMWD's UWMP, WBMWD is likely to divest the Desalter from its supply portfolio in the near term (WBMWD, 2021). However, it is assumed that the Desalter facility will be purchased by another entity and will continue operation similar to that of recent years.



in response to the drought and continued efficiency due to passive conservation and demand hardening. The available groundwater supply (supplemented by its other supplies) have been sufficient to meet all of the Dominguez District's demands in the past five years and all prior years.

# 6.3.6 Analysis of Sufficiency of Groundwater Supply

The Dominguez District overlies the West Coast Subbasin and the Central Subbasin of the Los Angeles Groundwater Basin, both of which are adjudicated (Section 6.3.2). The Dominguez District has an APA of 10,417.45 AFY of adjudicated rights in the West Coast Subbasin and an APA of 6,480 AFY in the Central Subbasin. These adjudication rights are considered 100% reliable. The desalinated brackish groundwater produced by the Desalter is similarly considered 100% reliable at the projected volume of 438 AFY, the average of the annual volumes taken from that source between 2016 and 2020. Thus, Cal Water expects that, under all hydrologic conditions, groundwater supplies will fully meet future groundwater demands.

# 6.4 Recycled Water

The Proposed Project is not proximate to a recycled water main, and is not expected to utilize recycled water. However, recycled water represents a source of supply for the Dominguez District and is discussed below for completeness.

Recycled water is provided to the Dominguez District service area by the WBMWD. The source of the recycled water is treated effluent from the City of Los Angeles' Hyperion Wastewater Treatment Plant (WWTP). The Hyperion WWTP provides secondary treatment using an activated sludge process.

Most of the Hyperion WWTP treated effluent is disposed of through an ocean outfall, but approximately 6% of it is sent to WBMWD's main treatment facility, the Edward C. Little Water Recycling Facility (ELWRF). The ELWRF produces five types of water quality levels which include: Title 22 (tertiary treatment), Nitrified, Barrier (West Coast Barrier), Industrial reverse osmosis (RO) (single-pass RO or low pressure boiler feed), and Industrial RO Ultra (dual-pass RO or high pressure boiler feed water). The various types of product recycled water qualities from ELWRF are conveyed through a network of nearly 100 miles of distribution pipelines ranging in diameter from 4 to 60 inches.

Recycled water from the ELWRF is used for several purposes including: (1) groundwater replenishment through more than 100 wells, (2) landscape irrigation, and (3) industrial process water. The ELWRF serves more than 140 sites including areas in Manhattan Beach, Torrance, Hermosa Beach, and Inglewood. In the Dominguez District service area, the recycled water is used for landscape irrigation, oil refineries, and groundwater recharge. The Dominguez District's recycled water demands comprise a small fraction of the ELWRF total capacity and have been met historically. Therefore, recycled water is projected in its 2020 UWMP to be a reliable source to the Dominguez District. In 2020, 14% (4,587 AF) of the District's total demands were met by



recycled water. Through 2045, it is projected that recycled water will continue to meet 14% of the District's demands (i.e., 4,737 AFY; Cal Water 2021b).

# 6.5 Total Projected Potable Supply in Normal, Single Dry, and Multiple Dry Years

#### Water Code Section 10910

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

As discussed above, the water supply for the Dominguez District is a combination of: (1) imported water purchased from WBMWD and the City of Torrance, which are member agencies of the MWD; (2) groundwater pumped from the West Coast Subbasin and the Central Subbasin; (3) treated desalted brackish groundwater pumped from the West Coast Subbasin and produced in the C. Marvin Brewer Desalter; and (4) recycled wastewater produced by the WBMWD.

The WBMWD 2020 UWMP states that it will be able to serve 100% of projected demands in normal, single-dry and multiple-dry years (WBMWD, 2021). Similarly, the City of Torrance 2020 UWMP states that it will be able to serve 100% of projected demands in normal, single-dry and multiple-dry years (Torrance, 2021). Because of this, Cal Water expects that, under all hydrologic conditions, purchased water supplies will fully meet future purchased water demands.

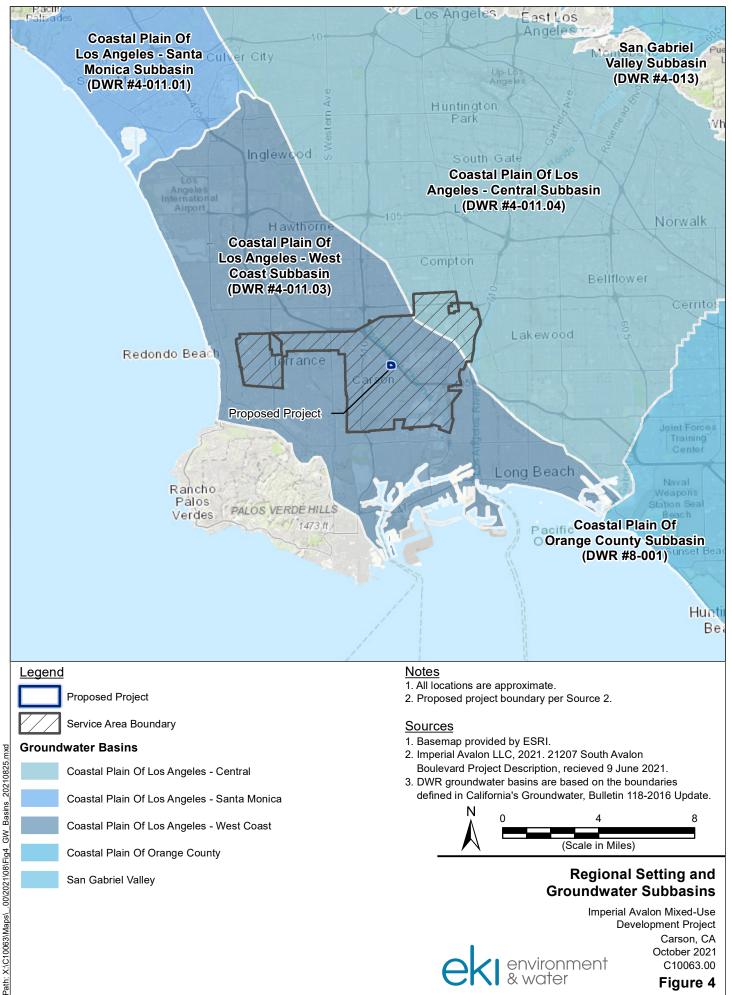
Groundwater pumping demand projections through 2045 for the Dominguez District are provided in **Table 7**. For the purposes of this analysis of supply sufficiency, the available groundwater supply within the Dominguez District under normal conditions is estimated to be the sum of the Dominguez District's two APAs: 10,417.45 AFY of adjudicated rights in the West Coast Subbasin and 6,480 AFY in the Central Subbasin. The currently projected maximum groundwater pumping in the Dominguez District, inclusive of the Proposed Project, is 5,885 AF in 2025 and 2030. This level of pumping is significantly below the combined total of the Dominguez District's two APAs, which sum to 16,897.45 AFY.

The desalinated brackish groundwater produced by the Dominguez Desalination Demonstration Project is similarly considered 100% reliable at the projected volume of 438 AFY, the average of the annual volumes taken from that source between 2016 and 2020.

The Dominguez District uses a small amount of recycled water from the ELWRF, which is operated by WBMWD and currently provides an estimated 32,200 AFY to over 200 customer sites. The ELWRF, when fully constructed, has the potential to deliver nearly 70,000 AFY of tertiary treated recycled water. The Dominguez District's recycled water demands comprise a small fraction of the ELWRF total capacity and have been fully met historically. Therefore, recycled water is projected to be a reliable source to the Dominguez District.



For purposes of this WSA, the available supplies are considered to be equal to the Dominguez District demands, inclusive of the Proposed Project, under all conditions (i.e., current and projected, and for normal, single dry, and multiple dry years including a five-year drought period). The total projected potable supplies for normal, single dry, and multiple dry years are presented in **Tables 8, 9**, and **10**, respectively.



Coastal Plain Of Los Angeles - Central

Coastal Plain Of Los Angeles - Santa Monica

Coastal Plain Of Los Angeles - West Coast

Coastal Plain Of Orange County

San Gabriel Valley

- Boulevard Project Description, recieved 9 June 2021.
- 3. DWR groundwater basins are based on the boundaries defined in California's Groundwater, Bulletin 118-2016 Update.



# **Regional Setting and Groundwater Subbasins**

Imperial Avalon Mixed-Use **Development Project** Carson, CA October 2021 C10063.00

Figure 4

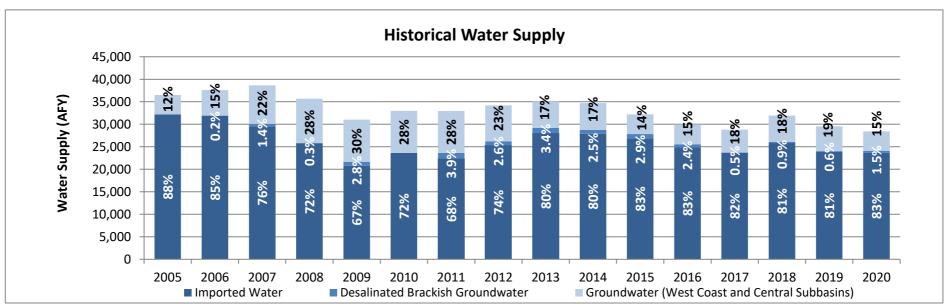


Table 5

Historical Water Supply for the Dominguez District

Imperial Avalon Mixed-Use Development Project, City of Carson, California

|                                   | Historical Water Supply (AFY) (a) |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|-----------------------------------|-----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Water Supply Source               | 2005                              | 2006   | 2007   | 2008   | 2009   | 2010   | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
| Imported Water                    | 32,184                            | 31,885 | 29,548 | 25,726 | 20,784 | 23,645 | 22,371 | 25,330 | 28,005 | 27,858 | 26,886 | 24,843 | 23,633 | 25,825 | 23,848 | 23,673 |
| Groundwater (West Coast Subbasin) | 4 215                             | F 612  | 0.553  | 0.960  | 0.251  | 0.247  | 0.275  | 7 001  | F 072  | F 077  | 4.405  | 3,432  | 3,615  | 4,227  | 4,018  | 2,836  |
| Groundwater (Central Subbasin)    | 4,315                             | 5,612  | 8,552  | 9,869  | 9,351  | 9,347  | 9,275  | 7,991  | 5,872  | 5,977  | 4,403  | 1,005  | 1,435  | 1,570  | 1,479  | 1,463  |
| Desalinated Brackish Groundwater  | 0                                 | 90     | 541    | 92     | 875    | 0      | 1,286  | 891    | 1,180  | 878    | 926    | 707    | 138    | 291    | 186    | 438    |
| Total Water Supply                | 36,499                            | 37,587 | 38,641 | 35,687 | 31,011 | 32,992 | 32,932 | 34,212 | 35,058 | 34,713 | 32,216 | 29,986 | 28,821 | 31,913 | 29,531 | 28,410 |



#### Abbreviations:

"AFY" = acre-feet per year

"WBMWD" = West Basin Municipal Water District

"Cal Water" = California Water Service, Dominguez District

# Notes:

- (a) Historical water demands for the Dominguez District for 2005-2015 per Reference 2 and 2016-2020 per Reference 1.
- (b) The table herein does not include non-potable recycled water supply served by WBMWD in the Dominguez District.

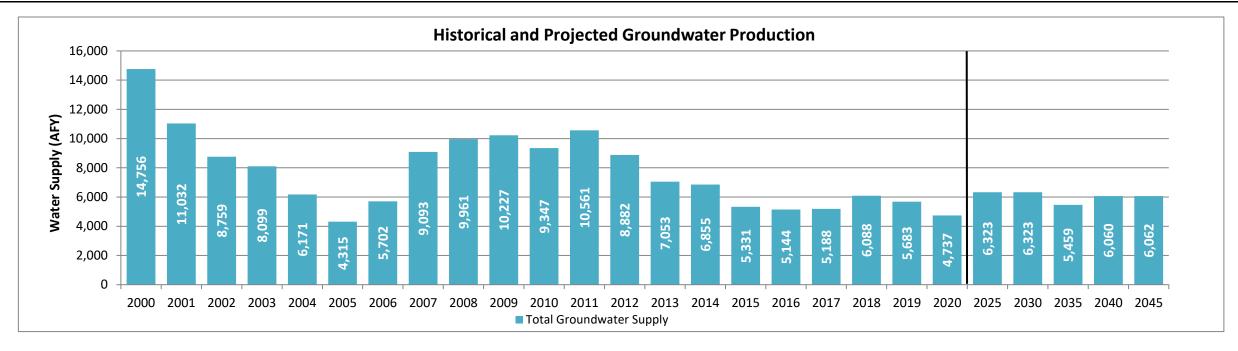
#### References:

- 1. 2020 Urban Water Management Plan, Dominguez District, prepared by California Water Service, dated June 2021.
- 2. PAWS Data, Dominguez District, prepared by California Water Service, dated January 2021.

Table 7
Historical and Projected Groundwater Pumping

Imperial Avalon Mixed-Use Development Project, City of Carson, California

|                                      |        | Historical Groundwater Production (a) (AFY) |       |       |       |       |       |       |       |        |         |          |         |          |           |       |       | Projected Groundwater Production (AFY) |       |       |       |       |       |       |       |       |
|--------------------------------------|--------|---|-------|-------|-------|-------|-------|-------|-------|--------|---------|----------|---------|----------|-----------|-------|-------|--|-------|-------|-------|-------|-------|-------|-------|-------|
| Water Supply Source (b)              | 2000   | 2001  | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009   | 2010    | 2011     | 2012    | 2013     | 2014      | 2015  | 2016  | 2017                                   | 2018  | 2019  | 2020  | 2025  | 2030  | 2035  | 2040  | 2045  |
| Groundwater (West Coast<br>Subbasin) | 14 756 | 11 022                                      | 0.750 | 8 000 | C 171 | 4 215 | F 612 | 0.552 | 0.860 | 0.251  | 0.247   | 0.275    | 7.001   | F 072    | F 077     | 4.405 |       | 3,615                                  | 4,227 | 4,018 | 2,836 | г оог | F 00F | F 021 | г 633 | F 624 |
| Groundwater (Central<br>Subbasin)    | 14,756 | 11,032                                      | 8,759 | 8,099 | 6,171 | 4,315 | 5,612 | 8,552 | 9,869 | 9,351  | 1 9,347 | 47 9,275 | 5 7,991 | 31 5,872 | 872 5,977 | 4,405 |       | 1,435                                  | 1,570 | 1,479 | 1,463 | 5,885 | 5,885 | 5,021 | 5,622 | 5,624 |
| Desalinated Brackish<br>Groundwater  | 0      | 0   | 0     | 0     | 0     | 0     | 90    | 541   | 92    | 875    | 0       | 1,286    | 891     | 1,180    | 878       | 926   | 707   | 138                                    | 291   | 186   | 438   | 438   | 438   | 438   | 438   | 438   |
| Total Groundwater<br>Supply          | 14,756 | 11,032                                      | 8,759 | 8,099 | 6,171 | 4,315 | 5,702 | 9,093 | 9,961 | 10,227 | 9,347   | 10,561   | 8,882   | 7,053    | 6,855     | 5,331 | 5,144 | 5,188                                  | 6,088 | 5,683 | 4,737 | 6,323 | 6,323 | 5,459 | 6,060 | 6,062 |



# Abbreviations:

"AFY" = acre feet per year

"Cal Water" = California Water Service, Dominguez District

# Notes:

(a) Historical groundwater pumping data for 2000-2015 per Reference 2 and 2016-2020 per Reference 1 and projected groundwater pumping data per Reference 1.

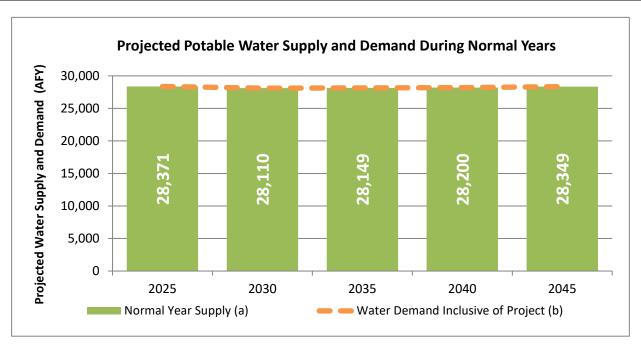
#### References:

- 1. 2020 Urban Water Management Plan, Dominguez District, prepared by California Water Service, dated June 2021.
- 2. PAWS Data, Dominguez District, prepared by California Water Service, dated January 2021.

# Table 8 Projected Normal Year Water Supply and Demand for the Dominguez District

Imperial Avalon Mixed-Use Development Project, City of Carson, California

|                                       | Projected Water Supply and Demand (AFY) |        |        |        |        |  |  |  |  |  |  |  |  |
|---------------------------------------|---|--------|--------|--------|--------|--|--|--|--|--|--|--|--|
| Water Demand and Supply Source        | 2025                                    | 2030   | 2035   | 2040   | 2045   |  |  |  |  |  |  |  |  |
| Normal Year Supply (a)                | 28,371                                  | 28,110 | 28,149 | 28,200 | 28,349 |  |  |  |  |  |  |  |  |
| Water Demand Inclusive of Project (b) | 28,371                                  | 28,110 | 28,149 | 28,200 | 28,349 |  |  |  |  |  |  |  |  |
| Supply Shortfall (% demand)           | 0%                                      | 0%     | 0%     | 0%     | 0%     |  |  |  |  |  |  |  |  |



#### Abbreviations:

#### Notes:

- (a) Projected supply is based on the fact that all water sources were characterized as reliable in the Dominguez District 2020 UWMP, and projected groundwater pumping is well below the combined APAs held by the Dominguez District in the West Coast and Central Subbasins. Thus, the available supplies are considered equal to demands under all conditions. See Section 7 of this WSA for additional information.
- (b) Water demand projections for the Dominguez District were updated in 2021, and are presented per Reference 1. As discussed in Section 5 of this WSA, the demands associated with the Proposed Project are within the projected demands and growth included in the Dominguez District 2020 UWMP.
- (c) The table herein does not include non-potable demands which are met by recycled water served by WBMWD in the Dominguez District.

#### References:

1. 2020 Urban Water Management Plan, Dominguez District, prepared by California Water Service, dated June 2021.

<sup>&</sup>quot;AFY" = acre-feet per year

<sup>&</sup>quot;APA" = allowable pumping allocation

<sup>&</sup>quot;UWMP" = Urban Water Management Plan

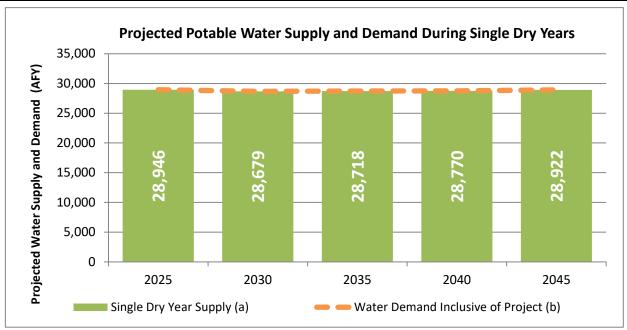
<sup>&</sup>quot;WBMWD" = West Basin Municipal Water District

<sup>&</sup>quot;WSA" = Water Supply Assessment

# Table 9 Comparison of Single Dry Year Water Supply and Demand for the Dominguez District

Imperial Avalon Mixed-Use Development Project, City of Carson, California

|                                       | Projected Water Supply and Demand (AFY) |        |        |        |        |  |  |  |  |  |  |  |  |
|---------------------------------------|---|--------|--------|--------|--------|--|--|--|--|--|--|--|--|
| Water Supply Source                   | 2025                                    | 2030   | 2035   | 2040   | 2045   |  |  |  |  |  |  |  |  |
| Single Dry Year Supply (a)            | 28,946                                  | 28,679 | 28,718 | 28,770 | 28,922 |  |  |  |  |  |  |  |  |
| Water Demand Inclusive of Project (b) | 28,946                                  | 28,679 | 28,718 | 28,770 | 28,922 |  |  |  |  |  |  |  |  |
| Supply Shortfall (% demand)           | 0%                                      | 0%     | 0%     | 0%     | 0%     |  |  |  |  |  |  |  |  |



#### Abbreviations:

#### Notes:

- (a) Projected supply is based on the fact that all water sources were characterized as reliable in the Dominguez District 2020 UWMP, and projected groundwater pumping is well below the combined APAs held by the Dominguez District in the West Coast and Central Subbasins. Thus, the available supplies are considered equal to demands under all conditions. See Section 7 of this WSA for additional information.
- (b) Dry year water demand projections for the Dominguez District were updated in 2021, and are presented per Reference 1. As discussed in Section 5 of this WSA, the demands associated with the Proposed Project are within the projected demands and growth included in the Dominguez District 2020 UWMP.
- (c) The table herein does not include non-potable demands which are met by recycled water served by WBMWD in the Dominguez District.

#### References:

1. 2020 Urban Water Management Plan, Dominguez District, prepared by California Water Service, dated June 2021.

<sup>&</sup>quot;AFY" = acre-feet per year

<sup>&</sup>quot;APA" = allowable pumping allocation

<sup>&</sup>quot;UWMP" = Urban Water Management Plan

<sup>&</sup>quot;WBMWD" = West Basin Municipal Water District

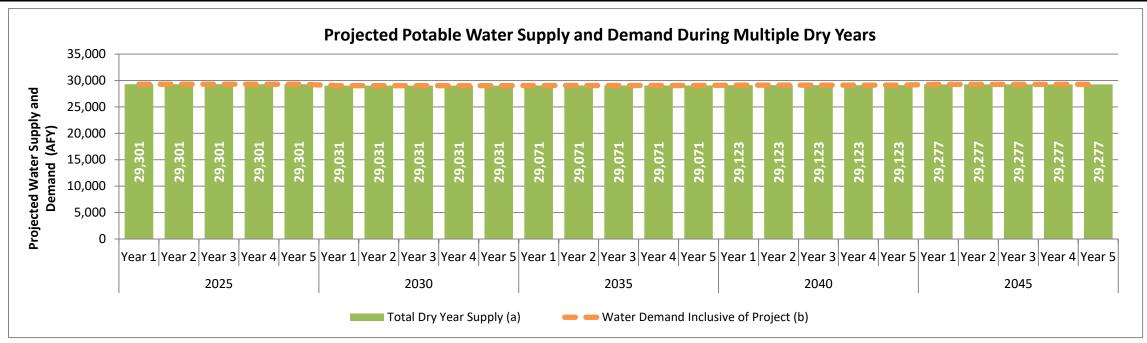
<sup>&</sup>quot;WSA" = Water Supply Assessment

Table 10

Comparison of Multiple Dry Year Water Supply and Demand for the Dominguez District

Imperial Avalon Mixed-Use Development Project, City of Carson, California

|  | Projected Water Supply and Demand (AFY) |        |        |        |        |        |        |        |           |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|--|---|--------|--------|--------|--------|--------|--------|--------|-----------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|  | 2025                                    |        |        |        | 2030   |        |        |        |           | 2035  |        |        |        | 2040   |        |        |        |        | 2045   |        |        |        |        |        |        |
| Supply Source                            | Year 1                                  | Year 2 | Year 3 | Year 4 | Year 5 | Year 1 | Year 2 | Year 3 | Year 4 Ye | ear 5 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Total Dry Year Supply (a)                | 29,301                                  | 29,301 | 29,301 | 29,301 | 29,301 | 29,031 | 29,031 | 29,031 | 29,031 29 | 9,031 | 29,071 | 29,071 | 29,071 | 29,071 | 29,071 | 29,123 | 29,123 | 29,123 | 29,123 | 29,123 | 29,277 | 29,277 | 29,277 | 29,277 | 29,277 |
| Water Demand Inclusive of<br>Project (b) | 29,301                                  | 29,301 | 29,301 | 29,301 | 29,301 | 29,031 | 29,031 | 29,031 | 29,031 29 | 9,031 | 29,071 | 29,071 | 29,071 | 29,071 | 29,071 | 29,123 | 29,123 | 29,123 | 29,123 | 29,123 | 29,277 | 29,277 | 29,277 | 29,277 | 29,277 |
| Supply Shortfall (% demand)              | 0%                                      | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%        | 0%    | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     | 0%     |



#### Abbreviations:

"AFY" = acre-feet per year

"WBMWD" = West Basin Municipal Water District

"WSA" = Water Supply Assessment

"UWMP" = Urban Water Management Plan

#### Notes:

- (a) Projected supply is based on the fact that all water sources were characterized as reliable in the Dominguez District 2020 UWMP, and projected groundwater pumping is well below the combined APAs held by the Dominguez District in the West Coast and Central Subbasins. Thus, the available supplies are considered equal to demands under all conditions. See Section 7 of this WSA for additional information.
- (b) Dry year water demand projections for the Dominguez District were updated in 2021, and are presented per Reference 1. As discussed in Section 5 of this WSA, the demands associated with the Proposed Project are within the projected demands and growth included in the Dominguez District 2020 UWMP.
- (c) The table herein does not include non-potable demands which are met by recycled water served by WBMWD in the Dominguez District.

#### References:

1. 2020 Urban Water Management Plan, Dominguez District, prepared by California Water Service, dated June 2021.

<sup>&</sup>quot;APA" = allowable pumping allocation



#### 7 COMPARISON OF SUPPLY AND DEMAND

#### Water Code Section 10910

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

The Proposed Project was not explicitly (by name) included in the Dominguez District's 2020 UWMP. However, the demand projections account for growth in service connections over the planning horizon, based on historical account growth and population, housing, and employment growth projected by SCAG. As discussed further in Section 5, based on a review of the projected Dominguez District growth assumptions, Cal Water has determined that the Proposed Project is within the growth anticipated within the Dominguez District and thus is accounted for in the 2020 UWMP demand projections.<sup>8</sup>

Pursuant to CWC §10910c(3), this WSA includes an estimate of the projected water supplies available to the Dominguez District under normal, single dry, and multiple dry years, and a discussion of whether those supplies will meet the projected demand associated with the Proposed Project, in addition to the water system's existing and planned future uses. This assessment is parallel to the multiple-dry year supply reliability analysis required for UWMPs under CWC §10635. In 2018, CWC §10635 was revised to require UWMPs to extend this analysis to consider "a drought lasting five consecutive water years." Although CWC §10910c(3) has not yet been updated to require this for WSAs, a five-year drought scenario is also evaluated herein.

**Tables 8, 9,** and **10** provide a comparison of the demands and supplies, inclusive of the Proposed Project, in normal year, single-dry year, and multiple-dry year hydrologic scenarios respectively for the Dominguez District. As discussed above, because all water sources were characterized as reliable in the 2020 UWMP, and the 2020 UWMP projected groundwater pumping well below the Dominguez District's combined APAs, the total projected supplies are assumed to be equal to the projected demands under all conditions (i.e., current and projected, and for normal, single dry, and multiple dry years).

While supply shortfalls are not projected, shortfalls resulting from any cause (e.g., droughts, impacted distribution system infrastructure, regulatory-imposed shortage restrictions, etc.) that could occur in the future would be managed through the implementation of the Dominguez District's Water Shortage Contingency Plan (WSCP). The overall reduction goals in the WSCP are established for six drought stages ranging from 10% to greater than 50% shortfalls. With

<sup>&</sup>lt;sup>8</sup> It should be noted that the UWMP projects increased water use efficiency over this timeframe, and thus a net decrease in SFR and MFR demands despite the net increase in service connections.



implementation of its WSCP during the historic five-year 2013-2017 drought, the Dominguez District achieved a demand reduction of 21% (2017 water demand compared to 2013 water demand; Cal Water, 2021b). As a customer within the Dominguez District, the Proposed Project would be obligated to comply with the demand reduction efforts imposed by Cal Water through implementation of the WSCP in any future water shortage condition. Therefore, the Proposed Project would contribute a proportionate share of the reduction in water demands during dry years.

In 2016, Governor Brown signed Executive Order B-37-16 *Making Water Conservation a California Way of Life* (EO) and subsequently SB 606 and Assembly Bill (AB) 1668 were passed. SB 606/AB 1688 set new requirements for urban water agencies to continue to increase water efficiency beyond the 2020 water use targets developed under the Water Conservation Act of 2009 (Senate Bill X7-7). Beginning in 2023, agencies will be required to report on and comply with "annual water use objectives." The specific standards that will be used to determine an agency's annual water use objectives are currently under development, but are expected to result in continued increases in efficiency for all urban water suppliers in the state. In addition, SB 606/AB 1668 add new requirements related to drought planning and WSCPs, including requirements for agencies to: (1) conduct a drought risk assessments part of their future UWMPs to assess water supply reliability for a period of drought lasting five consecutive water years (CWC §10635(b)), and (2) conduct annual water supply and demand assessments to determine its water supply reliability for the current year and one dry year (CWC §10632(a)). These elements are included in the Dominguez District's 2020 WSCP.

Therefore, based on: (1) the projected reliability of the supply sources available to the Dominguez District, (2) the demonstrated effectiveness of the Dominguez District's WSCP in the case of supply shortages, and (3) the increasing efficiency and drought planning requirements from the State, sufficient water supply is estimated to be available to Cal Water to meet future demands within the Dominguez District service area including those associated with the Proposed Project.



#### 8 CONCLUSIONS

As listed in CWC §10910(c)(4), the primary purpose of this WSA is to evaluate whether sufficient water supply is available to meet future water demands within the water supplier's service area, including those associated with the Proposed Project, during normal and multiple dry hydrologic years for a 20-year time horizon.

As described in Section 4, the water demand of the Proposed Project (i.e., 151 AFY at buildout) has been conservatively estimated. As discussed in Section 5, these demands are within the projected water demand growth that form the basis of Cal Water's updated demand projections in the adopted 2020 UWMP.

As discussed in Section 6, all supply sources to the Dominguez District are considered highly reliable based on the findings of the 2020 UWMP. Further, the Dominguez District is currently projecting groundwater pumping significantly below the combined total of the Dominguez District's two APAs (10,417.45 AFY of adjudicated rights in the West Coast Subbasin and 6,480 AFY in the Central Subbasin). Given the above, sufficient water supply is estimated to be available to Cal Water to meet future demands within the Dominguez District service area from 2020 through 2045 under all hydrologic conditions (i.e., current and projected, and for normal, single dry, and multiple dry years including a five-year drought period).

Therefore, this WSA concludes that sufficient water supply is available to Cal Water to meet future demands anticipated within the Dominguez District service area, including those associated with the Proposed Project.



#### 9 REFERENCES

- Cal Water, 2021a. Data provided by Cal Water via email, dated 22 July 2021.
- Cal Water, 2021b. 2020 Urban Water Management Plan, Dominguez District, prepared by California Water Service, dated June 2021.
- Cal Water, 2021c. 2021-2025 Conservation Master Plan, Dominguez District, prepared by California Water Service, dated April 2021.
- Cal Water, 2021d. PAWS Data, Dominguez District, prepared by California Water Service, dated January 2021.
- Cal Water, 2019. Cal Water WSA Water Factor Tool, developed by M.Cubed, dated 22 October 2019.
- DWR, 2021. WUEdata Water Audit Report Data website, accessed 12 July 2021, (https://wuedata.water.ca.gov/awwa plans).
- DWR, 2015. 2015 Updated Chapter 2.7: Model Water Efficient Landscape Ordinance.
- Imperial Avalon LLC, 2021a. Imperial Avalon Submittal Set, received 11 August 2021.
- Imperial Avalon LLC, 2021b. 21207 South Avalon Boulevard Project Description, received 10 August 2021.
- Imperial Avalon LLC, 2021c. Imperial Avalon Mixed Use Site Plan, received 9 June 2021.
- Torrance, 2021. 2020 Urban Water Management Plan, City of Torrance, prepared by SA Associates, dated June 2021.
- WBMWD, 2021. 2020 Urban Water Management Plan, West Basin Municipal Water District, prepared by Water Systems Consulting, Inc., dated 28 June 2021.
- WRD, 2021. Water Replenishment District of Southern California Engineering Survey and Report, dated March 2021.



# Appendix A

**City of Torrance Water Purchase Agreement** 

## AGREEMENT

THIS AGREEMENT is made and entered into this // day of Av6v97, 1982, by and between the CITY OF TORRANCE, a municipal corporation hereinafter referred to as "City," and the DOMINGUEZ WATER CORPORATION, a public utility hereinafter referred to as "Dominguez."

### WITNESSETH:

WHEREAS, Dominguez has certain water storage and supply facilities within the City of Torrance and serves a portion of the City of Torrance with water; and

WHEREAS, Dominguez Land Company, a limited partnership, as successor in interest to the Dominguez Estate Company, owns a parcel of land of approximately ten (10) acres adjacent to the Torrance City Yard; and

WHEREAS, the said water facilities of Dominguez are located within the ten (10) acre parcel; and

WHEREAS, the City is negotiating with Dominguez Properties for the purchase of about eight (8) acres of land, hereafter called the "subject property"; and

WHEREAS, Dominguez Properties is desirous of protecting the interests of Dominguez Water Corporation, to insure its continued operation, and has required that as a condition of sale of the approximately 8 acres of land, the City take title to the entire approximately 10 acres, then convey fee title to a parcel of approximately 2 acres to Dominguez Water Corporation, as may be mutually agreed upon between City and Dominguez Water Corporation.

NOW, THEREFORE, the parties mutually agree as follows:

### ARTICLE I

## PURPOSE OF AGREEMENT

A. This Agreement is made and entered into for the purpose of defining the rights, liabilities and duties of the parties in the event City should be successful in negotiating the purchase of about

Triplicate Original

- eight (8) acres of the land from Dominguez Land Company, a limited partnership, upon which is now located certain of Dominguez's water facilities.
- B. It is understood and agreed by the parties hereto that this Agreement is conditioned upon, and is contingent upon, the negotiation of the said sale of land Agreement between City and Dominguez Land Company. In the event the City and Dominguez Land Company do not enter into an Agreement for the said sale and purchase of land, this Agreement shall be null and void.

#### ARTICLE II

# CONTINUATION AND ENHANCEMENT OF WATER SYSTEM

In view of the fact that even in the event of the said sale of land, Dominguez intends to continue serving water to the same areas of the City of Torrance, City and Dominguez agree to the following steps to enhance and effectuate that water service capability:

- 1) City agrees to construct, at no expense to Dominguez, a water main of not less than twenty-four (24) inches diameter from City's 24-inch water main lying within Crenshaw Boulevard at Del Amo Boulevard, westerly to a point near the westerly edge of Maple Street at Del Amo Boulevard, which location shall be mutually agreed upon by City and Dominguez.
- 2) Dominguez shall construct or provide for the construction of, at no expense to City, a water main of not less than twenty-four (24) inches inside diameter from its present water supply facilities within the subject property, northerly along the easterly edge of the subject property, to a point near the southerly edge of Del Amo Boulevard, thence easterly to join with the 24-inch water main to be constructed by City pursuant to paragraph 1) above.
- 3) It is understood that Dominguez presently enjoys certain easements and rights-of-way upon and across the subject property both for pipelines and for surface ingress and egress to its

water facilities, and will cause those easements and rightsof way to be reserved in any deeds from Dominguez Properties to the City of Torrance upon sale of the subject property to City, provided such reserved easements or rights-of-way shall be located in such a manner as not to interfere with the transit facilities to be built by City on the subject property. In the event City's proposed development causes Dominguez's pipelines to be less than three feet in depth or more than six feet in depth, as measured from the top of the pipeline to the finished grade or surface, or causes Dominguez's pipelines to be moved horizontally, the relocation of these pipelines shall be done by Dominguez at the expense of City. Further, Dominguez presently enjoys the benefits of easements and rights-of-way across other property, including that of City, and Dominguez will retain all such rights notwithstanding the execution of this Agreement or the sale of the subject property. In addition, City will provide or will assist Dominguez in obtaining access for pipelines and vehicles both from Del Amo Boulevard southward, and from Madrona Avenue eastward to the Dominguez retained site for installation, service and access to Dominguez pipelines, tanks and equipment.

- 4) Immediately upon conveyance of the approximately 10 acres of land from Dominguez Properties to the City, City shall prepare a Parcel Map pursuant to the requirements of the Subdivision Map Act. Said Parcel Map shall divide the approximately 10 acres into two parcels. One parcel shall be approximately 8 acres in size and shall be the Subject Property. The second parcel shall be approximately two acres in size and shall be the parcel of land on which the retained Dominguez Water Corporation facilities shall be located. City shall then convey a fee title to Dominguez Water Corporation, or its designee, of that approximately 2-acre parcel, in form of deed as attached hereto as Exhibit "A."
- 5) By execution of this Agreement, Dominguez agrees that, effective immediately upon conveyance of the said approximately 2-acre parcel as provided in paragraph 4) above from City to Dominguez, and as a condition concurrent with said conveyance,

Dominguez give: p and surrenders all rigl, it may have in the subject property by virtue of the provisions of that certain lease between Dominguez Properties, a California limited partnership, and Dominguez Water Corporation, a California corporation, dated November 3, 1970, recorded August 20, 1971, as Document No. 3351 with the County Recorder of the County of Los Angeles, California.

- 6) Upon sale of the subject property by Dominguez Properties to City and the receipt of necessary Public Utilities Commission approvals, Dominguez shall commence construction and carry through in a timely manner to completion at no cost to City a water storage tank on the parcel of land retained by Dominguez. At a time to be determined by Dominguez and City, but in no event later than January 1, 1983, City may demolish the presently existing water storage reservoir located on the subject property and may construct the transit facilities; provided, however, that demolition of the said reservoir shall not occur unless either the water storage tank provided in this paragraph has been completed or the interconnecting pipelines provided for in paragraphs 1 and 2 above have been completed and are in operation.
- 7) At a place to be agreed upon between City and Dominguez, there shall be installed in the pipeline described in paragraphs 1 and 2 above, a manifold system with one or more water flow meters, for the purpose of measuring the amount of water, if any, delivered from time to time by City to Dominguez. As water supplier, City shall acquire the materials for the metering facility and shall perform the installation. As receiver of the water, Dominguez shall bear the costs for such acquisition of materials and installation. In the event the parties agree to locate the metering system within the land of Dominguez, or upon an easement which is the property of Dominguez, Dominguez shall execute suitable agreements with City so as to provide ready access to the metering facilities for service repair or replacement as necessary.

#### ARTICLE III

## SALE OF WATER TO DOMINGUEZ

- A. Beginning at the time of demolition of the reservoir, as provided in Article II above, City shall supply, upon request of Dominguez, operational water for all Dominguez water customers within the City of Torrance, in varying amounts up to and including the total operational water demand of Dominguez.
- B. Dominguez shall pay to City monthly a price for such water as may be delivered pursuant to this Article III which is equal to one hundred and one percent (101%) of the price of water charged City by the Metropolitan Water District of Southern California in accordance with its schedule referred to as Non-Interruptible Domestic water service, as it may vary from time to time. In the event the Metropolitan Water District changes its rate structure or fee schedule nomenclature, the rate to be paid by Dominguez shall be one hundred and one percent (101%) of the rate paid by City to the Metropolitan Water District to provide domestic water.
- C. In addition to the charge provided in paragraph B above, Dominguez shall pay to City, monthly, a readiness-to-serve charge of One Hundred Pifty Dollars (\$150.00). Said readiness-to-serve charge shall be reviewed in June of each year, beginning June 1984, and the charge shall be adjusted an amount corresponding to the change in the Producer's Price Index, All Commodities, prepared by the United States Bureau of Labor Statistics, Department of Labor, for the period measured from the beginning to the end of the last previous calendar year. In the event said Bureau shall discontinue the preparation of the Producer's Price Index, All Commodities, and if no transposition table is prepared by the Bureau, then the fees shall be increased or decreased on the basis of any other nationally recognized indicator of increases or decreases in the consumer product price as may be agreed between the parties.

and effect. This Agreement provides for the construction, remodeling or modification of Dominguez's water facilities and is in lieu of any relocation payment provided for in Chapter 16, Division 7, Title 1, of the Government Code, commencing as Section 7260.

IN WITNESS WHEREOF, the parties have executed this Agreement on the date first written above.

> CITY OF TORRANCE, a municipal corporation,

ATTEST:

APPROVED AS TO FORM:

STANLEY E. REMELMEYER

City AtAorney

LIAM G.

Deputy City Attorney

DOMINGUEZ WATER CORPORATION, a public utility

PRESIDENT

SECRETARY