Appendix H

Water Supply Assessment

PADRE DAM MUNICIPAL WATER DISTRICT

WATER SUPPLY ASSESSMENT

City of Santee Town Center Specific Plan Amendment

Prepared by:
HDR Engineering, Inc

July 2024

Padre Dam Municipal Water District
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Town Center Specific Plan

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Executive Summary

The Padre Dam Municipal Water District (Padre Dam MWD) solicited the professional engineering services of HDR Engineering, Inc. to prepare this Water Supply Assessment (WSA) at the request of the City of Santee (City) for the Town Center Specific Plan Amendment (TCSP) project, hereafter referred to as the Project. The Project is receiving a comprehensive update including updates to the Arts and Entertainment Neighborhood, and development of concept plans for four strategic Housing Element Sites. This WSA will document supply availability and potential impacts on water reliability.

Project Overview and Water Use

The Project area is a mixed use village consisting of 79 acres located in the central portion of the City of Santee's Town Center Specific Plan. The Project is within the overall TCSP area that includes approximately 608 acres across several land uses and proposes a maximum anticipated development yield on certain properties:

- Arts and Entertainment (2,399,474 SF of non-residential buildings)
- Four Housing Element Sites (1,480 dwelling units)

As shown on the Regional Map (Appendix A), the Project is bordered by Mast Boulevard to the north, State Route 67 to the east, Santee Lakes to the west, and State Route 52 to the south. The Project is currently located within the jurisdictions of Padre Dam MWD and the San Diego County Water Authority (Water Authority). The Project will be supplied water by Padre Dam MWD, which serves the City of Santee, and currently imports all of its potable water from the Water Authority primarily through a connection at Mission Gorge Road near Mission Trails Park and a connection located at Lake Jennings Treatment Plant. A third connection point is located south of Lake Jennings.

With the Project, the expected potable water demand is 745,695 gallons per day (gpd) or 835.3 acre feet per year (AFY), which is a 37,201 gpd or 42 AFY increase over the water demand for the Project included in the Padre Dam MWD 2020 Urban Water Management Plan (UWMP) (2020 UWMP). This increase accounts for changes the City of Santee made to zoning within the Specific Plan as part of their 2022 Housing Element update.

Planned Imported Water Supplies from the Water Authority and Padre Dam MWD

The San Diego County Water Authority (Water Authority) and Padre Dam MWD have an established process that ensures supplies are being planned to meet future growth. Any annexations and revisions to established land use plans are captured in the San Diego Association of Governments (SANDAG) updated forecasts for land use planning, demographics, and economic projections. SANDAG serves as the regional, intergovernmental planning agency that develops and provides forecast information. The Water Authority and Padre Dam MWD update their demand forecasts and supply needs based on the most recent SANDAG forecast approximately every five years to coincide with preparation of their UWMPs. Prior to the next forecast update, local jurisdictions may require water supply assessment and/or verification reports for proposed land developments that are not within the Padre Dam MWD, nor Water Authority, jurisdictions (i.e. pending or proposed annexations) or that have revised land use plans than what is reflected in the existing growth forecasts. The Padre Dam MWD and Water Authority next demand forecast and supply requirements and associated planning documents will capture any increase or decrease in demands and required supplies as a result of annexations or revised land use planning decisions such as the proposed revisions to the land use as represented in the Project. This WSA updated information will be incorporated within and become a permanent part of the water resources planning processes and documents for Padre Dam MWD and the Water Authority pending approval of the Project.

The California Urban Water Management Planning Act (Act), which is included in the California Water Code, requires all urban water suppliers within the state to prepare an UWMP and update it every five years. The purpose and importance of the UWMP has evolved since it was first required 25 years ago. State agencies and the public frequently use the document to determine if agencies are conducting adequate planning to reliably meet future demands. As such, UWMPs serve as an important element in documenting supply availability for the purpose of compliance with state laws, Senate Bills 610 and 221, linking water supply sufficiency to large land-use development approval. Agencies must also have a UWMP prepared, pursuant to the Act, in order to be eligible for state funding and drought assistance.

The Water Authority Act, Section 5 subdivision 11, states that the Water Authority "as far as practicable, shall provide each of its member agencies with adequate supplies of water to meet their expanding and increasing needs."

As part of the preparation of a written water supply assessment report, an agency's shortage contingency analysis should be considered in determining sufficiency of supply. Section 11 of the Water Authority's 2020 UWMP contains a detailed shortage contingency analysis that addresses a regional catastrophic shortage situation and drought management. The analysis demonstrates that the Water Authority and its member agencies, through the Emergency Response Plan, Emergency Storage Project, and Drought Management Plan (DMP) are taking actions to prepare for and appropriately handle an interruption of water supplies. The DMP, adopted in May 2006, provides the Water Authority and its member agencies with a series of potential actions to take when faced with a shortage of imported water supplies from

Metropolitan Water District of Southern California (Metropolitan WD) due to prolonged drought or other supply shortfall conditions. The actions will help the region avoid or minimize the impacts of shortages and ensure an equitable allocation of supplies.

Findings

The WSA identifies and describes the processes by which water demand projections for the proposed project will be fully included in the UMWP water demand and supply forecasts and other water resources planning documents of the Water Authority and Padre Dam MWD. Water supplies necessary to serve the demands of the proposed project, along with existing and other projected future users, as well as the actions necessary and status to develop these supplies, have been identified in the Project WSA and will be included in the future water supply planning documents of the Water Authority and Padre Dam MWD. The potable water demand projections and supply requirements for previously adopted land uses are currently within the UWMP and other water resource planning documents of the Padre Dam MWD; however, portions of the Project were updated as part of the City of Santee 2022 Housing Element subsequent to the adoption of the Padre Dam MWD 2020 UWMP. The incremental water demand for the Project as a result of the TCSP Amendment will be accounted for under the Water Authority 2020 UWMP Accelerated Forecasted Growth (AFG) component. The purpose of the Accelerated Forecasted Growth component of the demand forecast is to estimate, on a regional basis, additional demand associated with proposed projects not yet included in local jurisdictions' general plans and to plan for sufficient regional supplies to reliably meet the water demand of those projects. The Water Authority has available portions of the reserved Accelerated Forecasted Growth component of its planned water supply, which is incorporated into the Water Authority's demand forecast at a regional level and thus available to all member agencies, to meet additional demand increments not previously identified.

This WSA includes, among other information, an identification of existing water supply entitlements, water rights, water service contracts, water supply projects, or agreements relevant to the identified water supply needs for the proposed Project. The WSA demonstrates and documents that sufficient water supplies are planned for and are intended to be available over a 20-year planning horizon, under normal conditions and in single and multiple dry years to meet the projected demand of the proposed project and the existing and other planned development projects to be served by the Padre Dam MWD.

Accordingly, after approval of the updated WSA for the Project by the Padre Dam MWD Board of Directors (Board), the WSA may be used to comply with the requirements of the legislation enacted by Senate Bills 610 and 221 as follows:

1. Senate Bill 610 Water Supply Assessment: The Padre Dam MWD Board approved WSA may be incorporated into the California Environmental Quality Act (CEQA) Environmental Impact Report (EIR) compliance process for the Project as a water supply assessment report consistent with the requirements of the legislation enacted by SB 610. The City of Santee as lead agency under CEQA for the Project EIR may cite

the approved WSA as evidence that a sufficient water supply is planned for and is intended to be made available to serve the Project.

2. Senate Bill 221 Water Supply Verification: The Padre Dam MWD Board approved WSA may be incorporated into the City of Santee's Tentative Map approval process for the Project as a water supply verification report, consistent with the requirements of the legislation enacted by SB 221. The City of Santee, within their process of approving the Project's Tentative Map, may cite the approved WSA as verification of intended sufficient water supply to serve the Project.

Section 1 - Purpose

Water Code section 10910 et seq., commonly referred to as Senate Bill 610 (SB 610), requires the preparation of a WSA for certain new development projects. (See Water Code §§ 10910(a), 10912.) As stated in SB 610, the purpose of WSA is to determine whether the "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." Water Code section 10910 states that a "project," as defined in Water Code section 10912 and subject to the California Environmental Quality Act (CEQA), requires the preparation of WSA. Under Water Code Section 10912(a)(7), the definition of a "project" includes one "…that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project." Because the Project exceeds the minimum threshold of 500 dwelling units, a WSA is required pursuant to Water Code section 10910(a).

The City of Santee has determined that the Project is subject to CEQA. As the lead agency under CEQA, the City of Santee has identified Padre Dam MWD as the public water system that will serve the Project pursuant to Water Code section 10910(b). The City of Santee has requested that Padre Dam MWD prepare a WSA for the Project in compliance with SB 610.

The Urban Water Management Planning Act, Water Code section 10610 et seq., requires urban water suppliers in California providing water for municipal purposes directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually to prepare and adopt an UWMP at least once every 5 years. Among other things, the UWMP evaluates current and future water supplies and demands within a supplier's service area during normal, single-dry, and multiple-dry year periods over the next 20-year planning horizon and beyond, water supply reliability, water conservation measures, and water shortage contingency planning. Cities, counties, water districts, property owners, and developers utilize the UWMP for their long-range water supply planning, including the preparation of WSAs.

A UWMP is submitted to the California Department of Water Resources (DWR) for review to ensure requirements in the California Water Code have been addressed and acknowledged.

The Padre Dam MWD's 2020 UWMP was adopted June 2021 in accordance with the requirements of the Urban Water Management Planning Act. Notices of public hearing were submitted to DWR and cities and counties within the Padre Dam MWD's service area, including the City of Santee, prior to the adoption of the UWMP.

The purpose of this WSA is to evaluate water supplies that are, or will be, available during normal, single dry year, and multiple dry years, during a 20-year projection, and determine if the available water supplies will meet the existing, projected, and future water demands served by the Padre Dam MWD, including the proposed Project. This WSA evaluates the availability of sufficient water supplies for the Project and does not constitute approval of the Project nor does it create a right or entitlement to water service or any specific level of water service. In addition, this WSA identifies existing water supply entitlements, water rights, water service contracts, and agreements relevant to serving the Project.

HDR prepared this WSA for Padre Dam MWD in compliance with SB 610.

Section 2 - Findings

Padre Dam MWD prepared a 2020 Comprehensive Facilities Master Plan (Master Plan) and Program Environmental Impact Report (PEIR) both of which were approved by the Padre Dam MWD Board in June 2022. The Master Plan developed a capital improvement plan to guide the Padre Dam MWD in the planning, development, and budgeting for water and recycled water system improvements that would be necessary to meet system performance criteria and support growth within the Padre Dam MWD through 2045 (Carollo 2020). The Master Plan included the Town Center Specific Plan (Specific Plan) with a potable water demand of 708,494 gpd, or 793.7 AFY, but was created prior to the revisions to the Town Center Specific Plan (2023). The Padre Dam MWD's 2020 UWMP projected demands for potable and non-potable water (2020 UWMP Table 4-2) were based on the Master Plan and accounted for the potable demand of 793.7 AFY initially associated with the Project.

As described previously, the scope of the project has changed. The updated Project has a water demand of 835.3 AFY (an increase of 41.7 AFY) Because the scope of the project has changed, the 2020 UWMP does not consider the entirety of the Project, an SB 610 assessment is required under Water Code section 10910(c)(3). As such, this WSA will determine whether the Project can be supplied by the Padre Dam MWD's total projected available water supplies under the normal, single dry year, and multiple dry water year scenarios, in addition to the Padre Dam MWD's existing and planned future uses.

This WSA evaluates the demand associated with the Project and concludes that the demand can be satisfied through the amount associated with the Project in the 2020 UWMP along with additional water supplied by the Water Authority. Specifically, the Water Authority has confirmed that it can meet the Project demand not considered in the 2020 UWMP through the use of the Accelerated Forecasted Growth component of the Water Authority 2020 UWMP.

Padre Dam MWD's 2020 UWMP projects a total water demand by 2045 of 17,176 AFY (15,944 AFY potable and 1,232 AFY recycled). The Project water demand of 835.3 AFY accounts for approximately 4.8% of the Padre Dam MWD's total water demand.

Table 1
Retail: Total Gross Water Use (Potable and Non-Potable)[1] (AFY)

	2020	2025	2030	2035	2040	2045
Potable Water, Raw, Other Non-potable[2]	9,588	12,442	13,586	14,623	15,473	15,944
Recycled Water Demand[3]	1,750	2,202	1,232	1,232	1,232	1,232
TOTAL WATER USE	**11,338**	**14,644**	**14,818**	**15,855**	**16,705**	**17,176**

(1) Table 4-3 in Padre Dam Municipal Water District 2020 UWMP.

(2) From Table 4-1 and Table 4-2 in the Padre Dam Municipal Water District 2020 UWMP.

(3) Recycled demand is the existing demand currently met by recycled water, as represented in Table 6-4 of the Padre Dam Municipal Water District 2020 UWMP. The recycled water system is not anticipated to grow, and the demands are expected to maintain the same from 2025 and beyond.

Source: Padre Dam Municipal Water District 2020 UWMP.

Available Potable Water Supplies

Padre Dam MWD imports 100 percent of its potable water supply from the Water Authority. This potable water supply is imported from the California State Water Project (SWP) (North Bay, South Bay, and California Aqueducts) and the Colorado River (Los Angeles and Colorado River Aqueducts) by the Metropolitan WD.

In addition to water imported through Metropolitan WD, the Water Authority signed and amended an agreement (Water Authority-IID Water Conservation and Transfer Agreement) with the Imperial Irrigation District (IID) for long-term transfer of conserved Colorado River water to the County. The volume of transferred water is based on the transfer agreement with a fixed volume of 200,000 AF starting in 2023. The term of the agreement is 45 years with a provision to extend for an additional 30 years. As part of the QSA, the Water Authority also contracted for 77,700 AFY of conserved water that resulted by lining portions of the All-American Canal (AAC) and Coachella Canal (CC), which reduced water loss.

In 2012, the Water Authority also entered into a formal Water Purchase Agreement with Poseidon Water to purchase desalinated ocean water at the Carlsbad Desalination Plant. As of May 2019, the Carlsbad Desalination plant received approval to increase capacity from 50 MGD to 60 MGD, an increase of 10 MGD or 11,000 AFY of additional potable supply not previously accounted for in the Water Authority 2020 UWMP. With this increase, the Water Authority will receive 61,600 AFY of water from the Carlsbad Desalination Plant which is a 10% increase from its original entitlement. The Water Authority 2020 UWMP projects that increase the Carlsbad Desalination Plant capacity could be placed into service prior to 2025. (Section 4.5.)

These sources will enhance the Water Authority's supply diversification during the single and multiple dry years where a deficit was previously anticipated for a single dry year beginning in 2035 and in multiple dry years beginning in 2028 in the Water Authority 2020 UWMP. Additionally, according to the Water Authority's 2018 Annual Report, the Water Authority has lowered its long-term regional water use projections due to sustained water use efficiency throughout the region, resulting in an interim demand forecast reduction of approximately 60,000 acre-feet for the entire 2025-2045 planning horizon in comparison with 2020 UWMP. (Water Authority 2018 Annual Report, Diversification & Conservation, Demand Forecast Declines Due to Regional Efficiencies.) Due to Accelerated Forecasted Growth availability, the Water Authority and thus Padre Dam MWD, can supply the demand associated with the Project. The water demand for most of the Project was accounted for in both the 2020 UWMP and the Water Authority UWMP, and the Water Authority has confirmed that it can meet the additional 41.81 AFY associated with the Project through the use of Accelerated Forecasted Growth. (See request by Padre Dam MWD and the Water Authority's response attached as Appendix A.)

Although not a necessary supply source to serve the Project, Padre Dam MWD is planning to further enhance its potable water supply and reliability by implementing the ECAWP to reduce the area's reliance on imported water from the Water Authority. Implementation of the ECAWP, discussed in Section 7.5 of the 2020 UWMP, will potentially offset a portion of imported supplies by the end of 2025. Sections 5, 6, and 7 of this WSA demonstrate that Padre Dam MWD has sufficient water capacity to supply the Project estimated total water demand.

This WSA confirms that the projected water demand for the Project falls within the water demand forecasts and available water supplies as described in the UWMPs prepared by (1) Metropolitan WD, (2) the Water Authority, which includes the Padre Dam MWD projected demands from its 2020 UWMP as well as forecasted growth in residential housing development, and (3) Padre Dam MWD; provided mitigation measures are employed in the dry years, and with Accelerated Forecasted Growth availability that has been specifically allocated to the Project to supply its previously unaccounted-for demand. Water supplies necessary to serve the Project and existing and future water demands within the Padre Dam MWD's service area, as well as the actions necessary to develop or supplement supplies, have been identified in the water supply planning documents of the Padre Dam MWD, the Water Authority, and Metropolitan WD as referenced herein.

Section 3 - Project Description

Project Location

The Project site consists of approximately 79 acres in the central portion of the City of Santee (City) in eastern San Diego County. The City is about 18 miles east of downtown San Diego, it is bordered on the west and southwest by the City of San Diego, on the south by the City of El Cajon, on the north by San Diego County lands and on the east by Lakeside. The Town Center Specific Plan area is bounded by Mission Gorge Road and 3rd Street on the south side,

by Magnolia Avenue and Cottonwood Avenue on the east, and by Mast Boulevard on the north. Additionally, the Project includes areas west of Cuyamaca Street.

TCSP Project

The Project is within the TCSP area that includes 79 acres of open space, parks, residential areas, offices, and commercial uses. The TCSP area is made up of different land uses including an Arts & Entertainment Overlay District and RiverView Office Park Area. The Arts and Entertainment Neighborhood incorporates various land use designations that support the use of art and culture, entertainment, commercial recreation, visitor, and civic uses. The RiverView Office Park Area provides for the development of a corporate office park and ancillary uses.

The Project includes updates to the Arts and Entertainment neighborhood and development of concept plans for four strategic Housing Element sites. The updates would allow development to occur in the Town Center Specific Plan area. While the development potentials are consistent with adopted plans and zoning approved in October 2022, some of the development was not anticipated in the 2020 UWMP. The City requested the following WSA in accordance with the California Public Resources Code section 15155 and Water Code sections 10910-10915.

The Project looks at a maximum yield for the buildout of Sites 15, 16A, 16B, 17, 18, 19, 20A, and 20B due to zoning changes made within the housing element update. The amended zoning designations and Mixed Use Overlay are compatible with the new land uses and the goal of the TCSP, which is to further the balance of development with conservation while creating opportunities for people to live, work, and play. The change of land designation allows the City of Santee to 1) provide a variety of housing types and sizes and a mixture of ownership and rental housing (Residential Goal) and 2) locates residential sites close to services, public transit and employment centers. These changes will also further the goal of the General Plan, to promote development of a well-balanced and functional mix of residential, commercial, open space, recreation, and civic uses that will create and maintain a high quality environment.

In addition, the TCSP is to be amended to add a density range of 30 to 36 dwelling units per gross acre to the R-30 land use designation, and a density range of 22 to 30 dwelling units per gross acre to the R-22 land use designation applicable to the Town Center properties along Park Avenue. This will allow greater flexibility for multifamily residential development and allow for consistency between the TCSP, Zoning Ordinance, and General Plan.

The proposed development concept for the Project is planned as a combination of land uses as shown in Table 2 which were updated with the 2022 housing element update.

Table 2
Project Sites List

Site Map ID#	APN	Address/Description	Lot Size (Acres)	Former Zoning	Updated Zoning
15	381-040-36	Walmart	5.26	TC-C	TC-R-22
16A	381-050-82	Civic Center Site I	11.11	TC-O/C	TC-R-30
16B	381-05-082	Civic Center Site II	8.61	TC-O/C	TC-R-14
17	381-051-18	Cottonwood Ave	22.15	TC-R-30	TC-R-14
18	381-051-17	Cottonwood Ave	11.71	TC-R-30	TC-R-14
19	3810-32-07 & -08	Park Center Dr	2.35	TC-R-22	TC-R-14
20A	381-050-81	9200 Magnolia Ave	7.75	TC-O/I	TC-R-22
20B	381-050-81	9200 Magnolia Ave	10.00	TC-O/I	TC-R-30
TOTAL			**78.94**		

Water Demand

Following the adoption of the 2020 UWMP, the City of Santee updated its housing element which modified the land use within the Specific Plan area. This WSA utilizes information contained within the Specific Plan relating to projected population, number of residential units, and unit densities, coupled with the Padre Dam MWD water planning criteria, to determine the projected total water demand for the Project.

The Project reflects the rezoning from the 2022 Housing Element Update of 8 different lots with different demands, acreages, and general plan land uses, the breakdown of the zoning changes can be found in Table 2. The Specific Plan water demand is based on land use acreage and the corresponding water demand factor developed in the Padre Dam MWD's 2020 Master Plan. Table 3 illustrates the revised water demand incorporating land use revisions from the Housing Element update. The total demand increases by 37,201 gpd, for a total Project demand of 745,695 gpd or 835.3 AFY.

Table 3
Amended Project Water Demand

Land Use	Acreage (ac)	Water Demand Factor (gpd/ac) (1)	Total Demand (gpd)
Commercial	312.01	1,500	468,015
High Residential	95.37	1,900	181,203
Medium Residential	0.85	1,200	1,020
None	0.55	0	0
Open Space	185.47	500	92,735
Public Land and Facilities	13.61	200	2,722
TOTAL	**607.86**		**745,695**

(1) Water demand factors are based on recommendations for land use categories in the Padre Dam MWD 2020 Master Plan

The 2020 UWMP projected potable water demand for the Project was 793.7 AFY. The revised projected water demand for the TCSP area is 835.3 AFY, which is more than the 793.7 AFY demand previously included within the 2020 UWMP.

Use of recycled water for the Project is available; however, the current planning stage of the Project does not identify specific areas for connection to the Padre Dam MWD recycled water system. For the purposes of this WSA, the Project water demands are assumed to be served by potable water supplies.

Section 4 – Padre Dam Municipal Water District

Padre Dam MWD is a municipal water district formed in 1976 when voters approved a merger with the Santee County Water District (Santee County WD), which was formed in 1956, with Rio San Diego Municipal Water District (Rio San Diego Municipal WD), which was formed in 1955. When voters approved the formation of the Rio San Diego Municipal WD it secure an entitlement to imported water from the Colorado River and provide water to the previously underdeveloped valley. The Padre Dam MWD is governed by an elected Board of Directors.

The Santee County WD was formed in 1956 under the County Water District Law of the State of California Water Code. In July 1969, the Board of Directors of Santee County WD and Rio San Diego Municipal WD combined management and engineering functions. On December 31, 1976 Rio San Diego Municipal WD took over Santee County WD and changed its name to Padre Dam MWD.

Padre Dam MWD provides water, wastewater, recycled water and park and recreation services to the residents of Santee, El Cajon, Lakeside, Flinn Springs, Harbison Canyon, Blossom Valley, Alpine, Dehesa and Crest. Padre Dam MWD imports 100% of their drinking

water supply from the Water Authority and treat two million gallons per day of wastewater at the Ray Stoyer Water Recycling Facility.

Padre Dam MWD began recycling water in the late 1950s. The Ray Stoyer Recycling Facility received worldwide attention and was expanded to treat 2 MGD to provide water for Santee Lakes and for non-potable reuse to the community. Padre Dam is currently working on the East County Advanced Water Purification Project in conjunction with Helix Water District, the City of El Cajon and the County of San Diego. This project has the potential to produce up to 30%of East County's drinking water. This water reuse opportunity would provide a supply of safe, reliable, local, and environmentally-friendly supply of drinking water within East County San Diego.

The potable water demands served by the Padre Dam MWD are residential, commercial, industrial, institutional, and irrigation. The total demand in 2020 was approximately 9,588 AFY. The per capita water demand was 93 gallons per capita per day in 2020, which is within the Water Conservation Bill of 2009 Senate Bill 7 as part of the Seventh Extraordinary Session (SBX 7-7) target of 142 gpcd by 2020 for the Padre Dam MWD by using hydraulic Region Target.

The development and/or acquisition of potential groundwater, recycled water market expansion, and seawater desalination supplies by Padre Dam MWD have evolved and are planned to occur in response to the regional water supply issues. These water supply projects are in addition to those identified as sustainable supplies in the current Water Authority and Metropolitan WD UWMP, IRP, Master Plans, and other planning documents. These new additional water supply projects are not currently developed and are in various stages of the planning process. These local and regional water supply projects will allow for less reliance upon imported water and are considered a new water supply resource for the Padre Dam MWD.

The supply forecasts contained within this WSA do consider development and/or acquisition of potential groundwater, recycled water market expansion, and seawater desalination supplies by Padre Dam MWD.

4.1 Overview of Potable System Facilities

Potable water supplied by Padre Dam MWD is 100 percent imported from the Water Authority. The water sources from the Water Authority include the Colorado River, Bay-Delta, seawater desalination, and some local supplies. Drinking water supplied by Padre Dam MWD continues to meet or exceeded all public health requirements enforced by the State Water Resources Control Board Division of Drinking Water and the United States Environmental Protection Agency.

Padre Dam MWD's water system primarily consists of water storage facilities with a combined storage capacity of approximately 107.23 MG and 389 miles of transmission and distribution water mains. Pipelines within the Padre Dam MWD's service area include a combination of asbestos cement pipe (ACP), polyvinyl chloride (PVC) and concrete cylinder

pipe (CCP) with approximately 15 miles of pipeline dating back prior to 1950. Booster stations are distributed throughout Padre Dam MWD to pump water from lower pressure zones to higher pressure zones. The use of pressure reducing stations provide the ability to transfer water from higher to lower pressure zones to serve customers located in different pressure zones.

The availability of sufficient potable water supplies and plans for acquiring additional potable water supplies to serve existing and future demands of the Padre Dam MWD is founded upon the preceding discussions regarding Metropolitan WD's and the Water Authority's water supply resources and water supplies to be acquired by the Padre Dam MWD. Table 4 shows the projected water supply through 2045 with the addition of the AFG water supply. Table 2-8 of the Water Authority 2020 UWMP breaks down the projected water demand by member agency.

Table 4 – Retail: Water Supplies – Projected

		Projected Water Supply				
Water Supply	**Additional Detail on Water Supply**	**2025**	**2030**	2035	2040	2045
		Reasonably Available Volume				
Purchased or Imported Water	**In-District**	6,054	7,198	8,235	9,085	9,556
Purchased or Imported Water	**Outside of District**	2,388	2,388	2,388	2,388	2,388
Recycled Water		1,232	1,232	1,232	1,232	1,232
Potable Reuse	**East County AWP**	4,000	4,000	4,000	4,000	4,000
Water Authority AFG Increment		42	42	42	42	42
	Total	**13,716**	**14,860**	**15,897**	**16,747**	**17,218**

Source: Padre Dam MWD 2020 Urban Water Management Plan – Table 6-9 with added AFG water.

The availability of sufficient imported and regional potable water supplies to serve existing and planned uses within Padre Dam MWD is demonstrated in the below discussion on Metropolitan WD and the Water Authority's water supply reliability. The County Water Authority Act, Section 5 subdivision 11, states that the Water Authority "as far as practicable, shall provide each of its member agencies with adequate supplies of water to meet their expanding and increasing needs." The Water Authority provides between 75 to 95 percent of the total supplies used by its 24 member agencies, depending on local weather and supply conditions.

The potable water infrastructure has been designed to facilitate and accommodate future water system expansion to serve projects and/or demands identified within the Padre Dam MWD Master Plan, UWMP, and other planning documents. The Project will be serviced by the construction of new water main connections to existing transmission mains located in North County San Diego. Details of the method of connection and proposed onsite water distribution system and new facilities for the Project are provided in Padre Dam MWD's 2020 UWMP.

4.2 Overview of Recycled System Facilities

Padre Dam MWD provides wastewater collection and treatment services to the City of Santee, portions of the County, and a small portion of El Cajon. Padre Dam MWD's service area provides potable water to a population of 72,600 as of 2020. There are also areas of wastewater collection system that are within the Helix and Lakeside Water District service areas that are not served by the Padre Dam MWD.

The majority of the collected wastewater flows to the Padre Dam MWD's Influent Pump Station. From there, up to 1,856 AFY of wastewater is pumped to the Padre Dam MWD's Ray Stoyer WRF; the remaining flow is pumped to the City of San Diego's Metropolitan Wastewater System where it receives advanced primary treatment at the Point Loma Wastewater Treatment Plant.

The County's Lakeside interceptor runs through Padre Dam MWD's sewer service area. The Padre Dam MWD has the capability to divert some County flows into Padre Dam MWD's collection system, as well as to divert some of Padre Dam MWD's flows to the County interceptor. The County flows are diverted to Padre Dam MWD during low flow periods of the night when Padre Dam MWD's sewer flows drop below the capacity of the WRF. The diversions equalize influent to the WRF, thereby protecting the biological treatment processes as well as allowing the plant to meet night-time demand.

Recycled Water System Facilities

Padre Dam MWD has and continues to construct recycled water storage, pumping, transmission, and distribution facilities to meet projected recycled water market demands. For nearly 20 years, millions of dollars of capital improvements have been constructed. The supply link consisting of a transmission main, storage reservoir, and a pump station to receive and transport the recycled water from the City of San Diego's SBWRP are complete and recycled water deliveries began on May 18, 2007.

Cost and Financing

The capital improvement costs associated with the recycled water supply and distribution systems are financed through Padre Dam MWD water meter capacity fee and user rate structures. Padre Dam MWD recycled water sales revenue, along with Metropolitan WD and the Water Authority's recycled water sales incentive programs are used to help offset the costs for the wholesale purchase and production of the recycled water supply, the operating and maintenance expenses, and the capital costs of the recycled water system facilities.

4.3 Potential Groundwater Supplies

Padre Dam MWD pumps a small amount of groundwater from the Santee Basin using a District-owned well that supplements the recycled water system. Since the well is unreliable, the groundwater supplies from the well are not available as a future supply and the Padre Dam MWD does not have any plans for groundwater supplies in the future.

The Santee Basin aquifer is a groundwater basin within the City of Santee and the Padre Dam MWD's service area. The Santee Basin aquifer is designated by DWR as a very low priority, unadjudicated groundwater basin.

The basin has multiple users but does not have a groundwater sustainability plan. The City of Santee is not part of the Groundwater Basin Groundwater Sustainability Agency (GSA), but serves as a voluntary participant on the GSA's core team that assists the extent feasible in the development of a groundwater sustainability plan (GSP). To comply with the California Statewide Groundwater Elevation Monitoring Program requirements, a cooperative was formed from 2015 consisting of the Padre Dam MWD, Helix Water District, City of San Diego, and the Lakeside Water District to perform ground water elevation monitoring.

4.4 Urban Water Management Plan

In accordance with the California Urban Water Management Planning Act and recent legislation, the Padre Dam Municipal WD Board of Directors adopted an UWMP in June 2020. As required by law, Padre Dam MWD's 2020 UWMP includes projected water supplies required to meet future demands through 2045. Specifically, the Padre Dam MWD 2020 UWMP is in accordance with Water Code section 10910 (c)(2) and Government Code section 66473.7 (c)(3).

The state Legislature passed Senate Bill 7 as part of the Seventh Extraordinary Session (SBX 7-7) on November 10, 2009, which became effective February 3, 2010. This new law was the water conservation component to the Delta legislation package and seeks to achieve a 20 percent statewide reduction in urban per capita water use in California by December 31, 2020. Specifically, SBX 7-7 from this Extraordinary Session requires each urban retail water supplier to develop urban water use targets to help meet the 20 percent reduction goal by 2020 (20x2020).

The SBX 7-7 target setting process includes the following: (1) baseline daily per capita water use; (2) urban water use target; (3) interim water use target; (4) compliance daily per capita water use, including technical bases and supporting data for those determinations. In order for an agency to meet its 2020 water use target, each agency can increase its use of recycled water to offset potable water use and also step up its water conservation measures. The required water use targets for 2020 were determined using one of four target methods.

Urban retail water suppliers reported interim compliance in their 2015 UWMP followed by actual compliance in the 2020 UWMP. Baseline, target, and compliance-year water use estimates are required to be reported in gallons per capita per day (gpcd).

Failure to meet adopted targets would result in the ineligibility of a water supplier to receive grants or loans administered by the State unless one (1) of two (2) exceptions is met. Exception one (1) states a water supplier may be eligible if they have submitted a schedule, financing plan, and budget to DWR for approval to achieve the per capita water use reductions. Exception two (2) states a water supplier may be eligible if an entire water service area qualifies as a disadvantaged community.

Although the Padre Dam MWD was able to meet the 2020 target goal, the year 2020 did not represent a typical year due to the impacts of the COVID-19 pandemic. Beginning March 19, 2020, Executive Order N-33-20 declared California in a state of emergency and ordered residents living in California to stay at home to prevent the spread of COVID-19. The increase in residents working from home resulted in an increase within the Padre Dam MWD's service area when the initial lockdown started. Although, since the 2020 per capita demand of 93 gpcd was below the goal for 2020, adjustments for extraordinary events were not made.

Potable demands under normal conditions are anticipated to increase to 15,944 AFY by the year 2045. Padre Dam MWD water demand projections include approximately 2,388 AFY of demand outside the Padre Dam MWD's existing service area boundary to serve the Viejas and Ewiiaapaayp tribes and parcel owners along the Interstate 8 beginning in 2025. The Water Authority supplies have been available at a consistent level and are projected to be similar in the future. Padre Dam MWD is also actively pursuing the East County Advanced Water Purification Program (AWP Project) to increase water supply reliability by improving regional self-reliance.

The highest projected demand that occurred in the single-dry year and multi-year scenario was 18,885 AFY in year 2045. Projected supplies are anticipated to meet demands. Padre Dam MWD will continue to monitor water supply shortages through new annual reporting by California Department of Water Resources (DWR).

Potable water supplied by Padre Dam MWD is 100% imported from the Water Authority. The water sources from the Water Authority include the Colorado River, Bay-Delta, seawater desalination, and some local supplies. Drinking water supplied by Padre Dam MWD continues to meet or exceeded all public health requirements enforced by the State Water Control Board Division of Drinking Water and the United States Environmental Protection Agency.

Padre Dam MWD's water system primarily consists of water storage facilities combined storage capacity of approximately 107.23 MG and 389 miles of transmission and distribution water mains. Pipelines within Padre Dam MWD's service include a combination of asbestos cement pipe (ACP), polyvinyl chloride (PVC) and concrete cylinder pipe (CCP) with approximately 15 miles of pipelines. Booster stations are found throughout Padre Dam MWD to pump water from lower pressure zones to higher pressure zones. The use of pressure reducing stations provide the ability to transfer from higher to lower pressure zones to serve customers located in different pressure zones.

The potable water infrastructure has been designed to facilitate and accommodate future water system expansion to serve projects and demands identified by Padre Dam MWD's Master Plan, UWMP, and other planning documents.

Section 5 – Historical and Projected Water Demands

Padre Dam MWD currently does not have an independent raw or potable water supply source. Padre Dam MWD is a member public agency of the Water Authority. The Water Authority is a member public agency of Metropolitan WD. The statutory relationships between the Water Authority and its member agencies, and Metropolitan WD and its member agencies, respectively, establish the scope of the Padre Dam MWD entitlement to water from these two agencies.

The Water Authority provides potable water to Padre Dam MWD through three connections. The potable water supply is imported from the California State Water Project (SWP) and the Colorado River by Metropolitan WD. The Water Authority in turn, currently purchases the majority of its water from Metropolitan WD. Due to Padre Dam MWD reliance on these two agencies, this WSA Report includes referenced documents that contain information on the existing and projected supplies, supply programs, and related projects of the Water Authority and Metropolitan WD. The Padre Dam MWD, Water Authority, and Metropolitan WD are actively pursuing programs and projects to diversify their water supply resources.

The description of local recycled water supplies available to the Padre Dam MWD is also discussed below.

5.1 Metropolitan WD 2020 Regional Urban Water Management Plan

In June 2021, Metropolitan WD adopted its 2020 Regional Urban Water Management Plan (RUWMP). The 2020 RUWMP provides MWD's member agencies, retail water utilities, cities, and counties within its service area with, among other things, a detailed evaluation of the supplies necessary to meet future demands, and an evaluation of reasonable and practical efficient water uses, recycling, and conservation activities. During the preparation of the 2020 RUWMP, Metropolitan WD also utilized the current SANDAG regional growth forecast in calculating regional water demands for the Water Authority service area.

5.1.1 Availability of Sufficient Supplies and Plans for Acquiring Additional Supplies

Metropolitan WD is a wholesale supplier of water to its member public agencies and obtains its supplies from two primary sources: the Colorado River, via the Colorado River Aqueduct (CRA), which it owns and operates, and Northern California, via the State Water Project (SWP). The 2020 RUWMP documents the availability of these existing supplies and additional supplies necessary to meet future demands.

5.1.1.1 Metropolitan WD Supplies

Metropolitan WD's Integrated Resources Plan (IRP) identifies a mix of resources (imported and local) that, when implemented, will provide 100 percent reliability for full-service demands through the attainment of regional targets set for conservation, local supplies, State

Water Project supplies, Colorado River supplies, groundwater banking, and water transfers. The 2020 update to the IRP (2020 IRP Update) includes a planning buffer supply intended to mitigate against the risks associated with implementation of local and imported supply programs. The planning buffer identifies an additional increment of water that could potentially be developed if other supplies are not implemented as planned. As part of implementation of the planning buffer, Metropolitan WD periodically evaluates supply development to ensure that the region is not under or over-developing supplies. Managed properly, the planning buffer will help ensure that the southern California region, including San Diego County, will have adequate supplies to meet future demands.

In June 2021, Metropolitan WD adopted its 2020 RUWMP in accordance with state law. The resource targets included in the preceding 2020 IRP Update serve as the foundation for the planning assumptions used in the 2020 RUWMP. Metropolitan WD's 2020 RUWMP contains a water supply reliability assessment that includes a detailed evaluation of the supplies necessary to meet demands over a 25-year period in average, single dry year, and multiple dry year periods. As part of this process, Metropolitan WD also uses the current SANDAG regional growth forecast in calculating regional water demands for the Water Authority's service area.

As stated in Metropolitan WD's 2020 RUWMP, that plan may be used as a source document for meeting the requirements of SB 610 and SB 221 until the next scheduled update is completed in 2025. The 2020 RUWMP includes a "Justifications for Supply Projections" in Appendix A.3, that provides detailed documentation of the planning, legal, financial, and regulatory basis for including each source of supply in the plan. A copy of Metropolitan WD's 2020 RUWMP can be found on the World Wide Web at the following site address: 2020-urban-water-management-plan-june-2021.pdf (mwdh2o.com)

Water supply agencies throughout California continue to face climatological, environmental, legal, and other challenges that impact water source supply conditions, such as the court rulings regarding the Sacramento-San Joaquin Delta and the current western states drought conditions. Challenges such as these essentially always will be present. The regional water supply agencies, the Water Authority and Metropolitan WD, along with Padre Dam Metropolitan WD nevertheless fully intend to have sufficient, reliable supplies to serve demands.

5.1.2 Metropolitan WD Capital Investment Plan

As part of Metropolitan WD's annual budget approval process, a Capital Investment Plan is prepared. The cost, purpose, justification, status, progress, etc. of Metropolitan WD's infrastructure projects to deliver existing and future supplies are documented in the Capital Investment Plan. The financing of these projects is addressed as part of the annual budget approval process.

Metropolitan WD's Capital Investment Plan includes a series of projects identified from Metropolitan WD studies of projected water needs, which, when considered along with operational demands on aging facilities and new water quality regulations, identify the capital

projects needed to maintain infrastructure reliability and water quality standards, improve efficiency, and provide future cost savings. All projects within the Capital Investment Plan are evaluated against an objective set of criteria to ensure they are aligned with the Metropolitan WD's goals of supply reliability and quality.

5.2 San Diego County Water Authority Regional Water Supplies

The Water Authority has adopted plans and is taking specific actions to develop adequate water supplies to help meet existing and future water demands within the San Diego region. This section contains details on the supplies being developed by the Water Authority. A summary of recent actions pertaining to development of these supplies includes:

- In accordance with the Urban Water Management Planning Act, the Water Authority adopted their 2020 UWMP in June 2021. The updated Water Authority 2020 UWMP identifies a diverse mix of local and imported water supplies to meet future demands. A copy of the updated Water Authority 2020 UWMP can be found on the internet at sdcwa.org/wp-content/uploads/2021/08/2020-UWMP_Final-Print-Version-July-2021-1.pdf

- Deliveries of conserved agricultural water from the Imperial Irrigation District (IID) to San Diego County have increased annually since 2003, with 70,000 ac-ft of deliveries in Fiscal Year (FY) 2020. These quantities will increase annually to 200,000 AFY by 2023, and then remain fixed for the duration of the transfer agreement.

- As part of the October 2003 Quantification Settlement Agreement (QSA), the Water Authority was assigned Metropolitan WD's rights to 77,700 AFY of conserved water from the All-American Canal (AAC) and Coachella Canal (CC) lining projects. Deliveries of this conserved water from the CC reached the region in 2007 and deliveries from the AAC reached the region in 2020. Expected supplies from the canal lining projects are considered verifiable Water Authority supplies.

Through implementation of the Water Authority and member agency planned supply projects, along with reliable imported water supplies from Metropolitan WD, the region anticipates having adequate supplies to meet existing and future water demands.

To ensure sufficient supplies to meet projected growth in the San Diego region, the Water Authority uses the SANDAG most recent regional growth forecast in calculating regional water demands. The SANDAG regional growth forecast is based on the plans and policies of the land-use jurisdictions with San Diego County. The existing and future demands of the member agencies are included in the Water Authority's projections.

5.2.1 Availability of Sufficient Supplies and Plans for Acquiring Additional Supplies

The Water Authority currently obtains imported supplies from Metropolitan WD, conserved water from the AAC and CC lining projects, and an increasing amount of conserved

agricultural water from IID. Of the twenty-seven member agencies that purchase water supplies from Metropolitan WD, the Water Authority is Metropolitan WD's largest customer.

Section 135 of Metropolitan WD's Act defines the preferential right to water for each of its member agencies. Under preferential rights, Metropolitan WD could allocate water without regard to historic water purchases or dependence on Metropolitan WD. The Water Authority and its member agencies are taking measures to reduce dependence on Metropolitan WD through development of additional supplies and a water supply portfolio that would not be jeopardized by a preferential rights allocation. Metropolitan WD has stated, consistent with Section 4202 of its Administrative Code that it is prepared to provide the Water Authority's service area with adequate supplies of water to meet expanding and increasing needs in the years ahead. When and as additional water resources are required to meet increasing needs, Metropolitan WD stated it will be prepared to deliver such supplies. In Section ES-5 of their 2020 RUWMP, Metropolitan WD states that Metropolitan WD has supply capacities that would be sufficient to meet expected demands from 2020 through 2045. Metropolitan WD has plans for supply implementation and continued development of a diversified resource mix including programs in the Colorado River Aqueduct, State Water Project, Central Valley Transfers, local resource projects, and in-region storage that enables the region to meet its water supply needs.

The Water Authority has made large investments in Metropolitan WD's facilities and will continue to include imported supplies from Metropolitan WD in the future resource mix. As discussed in the Water Authority's 2020 UWMP, the Water Authority and its member agencies are planning to diversify the San Diego regions supply portfolio and reduce purchases from Metropolitan WD.

As part of the Water Authority's diversification efforts, the Water Authority is now taking delivery of conserved agricultural water from IID and water saved from the AAC and CC lining projects. The CC lining project is complete and the Water Authority has essentially completed construction of the AAC lining project. Table 5 summarizes the Water Authority's supply sources with detailed information included in the sections to follow. Deliveries from Metropolitan WD are also included in Table 5, which is further discussed in Section 6.1 above. The Water Authority's member agencies provided the verifiable local supply targets for groundwater, groundwater recovery, recycled water, and surface water, which are discussed in more detail in Section 5 of the Water Authority's 2020 UWMP.

Table 5
Single Dry-Year Supply and Demand Assessment in Five Year Increments (AFY)

Water Supply Sources	2025	2030	2035	2040	2045
Water Authority Supplies					
Metropolitan WD Supplies	336,232	336,674	337,116	337,558	338,000
Water Authority/IID Transfer	200,000	200,000	200,000	200,000	200,000
AAC and CC Lining Projects	78,700	78,700	78,700	78,700	78,700
Proposed Regional Seawater Desalination	50,000	50,000	50,000	50,000	50,000
Member Agency Supplies					
Surface Water	6,004	6,004	6,004	6,004	6,004
Water Recycling	41,963	45,513	45,628	45,749	45,854
Groundwater	15,281	15,281	15,281	15,281	15,281
Potable Reuse	33,042	53,202	112,562	112,562	112,562
San Luis Rey Water Transfers	15,800	15,800	15,800	15,800	15,800
Total Projected Supplies	**777,022**	**801,174**	**861,091**	**861,654**	**862,201**

Source: Water Authority 2020 Urban Water Management Plan – Table 9-2.

Section 5 of the Water Authority's 2020 UWMP also includes a discussion on the local supply target for seawater desalination. Seawater desalination supplies represent a significant future local resource in the Water Authority's service area.

The Carlsbad Desalination Plant is a seawater desalination plant and associated conveyance pipeline that was developed by Poseidon, a private investor-owned company that owns the plant. The Carlsbad Desalination Plant, located at the Encina Power Station in Carlsbad, began commercial operation on December 23, 2015, and provides a highly reliable local supply of up to 56,000 AFY for the region. In addition, there is the potential to increase annual average production capacity of the Carlsbad Desalination Plant to 61,600 AF as an adaptive management supply (subject to future supply conditions and future Board action). The potential 5,600 AF increment of additional seawater desalination supply from the Carlsbad Desalination Plant could be placed into service prior to 2025. A 54-inch-diameter pipeline conveys product water from the Carlsbad Desalination Plant 10.5 miles east to the Water Authority's Second Aqueduct. The water is then conveyed 5 miles north to the Water Authority's Twin Oaks Valley WTP facility, where it is blended with treated imported water and subsequently distributed into the Water Authority's existing aqueduct system.

The Water Authority's existing and planned supplies from the IID transfer and canal lining projects are considered "drought-proof" supplies and should be available at the yields shown in Table 8 in normal water year supply and demand assessment. Single dry year and multiple dry year scenarios are discussed in more detail in Section 9 of the Water Authority's 2020 UWMP.

As part of preparation of a written water supply assessment and/or verification report, an agency's shortage contingency analysis should be considered in determining sufficiency of supply. Section 11 of the Water Authority's 2020 UWMP contains a detailed shortage contingency analysis that addresses a regional catastrophic shortage situation and drought

management. The analysis demonstrates that the Water Authority and its member agencies, through the Emergency Response Plan, Emergency Storage Project, and Drought Management Plan (DMP) are taking actions to prepare for and appropriately handle an interruption of water supplies. The DMP, adopted in May 2006, provides the Water Authority and its member agencies with a series of potential actions to take when faced with a shortage of imported water supplies from Metropolitan WD due to prolonged drought or other supply shortfall conditions. The actions will help the region avoid or minimize the impacts of shortages and ensure an equitable allocation of supplies throughout the San Diego region.

5.2.1.1 Water Authority-Imperial Irrigation District Water Conservation and Transfer Agreement

The QSA was signed in October 2003, and resolves long-standing disputes regarding priority and use of Colorado River water and creates a baseline for implementing water transfers. With approval of the QSA, the Water Authority and IID were able to implement their Water Conservation and Transfer Agreement. This agreement not only provides reliability for the San Diego region, but also assists California in reducing its use of Colorado River water to its legal allocation.

On April 29, 1998, the Water Authority signed a historic agreement with IID for the long-term transfer of conserved Colorado River water to San Diego County. The Water Authority-IID Water Conservation and Transfer Agreement (Transfer Agreement) is the largest agriculture-to-urban water transfer in United States history. Colorado River water will be conserved by Imperial Valley farmers who voluntarily participate in the program and then transferred to the Water Authority for use in San Diego County.

Implementation Status

On October 10, 2003, the Water Authority and IID executed an amendment to the original 1998 Transfer Agreement. This amendment modified certain aspects of the 1998 Agreement to be consistent with the terms and conditions of the QSA and related agreements. It also modified other aspects of the agreement to lessen the environmental impacts of the transfer of conserved water. The amendment was expressly contingent on the approval and implementation of the QSA, which was also executed on October 10, 2003.

On November 5, 2003, IID filed a complaint in Imperial County Superior Court seeking validation of 13 contracts associated with the Transfer Agreement and the QSA. Imperial County and various private parties filed additional suits in Superior Court, alleging violations of the California Environmental Quality Act (CEQA), the California Water Code, and other laws related to the approval of the QSA, the water transfer, and related agreements. The lawsuits were coordinated for trial. In January 2010, a California Superior Court judge ruled that the QSA and 11 related agreements were invalid because one of the agreements created an open-ended financial obligation for the State, in violation of California's constitution. IID, Coachella Valley Water District, Metropolitan WD, the Water Authority, and state appealed this decision, and a stay of the trial court judgment was issued during the appeal. In December 2011, California's Third District Court of Appeal reversed the lower court ruling that

invalidated the Transfer Agreement and QSA. The appeals court remanded several issues to the trial court, including questions about whether the QSA was properly processed under CEQA. In July 2013, a Sacramento Superior Court judge entered a final judgment validating the QSA and rejecting all of the remaining legal challenges. The judge affirmed all of the contested actions, including the adequacy of the environmental documents prepared by IID. In May 2015, the state Court of Appeal issued a ruling that dismissed all remaining appeals.

Expected Supply

Deliveries into San Diego County from the transfer began in 2003 with an initial transfer of 10,000 AFY. The Water Authority received increasing amounts of transfer water each year, according to a water delivery schedule contained in the transfer agreement. In 2019, the Water Authority received 192,500 AF of water which includes 2,500 AF of early transfer water. The quantities will remain fixed at 200,000 AF for the duration of the Transfer Agreement. The term of the agreement is 45 years with a provision to extend for an additional 30 years.

During dry years, when water availability is low, the conserved water will be transferred under the IID Colorado River rights, which are among the most senior in the Lower Colorado River Basin. Without the protection of these rights, the Water Authority could suffer delivery cutbacks. In recognition for the value of such reliability, the 1998 contract required the Water Authority to pay a premium on transfer water under defined regional shortage circumstances. The shortage premium period duration is the period of consecutive days during which any of the following exist: 1) a Water Authority shortage; 2) a shortage condition for the Lower Colorado River as declared by the Secretary; and 3) a Critical Year. Under terms of the October 2003 amendment, the shortage premium will not be included in the cost formula until Agreement Year 16.

Transportation

The Water Authority entered into a water exchange agreement with Metropolitan WD on October 10, 2003, to transport the Water Authority-IID transfer water from the Colorado River to San Diego County. Under the exchange agreement, Metropolitan WD will take delivery of the transfer water through its Colorado River Aqueduct. In exchange, Metropolitan WD will deliver to the Water Authority a like quantity and quality of water. The Water Authority will pay Metropolitan WD's applicable wheeling rate for each acre-foot of exchange water delivered. According to the water exchange agreement, Metropolitan WD will make delivery of the transfer water for 35 years, unless the Water Authority elects to extend the agreement another 10 years for a total of 45 years.

Cost/Financing

The costs associated with the transfer are financed through the Water Authority's rates and charges. In the agreement between the Water Authority and IID, the price for the transfer water started at $258 per acre-feet and increased by a set amount for the first seven years. In December 2009, the Water Authority and IID executed a fifth amendment to the water transfer agreement that sets the price per acre-feet for transfer water for calendar years 2010

through 2015, beginning at $405 per acre-feet in 2010 and increasing to $624 per acre-feet in 2015. For calendar years 2016 through 2034, the unit price will be adjusted using an agreed-upon index. The amendment also required the Water Authority to pay IID $6 million at the end of calendar year 2009 and another $50 million on or before October 1, 2010, provided that a transfer stoppage is not in effect as a result of a court order in the QSA coordinated cases. Beginning in 2035, either the Water Authority or IID can, if certain criteria are met, elect a market rate price through a formula described in the water transfer agreement.

The October 2003 exchange agreement between Metropolitan WD and the Water Authority set the initial cost to transport the conserved water at $253 per acre-foot. Thereafter, the price is set to be equal to the charge or charges set by Metropolitan WD's Board of Directors pursuant to applicable laws and regulation, and generally applicable to the conveyance of water by Metropolitan WD on behalf of its member agencies. The transportation charge in 2010 was $314 per acre-foot.

The Water Authority is providing $10 million to help offset potential socioeconomic impacts associated with temporary land fallowing. IID will credit the Water Authority for these funds during years 16 through 45. In 2007, the Water Authority prepaid IID an additional $10 million for future deliveries of water. IID will credit the Water Authority for this up-front payment during years 16 through 30.

As part of implementation of the QSA and water transfer, the Water Authority also entered into an environmental cost sharing agreement. Under this agreement the Water Authority is contributing a total of $64 million to fund environmental mitigation projects and the Salton Sea Restoration Fund.

Written Contracts or Other Proof

The supply and costs associated with the transfer are based primarily on the following documents:

Agreement for Transfer of Conserved Water by and between IID and the Water Authority (April 29, 1998). This Agreement provides for a market-based transaction in which the Water Authority would pay IID a unit price for agricultural water conserved by IID and transferred to the Water Authority.

Revised Fourth Amendment to Agreement between IID and the Water Authority for Transfer of Conserved Water (October 10, 2003). Consistent with the executed Quantification Settlement Agreement (QSA) and related agreements, the amendments restructure the agreement and modify it to minimize the environmental impacts of the transfer of conserved water to the Water Authority.

Amended and Restated Agreement between Metropolitan WD and Water Authority for the Exchange of Water (October 10, 2003). This agreement was executed pursuant to the QSA and provides for delivery of the transfer water to the Water Authority.

Environmental Cost Sharing, Funding, and Habitat Conservation Plan Development Agreement among IID, Coachella Valley Water District (CVWD), and Water Authority (October 10, 2003). This Agreement provides for the specified allocation of QSA-related environmental review, mitigation, and litigation costs for the term of the QSA, and for development of a Habitat Conservation Plan.

Quantification Settlement Agreement Joint Powers Authority Creation and Funding Agreement (October 10, 2003). The purpose of this agreement is to create and fund the QSA Joint Powers Authority and to establish the limits of the funding obligation of CVWD, IID, and Water Authority for environmental mitigation and Salton Sea restoration pursuant to SB 654 (Machado).

Fifth Amendment to Agreement Between Imperial Irrigation District and San Diego County Water Authority for Transfer of Conserved Water (December 21, 2009). This agreement implements a settlement between the Water Authority and IID regarding the base contract price of transferred water.

Federal, State, and Local Permits/Approvals

Federal Endangered Species Act Permit. The U.S. Fish and Wildlife Service (USFWS) issued a Biological Opinion on January 12, 2001, that provides incidental take authorization and certain measures required to offset species impacts on the Colorado River regarding such actions.

State Water Resources Control Board (SWRCB) Petition. SWRCB adopted Water Rights Order 2002-0016 concerning IID and Water Authority's amended joint petition for approval of a long-term transfer of conserved water from IID to the Water Authority and to change the point of diversion, place of use, and purpose of use under Permit 7643.

Environmental Impact Report (EIR) for Conservation and Transfer Agreement. As lead agency, IID certified the Final EIR for the Conservation and Transfer Agreement on June 28, 2002.

U. S. Fish and Wildlife Service Draft Biological Opinion and Incidental Take Statement on the Bureau of Reclamation's Voluntary Fish and Wildlife Conservation Measures and Associated Conservation Agreements with the California Water Agencies (12/18/02). The U. S. Fish and Wildlife Service issued the biological opinion/incidental take statement for water transfer activities involving the Bureau of Reclamation and associated with IID/other California water agencies' actions on listed species in the Imperial Valley and Salton Sea (per the June 28, 2002 EIR).

Addendum to EIR for Conservation and Transfer Agreement. IID as lead agency and Water Authority as responsible agency approved addendum to EIR in October 2003.

Environmental Impact Statement (EIS) for Conservation and Transfer Agreement. Bureau of Reclamation issued a Record of Decision on the EIS in October 2003.

CA Department of Fish and Game California Endangered Species Act Incidental Take Permit #2081-2003-024-006). The California Department of Fish and Game issued this permit

(10/22/04) for potential take effects on state-listed/fully protected species associated with IID/other California water agencies' actions on listed species in the Imperial Valley and Salton Sea (per the June 28, 2002 EIR).

California Endangered Species Act (CESA) Permit. A CESA permit was issued by California Department of Fish and Game (CDFG) on April 4, 2005, providing incidental take authorization for potential species impacts on the Colorado River.

5.2.1.2 All-American Canal and Coachella Canal Lining Projects

As part of the QSA and related contracts, the Water Authority was assigned Metropolitan WD's rights to 77,700 AFY of conserved water from projects that will line the All-American Canal (AAC) and Coachella Canal (CC). The projects will reduce the loss of water that currently occurs through seepage, and the conserved water will be delivered to the Water Authority. This conserved water will provide the San Diego region with an additional 8.5 million acre-feet over the 110-year life of the agreement.

Implementation Status

The CC lining project constructed approximately 35 miles of parallel, concrete lined canal next to the original CC canal. Although construction completed in 2006, deliveries of conserved water to the Water Authority began in 2007. The AAC lining project constructed approximately 23 miles of parallel, concrete lined canal adjacent to the original AAC, which was completed in 2010 when deliveries of conserved water to the Water Authority began.

Expected Supply

The AAC lining project makes 67,700 acre-feet of Colorado River water per year available for allocation to the Water Authority and San Luis Rey Indian water rights settlement parties. The CC lining project makes 26,000 acre-feet of Colorado River water each year available for allocation. The 2003 Allocation Agreement provides for 16,000 acre-feet per year of conserved canal lining water to be allocated to the San Luis Rey Indian Water Rights Settlement Parties. The remaining amount, 77,700 AFY, is to be available to the Water Authority which is a result of lining portions of the All-American Canal (AAC) and Coachella Canal (CC), ultimately reducing water loss. For planning purposes, the Water Authority assumes that 2,500 acre-feet of the 4,850 acre-feet will be available each year for delivery, for a total of 80,200 acre-feet per year of that supply. According to the Allocation Agreement, IID has call rights to a portion (5,000 AFY) of the conserved water upon termination of the QSA for the remainder of the 110 years of the Allocation Agreement and upon satisfying certain conditions. The term of the QSA is for up to 75 years.

Transportation

The October 10, 2003, Exchange Agreement between the Water Authority and Metropolitan WD also provides for the delivery of the conserved water from the canal lining projects. The Water Authority will pay Metropolitan WD's applicable wheeling rate for each acre-foot of

exchange water delivered. In the Agreement, Metropolitan WD will deliver the canal lining water for the term of the Allocation Agreement (110 years).

Cost/Financing

Under California Water Code section 12560 et seq., the Water Authority received $200 million in state funds for construction of the canal lining projects. In addition, $20 million was made available from Proposition 50 and $36 million from Proposition 84. The Water Authority was responsible for additional expenses above the funds provided by the state.

The rate to be paid to transport the canal lining water will be equal to the charge or charges set by Metropolitan WD's Board of Directors pursuant to applicable law and regulation and generally applicable to the conveyance of water by Metropolitan WD on behalf of its member agencies.

In accordance with the Allocation Agreement, the Water Authority will also be responsible for a portion of the net additional Operation, Maintenance, and Repair (OM&R) costs for the lined canals. Any costs associated with the lining projects as proposed, are to be financed through the Water Authority's rates and charges.

Written Contracts or Other Proof

The expected supply and costs associated with the lining projects are based primarily on the following documents:

U.S. Public Law 100-675 (1988). Authorized the Department of the Interior to reduce seepage from the existing earthen AAC and CC. The law provides that conserved water will be made available to specified California contracting water agencies according to established priorities.

California Department of Water Resources - Metropolitan WD Funding Agreement (2001). Reimburse Metropolitan WD for project work necessary to construct the lining of the CC in an amount not to exceed $74 million. Modified by First Amendment (2004) to replace Metropolitan WD with the Authority. Modified by Second Amendment (2004) to increase funding amount to $83.65 million, with addition of funds from Proposition 50.

California Department of Water Resources - IID Funding Agreement (2001). Reimburse IID for project work necessary to construct a lined AAC in an amount not to exceed $126 million.

Metropolitan WD - CVWD Assignment and Delegation of Design Obligations Agreement (2002). Assigns design of the CC lining project to CVWD.

Metropolitan WD - CVWD Financial Arrangements Agreement for Design Obligations (2002). Obligates Metropolitan WD to advance funds to CVWD to cover costs for CC lining project design and CVWD to invoice Metropolitan WD to permit the Department of Water Resources to be billed for work completed.

Allocation Agreement among the United States of America, The Metropolitan Water District of Southern California, Coachella Valley Water District, Imperial Irrigation District, San Diego County Water Authority, the La Jolla, Pala, Pauma, Rincon, and San Pasqual Bands of Mission Indians, the San Luis Rey River Indian Water Authority, the City of Escondido, and Vista Irrigation District (October 10, 2003). This agreement includes assignment of Metropolitan WD's rights and interest in delivery of 77,700 acre-feet of Colorado River water previously intended to be delivered to Metropolitan WD to the Water Authority. Allocates water from the AAC and CC lining projects for at least 110 years to the Water Authority, the San Luis Rey Indian Water Rights Settlement Parties, and IID, if it exercises its call rights.

Amended and Restated Agreement between Metropolitan WD and Water Authority for the Exchange of Water (October 10, 2003). This agreement was executed pursuant to the QSA and provides for delivery of the conserved canal lining water to the Water Authority.

Agreement between Metropolitan WD and Water Authority regarding Assignment of Agreements related to the AAC and CC Lining Projects. This agreement was executed in April 2004 and assigns Metropolitan WD's rights to the Water Authority for agreements that had been executed to facilitate funding and construction of the AAC and CC lining projects.

Assignment and Delegation of Construction Obligations for the Coachella Canal Lining Project under the Department of Water Resources Funding Agreement No. 4600001474 from the San Diego County Water Authority to the Coachella Valley Water District, dated September 8, 2004.

Agreement Regarding the Financial Arrangements between the San Diego County Water Authority and Coachella Valley Water District for the Construction Obligations for the Coachella Canal Lining Project, dated September 8, 2004.

Agreement No. 04-XX-30-W0429 Among the United States Bureau of Reclamation, the Coachella Valley Water District, and the San Diego County Water Authority for the Construction of the Coachella Canal Lining Project Pursuant to Title II of Public Law 100-675, dated October 19, 2004.

California Water Code Section 12560 et seq. This Water Code Section provides for $200 million to be appropriated to the Department of Water Resources to help fund the canal lining projects in furtherance of implementing California's Colorado River Water Use Plan.

California Water Code Section 79567. This Water Code Section identifies $20 million as available for appropriation by the California Legislature from the Water Security, Clean Drinking Water, Coastal, and Beach Protection Fund of 2002 (Proposition 50) to DWR for grants for canal lining and related projects necessary to reduce Colorado River water use. According to the Allocation Agreement, it is the intention of the agencies that those funds will be available for use by the Water Authority, IID, or CVWD for the AAC and CC lining projects.

California Public Resources Code Section 75050(b)(1). This section identifies up to $36 million as available for water conservation projects that implement the Allocation Agreement as defined in the Quantification Settlement Agreement.

Federal, State, and Local Permits/Approvals

AAC Lining Project Final EIS/EIR (March 1994). A final EIR/EIS analyzing the potential impacts of lining the AAC was completed by the Bureau of Reclamation (Reclamation) in March 1994. A Record of Decision was signed by Reclamation in July 1994, implementing the preferred alternative for lining the AAC. A re-examination and analysis of these environmental compliance documents by Reclamation in November 1999 determined that these documents continued to meet the requirements of the NEPA and the CEQA and would be valid in the future.

CC Lining Project Final EIS/EIR (April 2001). The final EIR/EIS for the CC lining project was completed in 2001. Reclamation signed the Record of Decision in April 2002. An amended Record of Decision has also been signed to take into account revisions to the project description.

Mitigation, Monitoring, and Reporting Program for Coachella Canal Lining Project, SCH #1990020408; prepared by Coachella Valley Water District, May 16, 2001.

Environmental Commitment Plan for the Coachella Canal Lining Project, approved by the US Bureau of Reclamation (Boulder City, NV) on March 4, 2003.

Environmental Commitment Plan and Addendum to the All-American Canal Lining Project EIS/EIR California State Clearinghouse Number SCH 90010472 (June 2004, prepared by IID).

Addendum to Final EIS/EIR and Amendment to Environmental Commitment Plan for the All-American Canal Lining Project (approved June 27, 2006, by IID Board of Directors).

5.2.1.3 Carlsbad Seawater Desalination Project

Development of seawater desalination in San Diego County will assist the region in diversifying its water resources, reduce dependence on imported supplies, and provide a new drought-proof, locally treated water supply. The Carlsbad Desalination Project is a fully-permitted seawater desalination plant and conveyance pipeline developed by Poseidon, a private investor–owned company that develops water and wastewater infrastructure. The Carlsbad Desalination Plant, located at the Encina Power Station in Carlsbad, began commercial operation on December 23, 2015, and provides a highly reliable local supply of up to 56,000 AFY for the region.

As a result of the forthcoming Encina Power Station decommissioning and termination of the once-through cooling water system and seawater intake pumps, the Carlsbad Desalination Plant is transitioning from co-located operations with the Encina Power Station to permanent stand-alone operations. Recent changes to the existing intake and discharge operations include a direct lagoon intake and fish-friendly pumps; it will also include future construction of new

1 mm screens for seawater process water or brine dilution water. In addition, there is the potential to increase annual average production capacity of the Carlsbad Desalination Plant to 61,600 AF as an adaptive management supply (subject to future supply conditions and future Board action). The potential 5,600 AF increment of additional seawater desalination supply from the Carlsbad Desalination Plant could be placed into service prior to 2025.

Transportation

A 54-inch-diameter pipeline conveys product water from the Carlsbad Desalination Plant 10.5 miles east to the Water Authority's Second Aqueduct. The water is then conveyed 5 miles north to the Water Authority's Twin Oaks Valley WTP facility, where it is blended with treated imported water and subsequently distributed into the Water Authority's existing aqueduct system.

Cost/Financing

The Water Purchase Agreement between the Water Authority and Poseidon provides the terms whereby the Water Authority purchases the entire output from the Carlsbad Desalination Plant at a price based on the cost of production. For contract year 2018-19, the price was $2,685 per AF (including conveyance pipeline debt service, Poseidon management fee, and temporary standalone operations period charges). The Water Authority's water purchase costs are financed through Water Authority rates and charges.

Written Contracts or Other Proof

The expected supply and costs associated with the Carlsbad Desalination Project are based primarily on the following documents:

Development Agreement between City of Carlsbad and Poseidon (October 2009). A Development Agreement between Carlsbad and Poseidon was executed on October 5, 2009.

Agreement of Term Sheet between the Water Authority and Poseidon Resources (July 2010). The Water Authority approved the Term Sheet at its July 2010 Board Meeting. The Term Sheet outlines the terms and conditions of a future Water Purchase Agreement with Poseidon and allocates the resources to prepare the draft Water Purchase Agreement.

Federal, State, and Local Permits/Approvals

Carlsbad Desalination Project Final EIR
The City of Carlsbad, acting as lead agency for Carlsbad Seawater Desalination Plant and appurtenant facilities proposed by Poseidon (the "Project") prepared an Environmental Impact Report for the Project in compliance with the California Environmental Quality Act ("CEQA"), which the City of Carlsbad certified on June 13, 2006.
http://www.sdcwa.org/rwfmp-peir

The City of Carlsbad prepared an Addendum to the Carlsbad EIR ("Addendum") which was adopted on September 15, 2009, and reflects minor and immaterial design modifications to the Project site plan, appurtenant facilities, and water delivery pipeline network.

The environmental documents and permits are found at the following link:
http://www.carlsbad-desal.com/EIR.asp

The Water Authority, as a Responsible Agency under CEQA, adopted a resolution on November 29, 2012 approving a Second Addendum to the Carlsbad Precise Development Plan and Desalination Plant Final EIR and First Addendum that evaluates the environmental impacts of several proposed facility modifications that are necessary to allow for operational flexibility and efficiency in receiving and delivering desalination product water. These modifications include: a realignment of a portion of the approved desalination pipeline, the addition of chemical injection at the approved San Marcos Aqueduct Connection site, the relining of a portion of Pipeline 3, the addition of a pipeline and expanded flow control facility at Twin Oaks Valley Water Treatment Plant and a replacement of the San Marcos Vent on Pipeline 4. Impacts associated with the proposed modifications would not result in a new significant impact or substantial increase in the severity of impacts previously evaluated in the Carlsbad FEIR or the First Addendum. There are no substantial changes to the circumstances under which the project will be undertaken, and no new information of substantial importance that was not known and could not have been known when the FEIR was certified and the First Addendum was approved, and that have since been identified. Therefore, the Second Addendum satisfies the CEQA requirements for the proposed project modifications.

Regional Water Facilities Master Plan EIR
On November 20, 2003, the Water Authority Board of Directors adopted Resolution No. 2003-34 certifying the Final Program Environmental Impact Report (State Clearinghouse No. 2003021052) for the Water Authority's Regional Water Facilities Master Plan Project (the "Master Plan EIR"), which evaluated, among other things, potential growth inducing impacts associated with new water supplies to the region including, but not limited to, up to 150 million gallons per day ("MGD") of new supplies from seawater desalination. This certification included a 50 MGD plant located in the City of Carlsbad.

The environmental documents and permits are found at the following link:
http://www.sdcwa.org/rwfmp-peir

Sub regional Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP)
On December 8, 2010, the Board adopted Resolution No. 2010-18 certifying a Final environmental Impact Report/Environmental Impact Statement for the San Diego County Water Authority Subregional Natural Community Conservation Plan/Habitat Conservation Plan (State Clearinghouse No. 2003121012) (the "Habitat Conservation Plan EIR/EIS"), which Plan was implemented on December 28, 201.

The environmental documents and permits are found at the following link:
http://www.sdcwa.org/nccp-hcp

Twin Oaks Valley Water Treatment Plant EIR
On September 8, 2005, the Board adopted Resolution No. 2005-31 certifying a Final Environmental Impact Report for the Twin Oaks Valley Water Treatment Plant Project (State Clearinghouse No. 20040071034) (the "Twin Oaks EIR"), which project was constructed as a 100 MGD submerged membrane water treatment facility, including treated water holding tanks and distribution pipelines and other facilities, consistent with the conditions and mitigation measures included in the Twin Oaks EIR.
http://www.sdcwa.org/twin-oaks-valley-treatment-plant-final-eir

2010 Urban Water Management Plan
http://www.sdcwa.org/2010-urban-water-management-plan

Drinking Water Permit (October 2006). The California Department of Health Services approved the Conditional Drinking Water Permit on October 19, 2006.

Coastal Development Permit
The Project is fully permitted, with the California Coastal Commission issuing the following permits: Coastal Development Permit No. E-06-013, Energy Minimization and Greenhouse Gas Reduction Plan (December 2008), Marine Life Mitigation Plan (December 2008), Erosion Control Plan (November 2009), Landscaping Plan (September 2009), Lighting Plan (August 2009), Construction Plan (September 2009), and Water Pollution Control Plan (September 2009); the California Department of Public Health issuing Conceptual Approval Letter dated October 19, 2006; the California Regional Water Quality Control Board issuing NPDES Permit No. CA0109223 and Notice of Intent to Discharge for Storm Water Associated with Construction Activities (WDID #9 37C361181); the City of Carlsbad issuing Redevelopment Permit RP 05-12(A), Specific Plan 144 with Amendment 144(J) SP 144(J), Habitat Management Plan Permit Amendment HMP 05-08(A), Precise Development Plan PDP 00-02(B), Mitigation Monitoring and Reporting Program for EIR 03-05(A), Development Agreement DA 05-01(A), Standard Urban Storm Water Mitigation Program (September 2009), and Coastal Development Permit 04-41; the State of California State Lands Commission issuing an Amendment of Lease PRC 8727.1 (August 2008).

The environmental documents and permits are found at the following link:
http://www.sdcwa.org/carlsbad-desalination-project-approved-permits-and-plans

State Lands Commission Lease Application (Amendment of Lease PRC 8727.1 August 2008). Amends lease of land by Cabrillo Power I LLC (Cabrillo) from the State Lands Commission for the lands where the project will be constructed. Cabrillo and Poseidon entered into agreement on July 1, 2003, authorizing Poseidon to use those lands to construct the project.

5.2.2 Water Authority Capital Improvement Program and Financial Information

The Water Authority's Capital Improvement Program (CIP) can trace its beginnings to a report approved by the Board in 1989 entitled, The Water Distribution Plan, and a Capital Improvement Program through the Year 2020. The Water Distribution Plan included ten

projects designed to increase the capacity of the aqueduct system, increase the yield from existing water treatment plants, obtain additional supplies from Metropolitan WD, and increase the reliability and flexibility of the aqueduct system. Since that time the Water Authority has made numerous additions to the list of projects included in its CIP as the region's infrastructure needs and water supply outlook have changed.

The current list of projects included in the CIP is based on the results of planning studies, including the 2005 UWMP and the 2002 Regional Water Facilities Master Plan. These CIP projects, which are most recently described in the Water Authority's Adopted Multi-Year Budget, include projects valued at $3.50 billion. These CIP projects are designed to meet projected water supply and delivery needs of the member agencies through 2045. The projects include a mix of new facilities that will add capacity to existing conveyance, storage, and treatment facilities, as well as repair and replace aging infrastructure:

- Asset Management – The primary components of the asset management projects include relining and replacing existing pipelines and updating and replacing metering facilities.
- New Facilities – These projects will expand the capacity of the aqueduct system, complete the projects required under the Quantification Settlement Agreement (QSA), and evaluate new supply opportunities.
- Emergency Storage Project – Projects remaining to be completed under the ongoing ESP include the San Vicente Dam Raise, the Lake Hodges projects, and a new pump station to extend ESP supplies to the northern reaches of the Water Authority service area.
- Other Projects – This category includes out-of-region groundwater storage, increased local water treatment plant capacity, and projects that mitigate environmental impacts of the CIP.

The Water Authority Board of Directors is provided a semi-annual and annual report on the status of development of the CIP projects. As described in the Water Authority's biennial budget, a combination of long and short term debt and cash (pay-as-you-go) will provide funding for capital improvements. Additional information is included in the Water Authority's biennial budget, which also contains selected financial information and summarizes the Water Authority's investment policy.

Section 6 - Existing and Projected Supplies

Padre Dam MWD's UWMP identifies the quantity of water supplied to the agency's customers including a breakdown of land uses. According to California Code, Water Code – WAT §10631(d). (1) For an urban retail water supplier, quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, based upon information developed pursuant to subdivision (a), identifying the uses among water use sectors, including, but not necessarily limited to, all of the following… (2). The water use projections shall be in the same five-year

increments described in subdivision (a). (4)(A) Water use projections, where available, shall display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified by the urban water supplier, as applicable to the service area.

The potable water demands served by Padre Dam MWD are primarily residential, commercial, industrial, institutional, and irrigation. The potable water demand is presented in Table 6 for the 2019-2020 year.

Table 6 – Demands for Potable and Non-Potable Water – Actual

Use Type	2020 Actual	
	Additional Description	**Volume (AFY)**
Single Family Residential	Municipal and Industrial	5,447
Multi-Family Residential	Municipal and Industrial	1,793
Commercial	Municipal and Industrial	1,112
Institutional/Governmental	Municipal and Industrial	191
Landscape	Municipal and Industrial	362
Agriculture Irrigation		106
Other	Construction	99
Other	Unbilled Unmetered(1)	30
Other	Potable Supplemental to Recycled Water System	18
Losses(2)		431
Total		**9,588**

(1) Unbilled unmetered includes water flushing, sewer flushing, and firefighting. Values were obtained from the American Water Works Association (AWWA) Audit Report 2020.

(2) Losses obtained from AWWA Audit Report 2020 equates to approximately 449 acre-feet per year (AFY) (Appendix E). Potable supplement to recycled water was included as part of the losses in the audit. Thus, losses in this table are adjusted to reflect losses without potable supplement to the recycled water system.

Source: Padre Dam Municipal Water District 2020 UWMP.

The water use by sector is summarized from billing records based on individual meter readings. As shown in Table 6, residential demand account for approximately 76% of Padre Dam MWD's total demand. Commercial, institutional, and governmental accounts for 13% of Padre Dam MWD's total demand. The remaining 11% accounts for landscape irrigation, agricultural irrigation, construction, potable supplement to the recycled water system, and losses.

Table 7 contains the projected potable water demands within and outside of the Padre Dam MWD boundary from 2025 through 2045. These are only general estimates of projected use and may vary significantly based on future development and water conservation measures taken by each customer sector. The implementation, magnitude, and type of development in the future will determine the distribution of water use per type.

Table 7
Demands for Potable and Non-Potable Water – Projected (AFY)

Use Type	Additional Description (as needed)	2025	2030	2035	2040	2045
Residential		7,438	8,217	9,004	9,683	10,070
Commercial		1,398	1,465	1,525	1,585	1,645
Institutional/Governmental		188	191	194	196	199
Landscape		357	579	73	817	822
Agricultural irrigation		104	161	181	186	187
Other(1)	Construction and Unmetered	127	137	146	156	166
Losses(2)		442	449	455	461	468
Other Potable	Outside of District(3)	2,388	2,388	2,388	2,388	2,388
TOTAL		**12,442**	**13,586**	**14,623**	**15,473**	**15,944**

(1) Other category includes construction and water used for potable flushing, sewer flushing, and firefighting.

(2) Includes potable water supplement to recycled water.

(3) Outside of District includes the near term annexations, which includes the Viejas tribe, Ewiiaapaayp tribe, and the I-8 corridor outside of the Padre Dam MWD's eastern boundary.

Source: Padre Dam Municipal Water District 2020 UWMP.

Padre Dam MWD's potable water demand is anticipated to increase to 15,944 AFY by year 2045.

Water may be recycled for non-potable or potable purposes. Table 8 considers non-potable recycling within the Padre Dam MWD's service area. In 1959, Padre Dam MWD developed a local wastewater treatment plant and water reclamation facility. The facility treats wastewater at a tertiary level. Approximately one million gallons per day (MGD) of the treated wastewater is discharged into Santee Lakes. The remaining water is used for irrigation at community parks, schools, city streetscapes, and community fountains. Padre Dam MWD's existing recycled water system includes the Ray Stoyer WRF, the Recycled Water Effluent Pump Station, and Fanita Terrace Reservoir.

Padre Dam MWD's recycled water demand increased from 2001 to 2014 with a peak of 1,025 AFY in 2014. Since 2014, recycled water demands have decreased. The current and projected recycled water uses are summarized in Table 8. Since Padre Dam MWD does not plan to expand the recycled water system, the recycled water demand is expected to remain steady. The projected recycled water volumes are based on current agreements, which may be revised in the future.

Table 8
Recycled Water Beneficial Uses Within Service Area (AFY)

Beneficial Use Type	Potential Beneficial Uses of Recycled Water	Amount of Potential Uses of Recycled Water	General Description of 2020 Uses	2020[5]	2025[4]	2030[4]	2035[4]	2040[4]	2045[4]
Landscape irrigation (exc golf courses)[3]	Parks, medians, HOA landscapes, dust control	1,232	Parks, medians, HOA landscapes, dust control	780	1,232	1.232	1.232	1.232	1.232
Recreational impoundment[3][4]	Santee Lakes replenishment and Flushing	1,120	Santee Lakes replenishment and Flushing	970	970	0	0	0	0
TOTAL				**1,750**	**2,202**	**1,232**	**1,232**	**1,232**	**1,232**

(1) Supplemental water includes 198 AFY from the non-potable groundwater well and 18 AFY potable supplemental water.

(2) The future AWP Program will eliminate untreated groundwater and potable water use for supplementing the recycled water system, thereby further enhancing source water availability and reliability.

(3) Used in Table 4 as planned recycled water demand.

(4) Santee Lakes will be replenished by water from the brine minimization process planned at the AWP facilities.

(5) Volumes do not include supplemented water quantities noted above.

Source: Padre Dam Municipal Water District 2020 UWMP.

As shown in Table 1, the total projected water use including recycled water is anticipated to increase by 17,176 AFY by 2045. Recycled water use is expected to decrease to 1,232 AFY after 2025 due to discontinuation of discharge into Santee Lakes. The recycled water demand is assumed to remain the same through the remainder of the planning horizon.

6.1 Demand Management (Water Conservation)

Demand management, or water conservation is a critical part of the Padre Dam MWD 2020 UWMP and its long term strategy for meeting water supply needs of Padre Dam MWD customers. Water conservation, is frequently the lowest cost resource available to any water agency. The goals of the Padre Dam MWD water conservation programs are to:

- Reduce the demand for more expensive, imported water.
- Demonstrate continued commitment to the Best Management Practices (BMP).
- Ensure a reliable water supply.

Padre Dam MWD is signatory to the Memorandum of Understanding (MOU) Regarding Urban Water Conservation in California, which created the California Urban Water Conservation Council (CUWCC) in 1991 in an effort to reduce California's long-term water demands. Water conservation programs are developed and implemented on the premise that water conservation increases the water supply by reducing the demand on available supply, which is vital to the optimal utilization of a region's water supply resources. Padre Dam

MWD participates in many water conservation programs designed and typically operated on a shared cost participation program basis among the Water Authority, Metropolitan WD, and their member agencies.

As one of the first signatories to the MOU Regarding Urban Water Conservation in California, Padre Dam MWD has made BMP implementation for water conservation the cornerstone of its conservation programs and a key element in its water resource management strategy. As a member of the Water Authority, Padre Dam MWD also benefits from regional programs performed on behalf of its member agencies. The BMP programs implemented by Padre Dam MWD and regional BMP programs implemented by the Water Authority that benefit all their member agencies are addressed in the Padre Dam MWD 2020 UWMP. In partnership with the Water Authority, the County of San Diego, City of San Diego, City of Chula Vista, and developers, Padre Dam MWD water conservation efforts are expected to grow and expand. The resulting savings directly relate to additional available water in the San Diego County region for beneficial use within the Water Authority service area, including Padre Dam MWD.

Additional conservation or water use efficiency measures or programs practiced by Padre Dam MWD include the following:

- Supervisory Control and Data Acquisition System

  Padre Dam MWD implemented and has operated for many years a Supervisor Control and Data Acquisition (SCADA) system to control, monitor, and collect data regarding the operation of the water system. The major facilities that have SCADA capabilities are the water flow control supply sources, transmission network, pumping stations, and water storage reservoirs. The SCADA system allows for many and varied useful functions. Some of these functions provide for operating personnel to monitor the water supply source flow rates, reservoir levels, turn on or off pumping units, etc. The SCADA system aids in the prevention of water reservoir overflow events and increases energy efficiency.

- Water Conservation Ordinance

  California Water Code section 375 et seq. permit public entities which supply water at retail to adopt and enforce a water conservation program to reduce the quantity of water used by the people therein for the purpose of conserving water supplies of such public entity. The Padre Dam MWD Board of Directors established a comprehensive water conservation program pursuant to California Water Code section 375 et seq., based upon the need to conserve water supplies and to avoid or minimize the effects of any future shortage. A water shortage could exist based upon the occurrence of one or more of the following conditions:

1. A general water supply shortage due to increased demand or limited supplies.
2. Distribution or storage facilities of the Water Authority or other agencies become inadequate.
3. A major failure of the supply, storage, and distribution facilities of Metropolitan WD, Water Authority, and/or Padre Dam MWD.

The Padre Dam MWD water conservation ordinance finds and determines that the conditions prevailing in the San Diego County area require that the available water resources be put to maximum beneficial use to the extent to which they are capable, and that the waste or unreasonable use, or unreasonable method of use, of water be prevented and that the conservation of such water be encouraged with a view to the maximum reasonable and beneficial use thereof in the interests of the people of Padre Dam MWD and for the public welfare.

6.2 Projected Single Dry Year

Table 9 presents the forecasted balance of water demands and required supplies for the Padre Dam MWD area under average or normal year conditions. The total actual demand for FY 2025 was projected at 14,586 acre feet. The demand for FY 2025 is the same as the supply which is 14,586 AFY. Unaccounted for demands for the project (42 AFY) will be supplied by the Water Authority's Accelerated Forecasted Growth component.

Table 9
Single Dry Year Supply and Demand Comparison (AFY)

	2025	2030	2035	2040	2045
Water Authority Supplies	14,586	15,751	16,819	17,685	18,148
Water Authority Accelerated Forecast Growth Increment	42	42	42	42	42
Supply Totals [(1)]	**14,628**	**15,793**	**16,861**	**17,727**	**18,190**
Padre Dam MWD Demands	14,586	15,751	16,819	17,685	18,148
TCSP Project Additional Demands	42	42	42	42	42
Demand totals[(2)(3)]	**14,628**	**15,793**	**16,861**	**17,727**	**18,190**
Difference[(4)]	**0**	**0**	**0**	**0**	**0**

(1) Under single dry year conditions, the Water Authority is projecting to use 328,700 AFY in the Water Authority supplies (IID Water Transfer, AAC and CC Lining Projects, and Carlsbad Desalination Plant), a range of 126,490 AFY to 209,901 AFY in verifiable member agency supplies (surface supplies have been reduced), and a range of 336,232 AFY to 338,000 AFY in Metropolitan supplies (Metropolitan supplies have increased) from 2025 through 2045. In addition, between 194,457 to 236,181 AFY in demands will be met through potential surplus supply or management actions
(2) Water Authority methodology was used to select the single dry year scenario.
(3) Projections assume an increase based on the percentages listed in the Padre Dam MWD 2020 UWMP.
(4) Net difference of zero, which assumes that conservation and local supply sources will be used to

Padre Dam MWD acknowledges the ever-present challenge of balancing water supply with demand and the inherent need to possess a flexible and adaptable water supply

implementation strategy that can be relied upon during normal and dry weather conditions. The responsible regional water supply agencies have and will continue to adapt their resource plans and strategies to meet climate, environmental, and legal challenges so that they may continue to provide water supplies to their service areas. The regional water suppliers along with Padre Dam MWD fully intend to maintain sufficient reliable supplies through the 20-year planning horizon under normal, single, and multiple dry year conditions to meet projected demand of the Project, along with existing and other planned development projects within the Padre Dam MWD service area.

This WSA Report assesses, demonstrates, and documents that sufficient water supplies are planned for and are intended to be acquired, as well as the actions necessary and status to develop these supplies, to meet projected water demands of the Project as well as existing and other reasonably foreseeable planned development projects within the Padre Dam MWD for a 20-year planning horizon, in normal and in single and multiple dry years.

6.3 Projected Multiple Dry Year Supply and Demand

Table 10 shows projected supply and demand totals for the multiple dry year assessment in five-year increments for the period 2025 through 2045. Imported and recycled water supplies match those previously provided in the 2020 UWMP. The Accelerated Forecasted Growth component of the Water Authority's 2020 UWMP is projected to provide additional supply capacity to the Padre Dam MWD. A portion this excess amount is available to supply the additional 41.81 AFY Project demand, as confirmed by the Water Authority. (See Appendix D for confirmation from the Water Authority.) Demands during the multiple dry year analysis are projected to remain the same as in normal years and do not account for potential demand mitigation that can be implemented by the Padre Dam MWD to reduce demands in drought conditions. Therefore, the demand projections in Table 10 are conservative.

Table 10
Projected Multiple-Dry Year Supply and Demand Comparison (2025-2045, AFY)

		Supply and Demand Comparison – Multiple Dry Year Events				
		2025	**2030**	**2035**	**2040**	**2045**
1st Year	Water Authority Supply	14,586	15,751	16,819	17,685	18,148
	Water Authority AFG Increment	42	42	42	42	42
	Supply Totals	**14,628**	**15,793**	**16,861**	**17,727**	**18,190**
	Padre Dam MWD Demands	14,586	15,751	16,819	17,685	18,148
	TCSP Project Additional Demands	42	42	42	42	42
	Demand totals	**14,628**	**15,793**	**16,861**	**17,727**	**18,190**
	Difference	**0**	**0**	**0**	**0**	**0**
2nd Year	Water Authority Supply	14,732	15,909	16,987	17,862	18,371
	Water Authority AFG Increment	42	42	42	42	42
	Supply Totals	**14,774**	**15,951**	**17,029**	**17,904**	**18,413**
	Padre Dam MWD Demands	14,732	15,909	16,987	17,862	18,371

		Supply and Demand Comparison – Multiple Dry Year Events				
		2025	**2030**	**2035**	**2040**	**2045**
	TCSP Project Additional Demands	42	42	42	42	42
	Demand totals	**14,774**	**15,951**	**17,029**	**17,904**	**18,413**
	Difference	**0**	**0**	**0**	**0**	**0**
3rd Year	Water Authority Supply	14,879	16,068	17,157	18,040	18,513
	Water Authority AFG Increment	42	42	42	42	42
	Supply Totals	**14,921**	**16,110**	**17,199**	**18,082**	**18,555**
	Padre Dam MWD Demands	14,879	16,068	17,157	18,040	18,513
	TCSP Project Additional Demands	42	42	42	42	42
	Demand totals	**14,921**	**16,110**	**17,199**	**18,082**	**18,555**
	Difference	**0**	**0**	**0**	**0**	**0**
4th Year	Water Authority Supply	15,028	16,228	17,329	18,221	18,698
	Water Authority AFG Increment	42	42	42	42	42
	Supply Totals	**15,070**	**16,270**	**17,371**	**18,263**	**18,740**
	Padre Dam MWD Demands	15,028	16,228	17,329	18,221	18,698
	TCSP Project Additional Demands	42	42	42	42	42
	Demand totals	**15,070**	**16,270**	**17,371**	**18,263**	**18,740**
	Difference	**0**	**0**	**0**	**0**	**0**
5th Year	Water Authority Supply	15,178	16,391	17,502	18,403	18,885
	Water Authority AFG Increment	42	42	42	42	42
	Supply Totals	**15,220**	**16,433**	**17,544**	**18,445**	**18,927**
	Padre Dam MWD Demands	15,178	16,391	17,502	18,403	18,885
	TCSP Project Additional Demands	42	42	42	42	42
	Demand totals	**15,220**	**16,433**	**17,544**	**18,445**	**18,927**
	Difference	**0**	**0**	**0**	**0**	**0**

Section 7 – Conclusion: Availability of Sufficient Supplies

The Water Authority and Metropolitan WD have an established process that ensures supplies are being planned to meet future growth. Any annexations and revisions to established land use plans are captured in the San Diego Association of Governments (SANDAG) updated forecasts for land use planning, demographics, and economic projections. SANDAG serves as the regional, intergovernmental planning agency that develops and provides forecast information. The Water Authority and Metropolitan WD update their demand forecasts and supply needs based on the most recent SANDAG forecast approximately every five years to coincide with preparation of their urban water management plans. Prior to the next forecast update, local jurisdictions with land use authority may require water supply assessment and/or verification reports for proposed land developments that are not within the Padre Dam MWD, Water Authority, or Metropolitan WD jurisdictions (i.e. pending or proposed annexations) or that have revised land use plans with either lower or higher development intensities than reflected in the existing growth forecasts. Proposed land areas with pending or proposed annexations, or revised land use plans, typically result in creating higher demand and supply requirements than previously anticipated. Padre Dam MWD, Water Authority, and Metropolitan WD next demand forecast and supply requirements and associated planning documents would then capture any increase or decrease in demands and required supplies as a result of revised land use planning decisions such as the Project. In anticipation of these development yields water demand and supply planning information for the Project will be incorporated into and become a permanent part of their water resources planning processes and documents.

Metropolitan WD's Integrated Resources Plan (IRP) identifies a mix of resources (imported and local) that, when implemented, will provide 100 percent reliability for full-service demands through the attainment of regional targets set for conservation, local supplies, State Water Project supplies, Colorado River supplies, groundwater banking, and water transfers. The 2020 update to the IRP includes a planning buffer supply intended to mitigate against the risks associated with implementation of local and imported supply programs and for the risk that future demands could be higher than projected. The planning buffer identifies an additional increment of water that could potentially be developed when needed and if other supplies are not fully implemented as planned. As part of implementation of the planning buffer, Metropolitan WD periodically evaluates supply development, supply conditions, and projected demands to ensure that the region is not under or over developing supplies. Managed properly, the planning buffer will help ensure that the southern California region, including San Diego County, will have adequate water supplies to meet long-term future demands.

In Section ES-5 of their 2020 RUWMP, Metropolitan WD states that they have supply capacities that would be sufficient to meet expected demands from 2025 through 2045. Metropolitan WD has plans for supply implementation and continued development of a diversified resource mix including programs in the Colorado River Aqueduct, State Water Project, Central Valley Transfers, local resource projects, and in-region storage that enables the region to meet its water supply needs. Metropolitan WD's 2020 RUWMP identifies

potential reserve supplies in the supply capability analysis which could be available to meet the unanticipated demands.

The County Water Authority Act, Section 5 subdivision 11, states that the Water Authority "as far as practicable, shall provide each of its member agencies with adequate supplies of water to meet their expanding and increasing needs."

As part of preparation of a written water supply assessment report, an agency's shortage contingency analysis should be considered in determining sufficiency of supply. Section 11 of the Water Authority's 2020 Updated UWMP contains a detailed shortage contingency analysis that addresses a regional catastrophic shortage situation and drought management. The analysis demonstrates that the Water Authority and its member agencies, through the Emergency Response Plan, Emergency Storage Project, Carlsbad Desalination Project, and Drought Management Plan (DMP) are taking actions to prepare for and appropriately handle an interruption of water supplies. The DMP, adopted in May 2006, provides the Water Authority and its member agencies with a series of potential actions to take when faced with a shortage of imported water supplies from Metropolitan WD due to prolonged drought or other supply shortfall conditions. The actions will help the region avoid or minimize the impacts of shortages and ensure an equitable allocation of supplies.

This WSA Report identifies and describes the processes by which water demand projections for the proposed Project will be fully included in the water demand and supply forecasts of the Urban Water Management Plans and other water resources planning documents of the Water Authority and Metropolitan WD. Water supplies necessary to serve the demands of the proposed Project, along with existing and other projected future users, as well as the actions necessary and status to develop these supplies, have been identified in the WSA Report and will be included in the future water supply planning documents of the Water Authority and Metropolitan WD. The Assessment demonstrates sufficient water supply to serve the Padre Dam MWD, including the increased demand from the Project from 2025 to 2045 in normal, single-, and multiple- dry year scenarios.

This Assessment does not create a right or any entitlement to water service. It is not a commitment to serve the Project but is a review of the Padre Dam MWD's total projected water supplies and an analysis of the Padre Dam MWD's ability to serve the Project based on presently available information. This Assessment and its analyses and conclusions are conditioned in part on the ability of Metropolitan and the Water Authority to continue to supply imported water to meet the Padre Dam MWD's needs. Water service also is contingent upon prompt payment of all charges, rates, and fees as adopted by the Padre Dam MWD from time to time. All landscape plans are required to ensure compliance with applicable requirements, and the applicant/developer will be required to plan and install water efficient devices and landscaping in accordance with applicable Padre Dam MWD development Guidelines and Standards, ordinances, and requirements.

This WSA Report includes, among other information, an identification of existing water supply entitlements, water rights, water service contracts, water supply projects, or

agreements relevant to the identified water supply needs for the proposed Project. This WSA Report assesses, demonstrates, and documents that sufficient water supplies are planned for and are intended to be available over a 20-year planning horizon, under normal conditions and in single and multiple dry years to meet the projected demand of the proposed Project and the existing and other planned development projects to be served by the Padre Dam MWD.

Source Documents

Padre Dam Metropolitan Water District, "Comprehensive Facilities Master Plan Update," June 2022.

Padre Dam Metropolitan Water District, "Padre Dam Municipal Water District 2020 Urban Water Management Plan," June 2021.

San Diego County Water Authority, "Urban Water Management Plan 2020 Update," June 2021.

Metropolitan Water District of Southern California, "2020 Regional Urban Water Management Plan," June 2021.

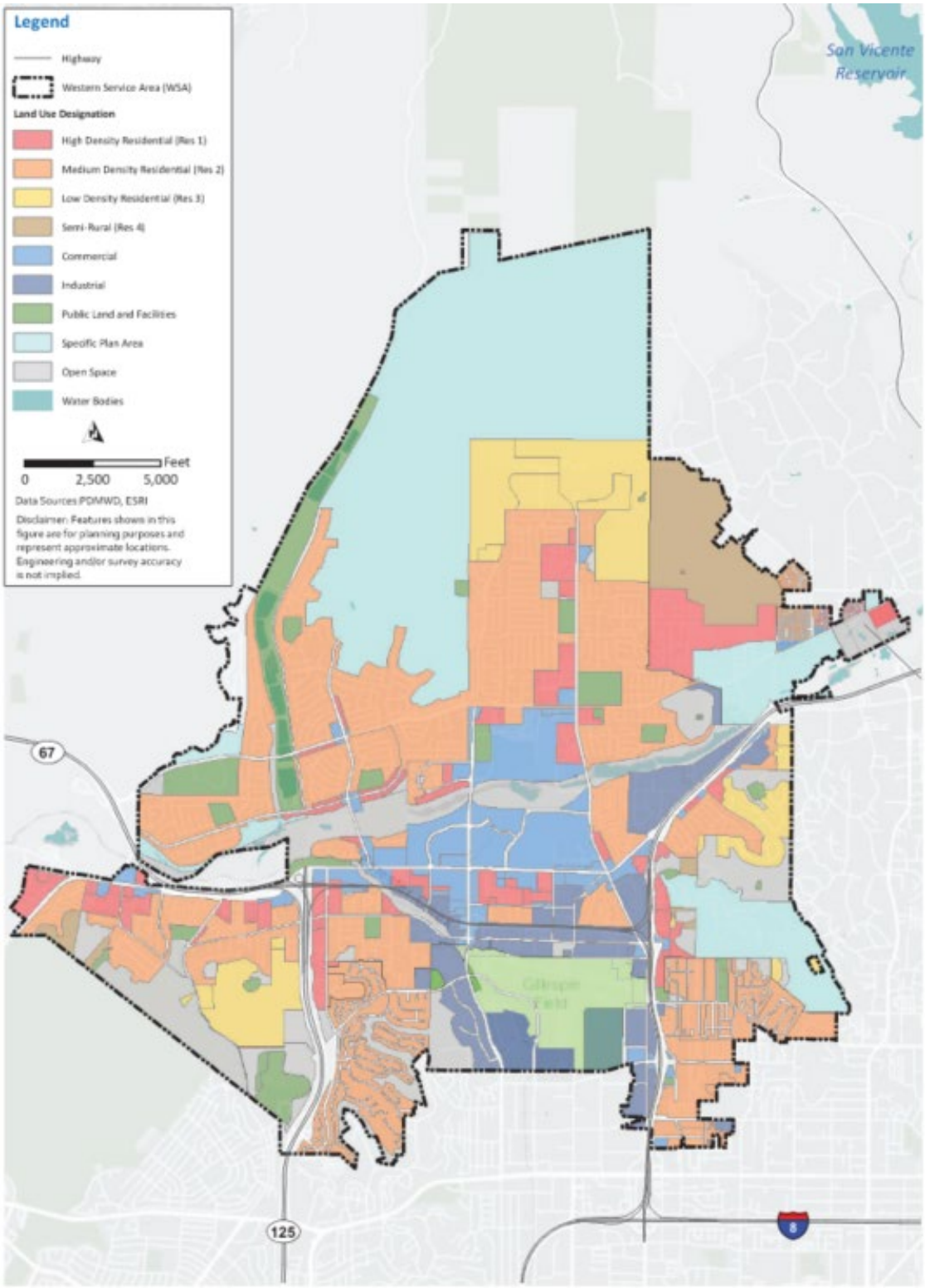
Agreement between the San Diego County Water Authority and Padre Dam Metropolitan Water District regarding Implementation of the East County Regional Treated Water Improvement Program.

Agreement between the San Diego County Water Authority and Padre Dam Metropolitan Water District for Design, Construction, Operation, and Maintenance.

Appendix A

Existing Land Use for Padre Dam MWD in 2020 UWMP

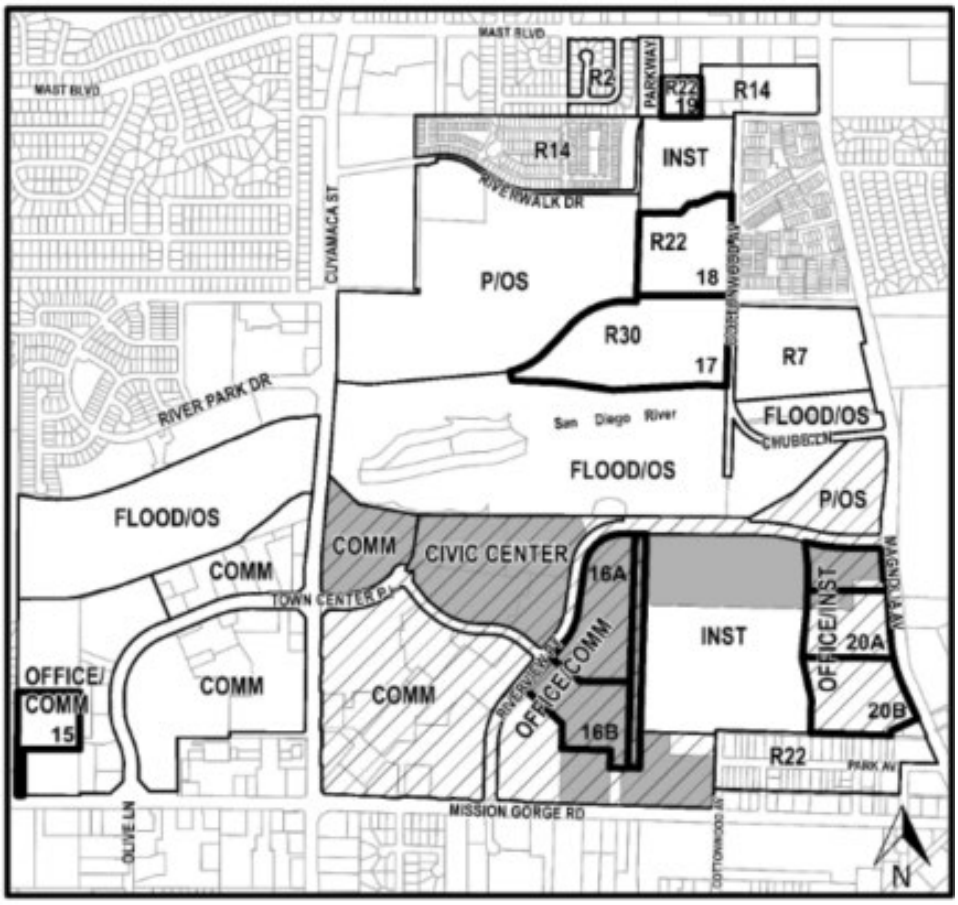
Existing Land Use



Appendix B

Existing Town Center Specific Plan Land Use Designations

Existing Town Center Specific Plan Land Use Designations



R2 – Residential 2-6 DU/AC
R-7 – Residential 7-14 DU/AC
R-14 – Residential 14-22 DU/AC
R-22 – Residential 22-30 DU/AC
R-30 – Residential 30 DU/AC

P – Park
OS – Open Space
Comm – Commercial
Flood – Floodway
Inst – Institutional

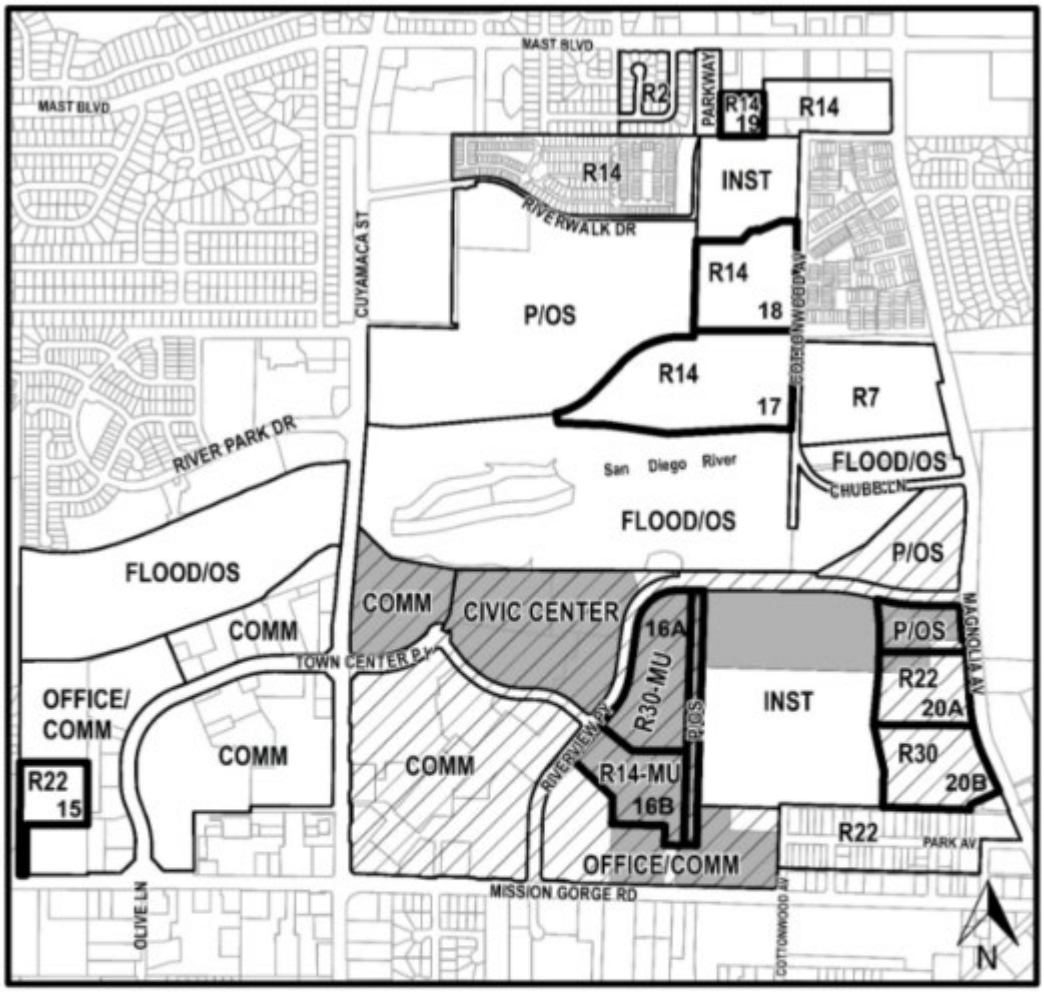
Arts & Entertainment Overlay District

RiverView Office Park Area

Appendix C

Proposed Town Center Specific Plan Land Use Designations

Proposed Town Center Specific Plan Land Use Designations



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P – Park
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Arts & Entertainment Overlay District

RiverView Office Park Area

Appendix D

Water Authority Accelerated Forecasted Growth Request

From:	Crutchfield, Jeremy
To:	lclapp@padre.org; ptubongbanua@padre.org
Cc:	Hammond, Leanne; Rivera, Elisa; Bombardier, Tim; Stephenson, Jeff; Bista, Seevani
Subject:	SDCWA UMWP - Accelerated Forecasted Growth
Date:	Wednesday, July 17, 2024 10:27:59 AM
Attachments:	image001.png Padre Dam AFG Request.pdf

Dear Mr. Clapp:
Thank you for your email regarding the Padre Dam MWD's City of Santee's proposed Town Center Specific Plan Project (Town Center Project). The following is the Water Authority's response to your request to use the Accelerated Forecasted Growth (AFG) component of the Water Authority's 2020 Urban Water Management Plan to meet the unanticipated water demands associated with the Town Center Project

The purpose of the AFG component of the demand forecast is to estimate, on a regional basis, additional demand associated with proposed projects not yet included in local jurisdictions' general plans and to plan for sufficient regional supplies to reliably meet the water demand of those projects.

The Town Center Project identified in your July 8, 2024 letter (attached), meets the criteria for the AFG component of the Water Authority's 2020 UWMP and we are planning to have water supplies to reliably meet the demand associated with the project. Our accounting of the AFG demand component will be adjusted to reflect the additional demand of 41.8 acre-feet per year associated with the proposed project.

In order to accurately account for utilization of the AFG, we request that the Padre Dam MWD send the Water Authority notification of when this project or any other project that utilized the AFG demand component is approved.

Please let me know if you have any questions or want to discuss further.

Regards,

Jeremy

Jeremy Crutchfield
Manager, Water Resources Department
Office (858) 522-6834 | **Cell** (858) 344-3878
Email jcrutchfield@sdcwa.org

San Diego County Water Authority

PADRE DAM
Municipal Water District

July 8, 2024

Seevani Bista
Senior Water Resources Specialist
San Diego County Water Authority
sbista@sdcwa.org

Dear Ms. Bista,

The Padre Dam Municipal Water District (Padre Dam MWD) requests use of the Accelerated Forecasted Growth component of the San Diego County Water Authority's (Water Authority) 2020 Urban Water Management Plan for the City of Santee's proposed Town Center Specific Plan Amendment Project (Project). The Project is a mixed use village consisting of 79 acres located in the central portion of the City of Santee's Town Center Specific Plan. The Project is within the overall TCSP area that includes approximately 608 acres across several land uses and proposes a maximum anticipated development yield on certain properties:

- Arts and Entertainment (2,399,474 SF of non-residential buildings)
- Four Housing Element Sites (1,480 dwelling units)

The Project is bordered generally by Mast Boulevard to the north, Magnolia Avenue to the east, Santee Lakes to the west, and Mission Gorge Road to the south. The Project is currently located within the jurisdictions of Padre Dam MWD and the Water Authority. Please find the attached a vicinity map for your reference.

Most of the proposed development for this project was accounted for in the SANDAG Series 13 forecast, with the majority of the water demand associated with the Project included in the Padre Dam MWD 2020 Urban Water Management Plan. However, changes to the Project resulting in water demands associated with unaccounted growth were not included in the SANDAG Series 13 forecast or the Padre Dam MWD 2020 Urban Water Management Plan. The previously planned water use for the site was 796.4 AFY and changes to land use and development density results in an increase in water demands of 41.8 AFY; this increase would be supplied by the requested use of the Water Authority's Accelerated Forecasted Growth component. A summary of the Project's change in water demand is shown in the table below:

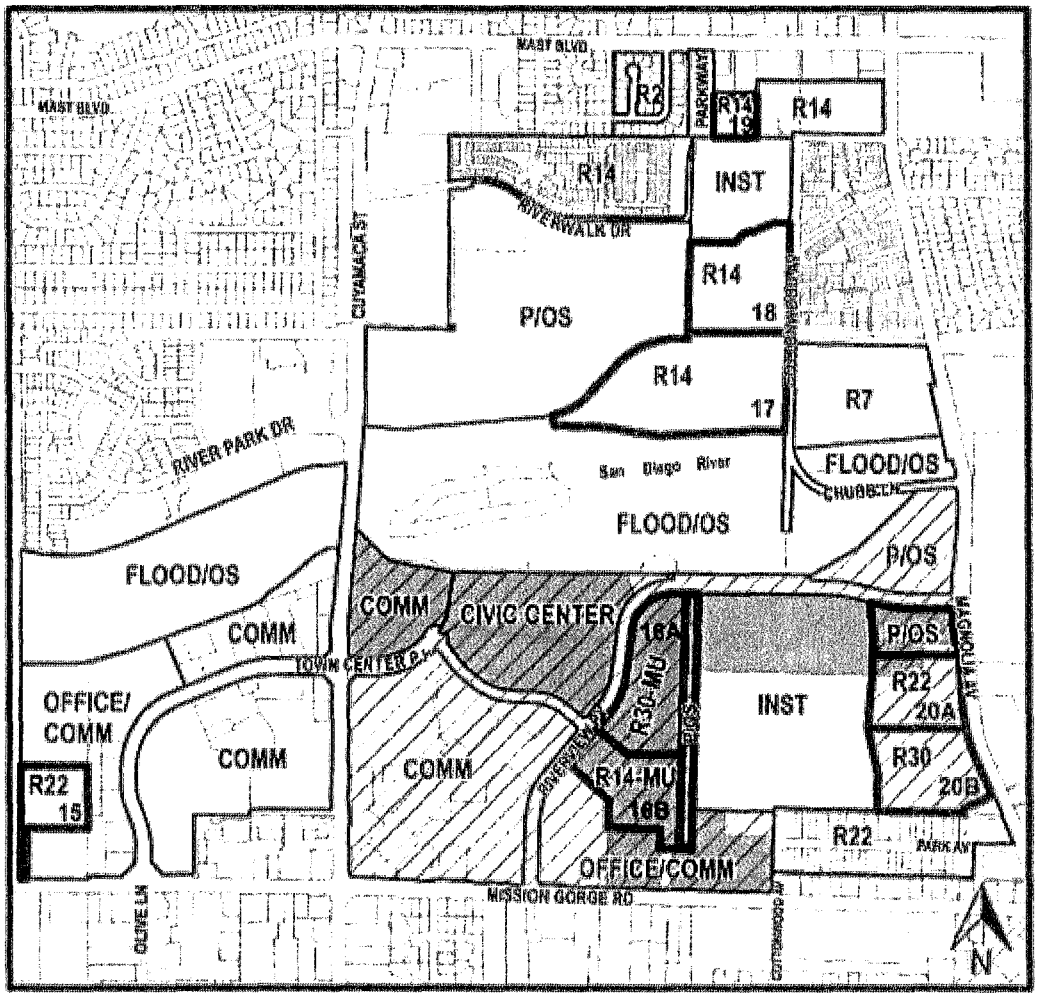
PADRE DAM
Municipal Water District

	Water Demands (Acre-Feet per Year)		
Project	**Initial Planned**	**Revised Projection**	**Increase**
Town Center Specific Plan	796.4	838.2	41.8

Sincerely,

Lewis Clapp
Director of Engineering

Proposed Town Center Specific Plan Land Use Designations



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P – Park
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Arts & Entertainment Overlay District

RiverView Office Park Area

Appendix E

City of Santee Request for Water Supply Assessment

March 18, 2024

Lewis Clapp, Engineering Manager
Padre Dam Municipal Water District
9300 Fanita Pkwy, Santee, CA 92071

Subject: Request for Water Supply Assessment

Dear Mr. Clapp:

The City of Santee is preparing a comprehensive update to its Town Center Specific Plan (TCSP), including updates to the Arts and Entertainment Neighborhood, and development of concept plans for four strategic Housing Element sites (Figure 1). The update would allow development to occur in the TCSP area shown in Figure 1 per the projections provided in the tables included on the following page. Table 1 represents the complete buildout of the TCSP; the projections for the AEN (Table 2) and four Housing Element sites (Table 3) are sub-geographies fully contained within the TCSP area and Table 1 projections. These development potentials are consistent with adopted plans and zoning, including the recently approved Housing Element, approved in October 2022. However, we understand not all of this development may have been anticipated in the most recent Urban Water Management Plan.

Because the project is located within the Padre Dam Municipal Water District service area and the projected buildout may not have been previously considered by the District, we are requesting a Water Supply Assessment in accordance with California Public Resources Code Section 15155 and Water Code Section 10910 - 10915. Please include in your analysis a discussion of whether the recent applicable Urban Water Management Plan addresses the proposed project water use, availability of both the potable and recycled water supplies during normal, single dry, and multiple dry water years during a 20-year projection, and potential impacts of its use on water availability and reliability.

Staff is prepared to work with you to ensure you have the information necessary to complete the assessment in a timely manner. Currently, we anticipate releasing the public review draft EIR in June 2024, and the requested Water Supply Assessment should be included within the public review draft EIR. If you have any questions, please contact me at 619-258-4100 ext. 160.

Sincerely,

M. Coyne

Michael Coyne
Principal Planner

TCSP Area Development Potential Tables

Table 1
TCSP Buildout Summary

	Existing Non-residential Buildings (SF)	Existing Dwelling Units	Potential Non-residential Buildings (SF)	Minimum Allowable Number of Dwelling Units	Maximum Allowable Number of Dwelling Units	State Density Bonus Assumptions	Total Dwelling Units
TCSP Totals	1,756,567	814	3,905,431	2,622	3,441	513	3,954

Table 2
Arts and Entertainment Neighborhood Buildout Summary

	Existing Non-residential Buildings (SF)	Existing Dwelling Units	Potential Non-residential Buildings (SF)	Minimum Allowable Number of Dwelling Units	Maximum Allowable Number of Dwelling Units	State Density Bonus Assumptions	Total Dwelling Units
AEN Totals	607,371	300	2,399,474	1,225	1,482	298	1,780

Table 3-3
Four Housing Element Sites Buildout Summary

Site	Land Use Designation	Allowed Density Range	Existing Non-residential Buildings (S.F.)	Existing Dwelling Units	Potential Non-Residential Buildings (S.F.)	Mixed Use Overlay Assumption	Minimum Allowable Number of Dwelling Units	Maximum Allowable Number of Dwelling Units	State Density Bonus Assumption	Total Dwelling Units
16A	TC-R-30	30-36 DU/AC	N/A	N/A	181,482	10%	333	400	120	520
16B	TC-R-14	14-22 DU/AC	N/A	N/A	90,012	10%	121	189	N/A	189
20A	TC-R-22	22-30 DU/AC	N/A	N/A	118,157	10%	171	233	70	303
20B	TC-R-30	30-36 DU/AC	N/A	N/A	N/A	N/A	300	360	108	468
HE Sites Totals	**N/A**	**N/A**	**N/A**	**N/A**	**389,651**	**N/A**	**925**	**1,182**	**298**	**1,480**

- Proposed Santee Town Center Specific Plan
- Proposed Arts and Entertainment Neighborhood
- Site 16A
- Site 16B
- Site 20A
- Site 20B
- Current Santee Town Center Specific Plan
- Current Art and Entertainment Boundary

0 800 Feet

Source: Aerial (SanGIS, 2023)

HELIX Environmental Planning

Project Boundaries

Figure 1