

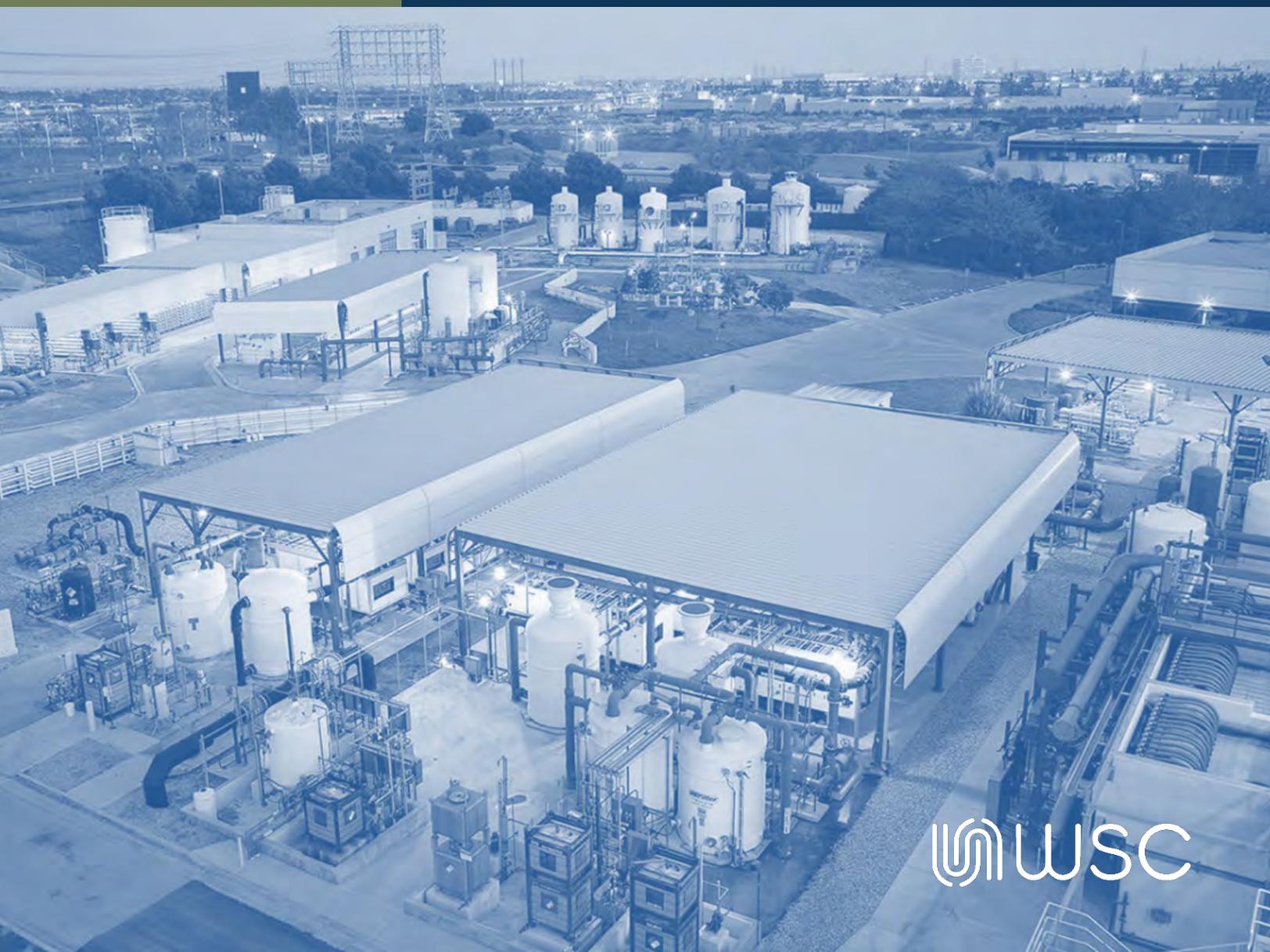


Urban Water Management Plan

Draft

MAY 2021

WEST BASIN MUNICIPAL WATER DISTRICT





WEST BASIN MUNICIPAL WATER DISTRICT

2020 Urban Water Management Plan

MAY 25, 2021



Prepared by Water Systems Consulting, Inc.



MESSAGE FROM THE BOARD OF DIRECTORS

For nearly 75 years, the West Basin Municipal Water District (West Basin) has dedicated itself to providing a cost-effective, safe, and reliable water supply to the coastal areas of Los Angeles County. Through the years, West Basin has strategically invested in projects and programs that have expanded and diversified its water supply portfolio to meet the ever-changing needs of the region's diverse water users. West Basin continues to focus its efforts on meeting the region's ongoing water demands through the District's Water for Tomorrow Program. Water for Tomorrow — which aims to expand water recycling, maximize conservation, explore ocean water desalination, and research innovative technologies — will allow West Basin to continue building upon its local water resources to ensure a reliable supply of water for future generations.

The West Basin Board is pleased to submit this 2020 Urban Water Management Plan to the California Department of Water Resources. The plan provides a detailed summary of all current and projected water supplies and demands within West Basin's service area. The Plan further demonstrates the water reliability of West Basin's water supplies for the next 25 years and provides a comprehensive overview of West Basin's short- and long-term programs, partnerships, and priorities.

West Basin Board of Directors

Division I — Harold C. Williams

Cities of Carson, Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills Estates, and Rolling Hills, and unincorporated Los Angeles County area of Rancho Dominguez

Division II — Gloria D. Gray

City of Inglewood, and unincorporated Los Angeles County areas of Lennox, South Ladera Heights, West Athens, and Westmont

Division III — Desi Alvarez

Cities of Hermosa Beach, Lomita, Manhattan Beach, and Redondo Beach, and a portion of Torrance

Division IV — Scott Houston

Cities of Culver City, El Segundo, Malibu, and West Hollywood, and unincorporated Los Angeles County areas of Del Aire, Lennox, Marina del Rey, North Ladera Heights, Topanga, View Park, Windsor Hills, and Wiseburn

Division V — Donald L. Dear

Cities of Gardena, Hawthorne, and Lawndale, and unincorporated Los Angeles County area of El Camino Village



Harold C. Williams
Division I



Gloria D. Gray
Division II



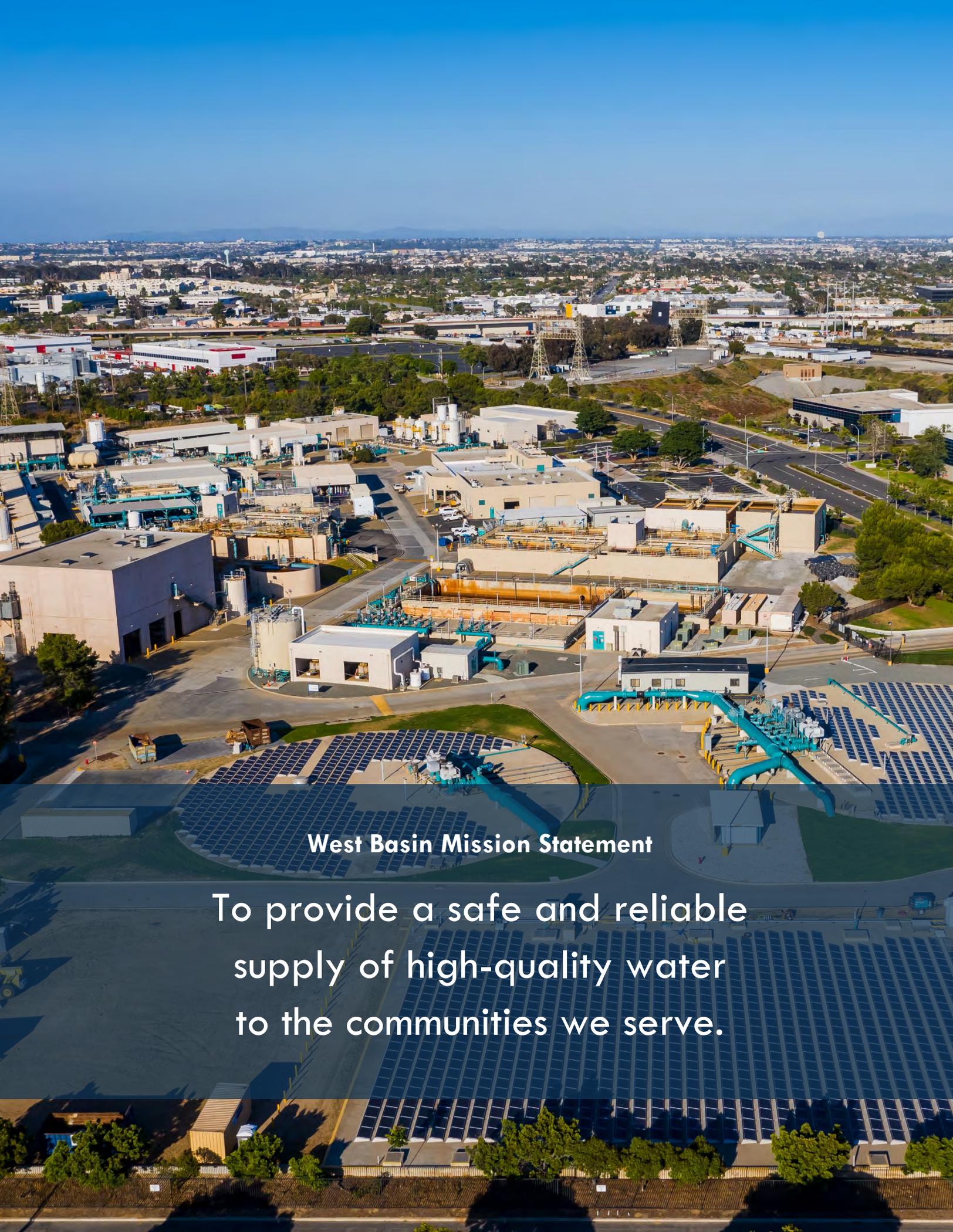
Desi Alvarez
Division III



Scott Houston
Division IV



Donald L. Dear
Division V



West Basin Mission Statement

To provide a safe and reliable supply of high-quality water to the communities we serve.

ACKNOWLEDGMENTS

The 2020 Urban Water Management Plan prepared by Water Systems Consulting, Inc. in conjunction with Maddaus Water Management, Inc. The primary authors are listed below.



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Water Systems Consulting, Inc. would like to acknowledge the significant contributions of West Basin Municipal Water District, including the following staff.



Edward Caldwell
Matthew Veeh

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ACRONYMS & ABBREVIATIONS

°F	Degrees Fahrenheit
AB	Assembly Bill
AF	Acre Foot
AFY	Acre Feet per Year
AMI	Advanced Metering Infrastructure
CalWEP	California Water Efficiency Partnership
CEQA	California Environmental Quality Act
CII	Commercial, Industrial, and Institutional
CIMIS	California Irrigation Management Irrigation System
CIP	Capital Improvement Plan
CWC	California Water Code
DDW	SWRCB Division of Drinking Water
DPR	Direct Potable Reuse
DRA	Drought Risk Assessment
DWR	California Department of Water Resources
ECLWRF	Edward C. Little Water Recycling Facility
EIR	Environmental Impact Report
FY	Fiscal Year
GPCD	Gallons per Capita per Day
IPR	Indirect Potable Reuse
IRP	Integrated Resources Plan
kWh	Kilowatt-hour
LA	Los Angeles
LADWP	Los Angeles Department of Water and Power
LAX	Los Angeles International Airport
LIEP	Landscape Irrigation Efficiency Program
MF	Microfiltration
MGD	Million Gallons per Day
MWELO	Model Water Efficiency Landscape Ordinance
PFAS	polyfluoroalkyl substances
RHNA	Regional Housing Needs Assessment
RO	Reverse Osmosis
RW	Recycled Water
RWMP	Recycled Water Master Plan
SANDAG	San Diego Association of Governments
SBCCOG	South Bay Cities Council of Governments

SBESC	South Bay Environmental Services Center
SBX7-7	Senate Bill 7 of Special Extended Session 7
SCAG	Southern California Association of Governments
SWP	State Water Project
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
UF	Ultrafiltration
USBR	United States Bureau of Reclamation
USGS	United States Geological Survey
UWMP	Urban Water Management Plan
UWMP Act	Urban Water Management Planning Act
WBMWD	West Basin Municipal Water District
WIN	Water Independence Now
WPRD	Water Policy and Resources Development
WRD	Water Replenishment District
WSAP	Water Supply Allocation Plan
WSCP	Water Shortage Contingency Plan
WSDM	Water Surplus and Drought Management Plan
WUCA	Water Utility Climate Alliance
WUE	Water Use Efficiency

Executive Summary

This section summarizes the 2020 Urban Water Management Plan (UWMP) for the West Basin Municipal Water District (West Basin). This summary describes the fundamental purposes of the UWMP, including water service reliability, future challenges, and strategies for managing risks to water reliability.

West Basin was created in 1947 to reduce groundwater over-pumping and to make local water supplies more reliable through new sources of water — notably, providing imported water from the Metropolitan Water District of Southern California (Metropolitan) as replenishment supplies to local retail agencies.

To increase water supply reliability for its customers, West Basin has invested in the following programs:

- Recycled water supplies for irrigation, industrial use, and groundwater replenishment
- Cost-effective water efficiency and conservation
- Desalinated groundwater for potable use
- District-wide water education and outreach

West Basin is a recognized leader in the production of recycled water, conservation, and education programs.

This UWMP was prepared in compliance with California Water Code requirements for UWMPs following guidance from the California Department of Water Resources (DWR). This UWMP is intended to be the long-term water resources planning reference for West Basin.

IN THIS SECTION

- Water Demand Projections
- Water Sources
- Water Supply Reliability
- Outreach and Engagement

Purpose and Organization of the Plan

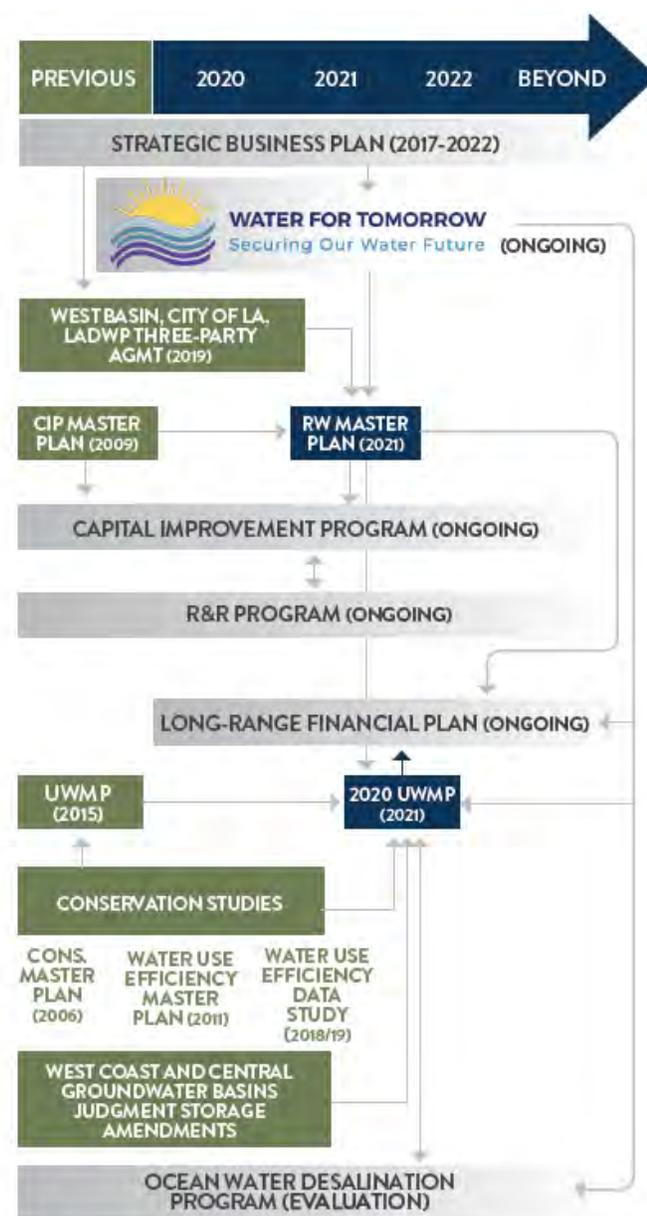
This UWMP provides DWR with a detailed summary of present and future water resources and demands within West Basin’s service area. It also assesses West Basin’s water resource needs. Specifically, the UWMP provides water supply planning for a 25-year planning period in five-year increments and identifies water supplies needed to meet existing and future demands. The demand analysis identifies supply reliability under three hydrologic or rainfall conditions: an average (or normal) year, a single-dry year, and multiple-dry years.

West Basin previously prepared UWMPs for 2005, 2010, and 2015, according to the five-year planning cycle. This 2020 UWMP serves as an update to the 2015 UWMP and complies with new requirements and regulations. **Figure ES-1** shows West Basin’s previous and ongoing planning efforts and their relation to the 2020 UWMP update.

These include:

- Recycled Water Master Plan Update
- Capital Improvement Program
- Infrastructure Rehabilitation and Replacement Program
- Long-Range Financial Plan
- Strategic Business Plan
- Water for Tomorrow Program
- Ocean Water Desalination Program

Figure ES-1: Previous and Ongoing Planning Efforts



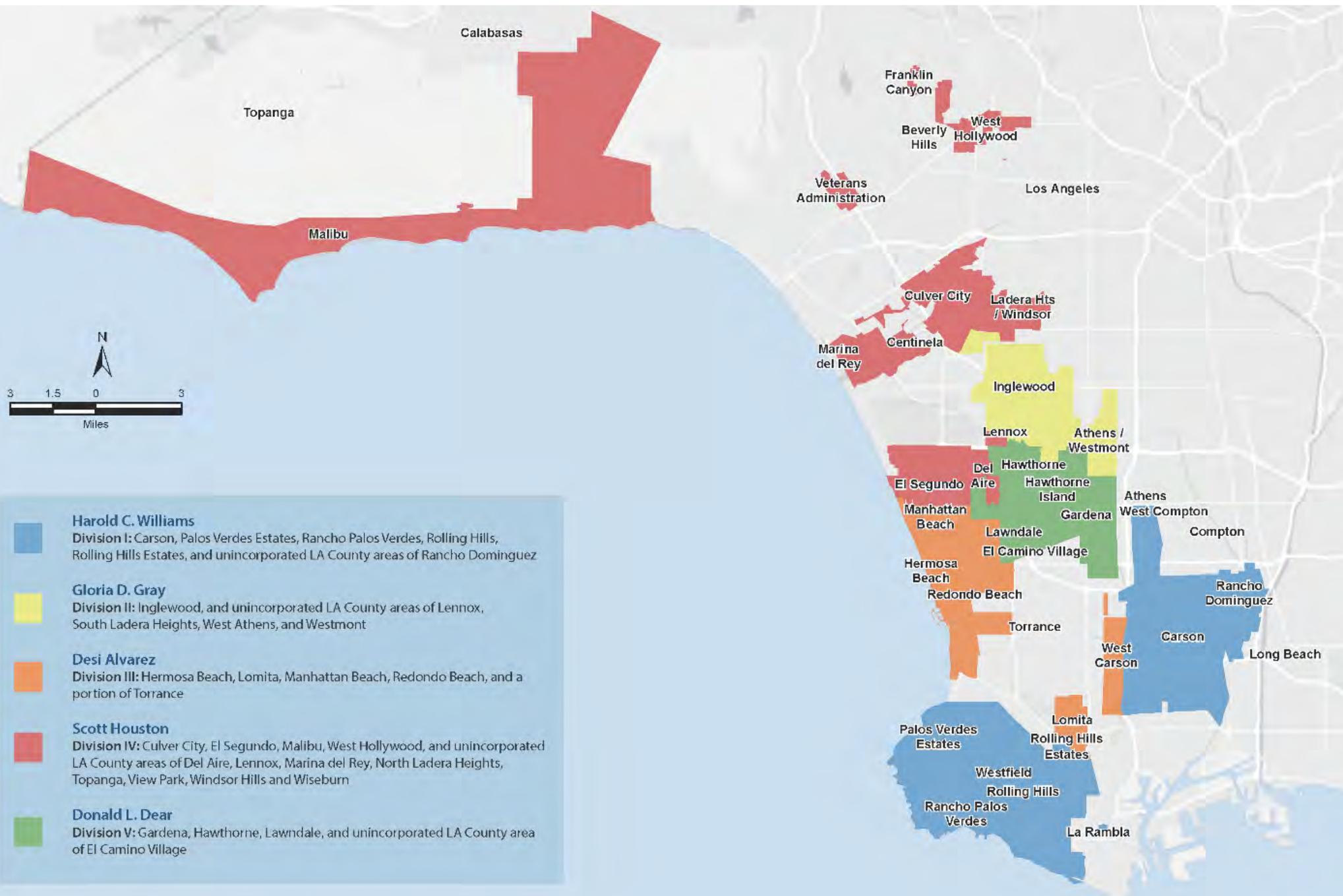


Service Area

West Basin serves nearly 900,000 residents in an approximately 185-square-mile service area in coastal, southwest Los Angeles County. The District provides wholesale potable water to 17 cities through three investor-owned utilities, four municipal water departments, and one county waterworks district. In addition, West Basin supplies recycled water to more than 450 metered connections for municipal, commercial, and industrial use, as well as for injection into the West Coast Basin Barrier to prevent seawater intrusion and replenish the West Coast Groundwater Basin.

West Basin is governed by an elected five-member Board of Directors, and each director serves a designated division of the District. The Board of Directors guides the mission and policy of West Basin. Each director serves a four-year term once elected. See **Figure ES-2** for the District's service area boundaries.

Figure ES-2: West Basin Service Area



Outreach and Engagement

West Basin is a wholesale water agency that is fully dependent on Metropolitan for its imported water supplies. Therefore, West Basin has closely coordinated with Metropolitan during the preparation of its UWMP. West Basin attended multiple information and collaboration meetings with Metropolitan while preparing both Metropolitan's and West Basin's UWMPs.

West Basin recognized that working in close coordination with its retail agencies, Metropolitan, and other relevant stakeholders would be key to the development of its UWMP.

West Basin collaborated with many agencies throughout the process to develop and update this planning document. The District hosted a stakeholder workshop on March 4, 2021, prior to the Draft UWMP public review period. At the workshop, West Basin provided its retail agencies with consistent information for use in the development of their own 2020 UWMPs and supplied additional information upon request. Other meetings were held throughout the planning process with individual retailers and Metropolitan to align each UWMP. In addition, West Basin provided a public review period for the Draft UWMP and held a public hearing on June 10, 2021, to solicit input from stakeholders and other interested parties.

WEST BASIN
Municipal Water District

2020 Urban Water Management Plan
Update for Retailers
March 4, 2021

www.westbasin.org

Agenda

1. West Basin Overview
2. 2020 UWMP Overview
3. Conservation Update
4. Demand Projections
5. Supply Reliability
6. Water Shortage Contingency Plan
7. Next Steps



Water Demands

Total water use within West Basin's service area includes direct retail demand from its retail agencies (retail demand) for potable and recycled water, as well as groundwater replenishment demand (replenishment demand) from the Water Replenishment District (WRD). Retail demand is defined as a population's direct consumption, or all municipal (residential, firefighting, parks, etc.) and industrial uses. Replenishment demand is the supply needed to maintain the groundwater operations and seawater barriers in the West Coast Basin and is not used directly by residents, municipalities, or industries.

Retail Demands

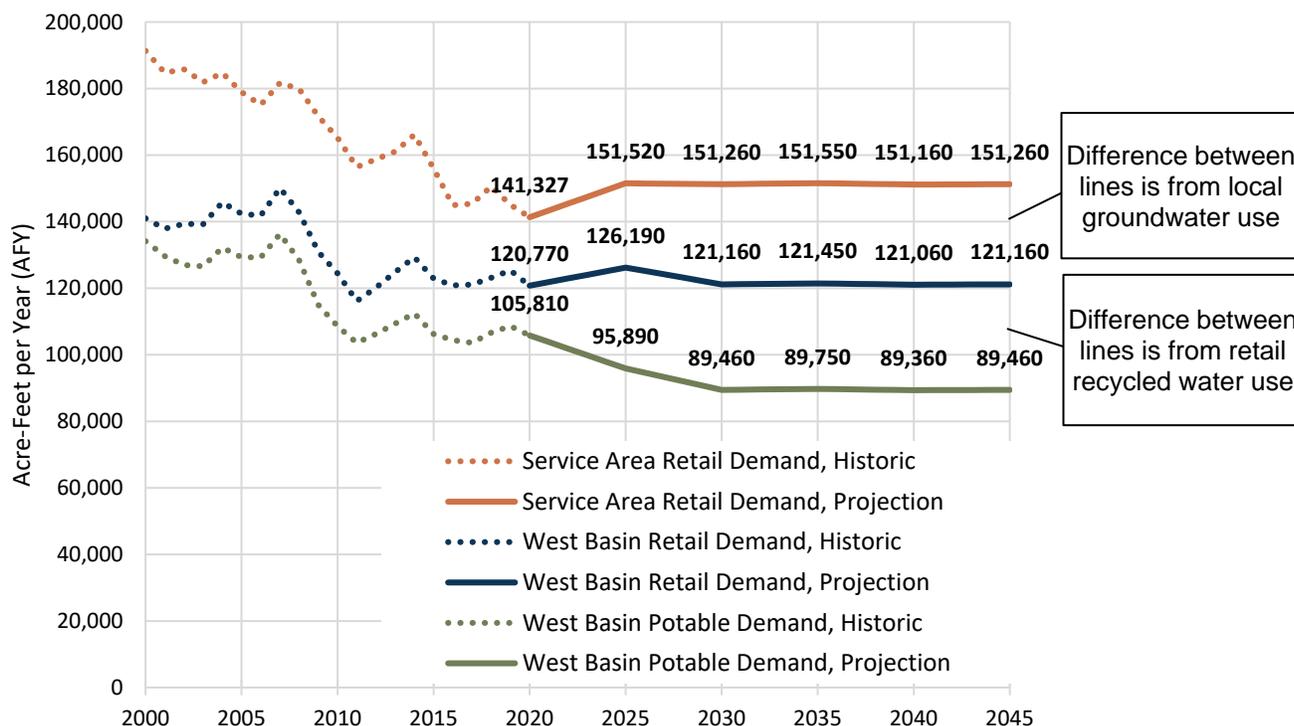
Water use in the West Basin service area has been trending lower in recent years after decades of historical increases. This trend toward more efficient water use is due in large part to the continuous efforts by West Basin, its retail agencies, and residential and commercial customers to promote conservation and recycled water use.

West Basin’s retail demands can be grouped into three types:

1. **West Basin service area retail demand:** Total retail demand within the West Basin service area, including demands met by supplies that are not provided by West Basin, such as local groundwater
2. **West Basin retail demand:** Retail demand within the West Basin service area that is met by West Basin supplies, excluding demands met by retailers’ groundwater supplies
3. **West Basin potable demand:** West Basin retail demand met by West Basin potable water supplies, excluding demand met by recycled water

As shown in **Figure ES-3**, West Basin service area retail demand is projected to increase slightly through 2025 and level off through 2045. Demand is expected to remain flat even during continued population growth due to ongoing water use efficiency and conservation efforts. West Basin retail demand, which excludes projected groundwater pumping from total service area retail demand, is expected to remain relatively flat, as local pumpers are projected to increase groundwater pumping to historical levels through 2030. West Basin potable demand is projected to decrease through 2030 and then level off given expansion of the West Basin recycled water program. Both groundwater and recycled water projections are discussed further in the next section. As shown in **Figure ES-3**, potable demands, which are predominantly met with imported water from Metropolitan, are projected to decrease from 75% of total service area retail demand in 2020 to 59% in 2030.

Figure ES-3: Demand Projections: Service Area Retail, West Basin Retail, and West Basin Potable



Replenishment Projections

West Basin currently delivers water to WRD for replenishment of the West Coast Groundwater Basin at two locations:

West Coast Basin Barrier

West Basin supplies advanced treated recycled water and imported water.

Dominguez Gap Barrier

West Basin supplies imported water only.

West Basin has delivered an average of approximately 19,200 acre-feet per year (AFY) of total replenishment water during the past decade and, as shown in **Table ES-1**, projects to substantially increase its replenishment supplies by 2045. This is aligned with WRD's goals to expand replenishment activities in the West Coast Groundwater Basin through expanded injection at the West Coast Basin Barrier and new groundwater augmentation projects — all of which will be supplied exclusively with recycled water.

Table ES-1: Current and Projected Replenishment Groundwater Supply (AFY)

REPLENISHMENT SUPPLY SOURCE	2020	2025	2030	2035	2040	2045
Imported Water	6,950	-	-	-	-	-
Recycled Water	13,084	20,000	29,000	39,000	44,600	44,600
Total	20,034	20,000	29,000	39,000	44,600	44,600

Water Efficiency and Conservation

Since the severe drought of the early 1990s, West Basin has been a leader in implementing progressive water conservation programs to help limit water demand. West Basin's eight retail agencies also maintain conservation programs to reduce water waste and manage customer demand. West Basin programs strongly emphasize education and the distribution of rebate incentives and water-saving devices. These proactive programs, in conjunction with passive conservation measures such as modifications to city ordinances, have resulted in significant reductions in retail water use within West Basin's service area. This is demonstrated in 2020 per capita water use estimates.

The Water Conservation Bill of 2009 (Senate Bill [SB] X7-7) required individual retail water suppliers to set water conservation targets for 2020 to support an overall State goal of reducing urban potable per capita water use by 20% by 2020. As a regional wholesale water supply agency, West Basin is not required to report baseline or target demands. However, West Basin's investments in water conservation have helped its retailers achieve their individual SB X7-7 water use reduction targets. The 2020 target for average per capita water use across all West Basin retail agencies, weighted by West Basin retail agency population, is roughly 200 gallons per capita per day (GPCD). This compares to the actual 2020 weighted average per capita water use of roughly 150 GPCD.

To promote conservation and reduce water supply demand, West Basin offers several water conservation programs, which together represent one form of the District's demand management measures. These programs are in addition to permanent State-mandated restrictions that were implemented in response to the most recent statewide drought.

West Basin’s current water conservation programs are described in detail in Chapter 9.

WEST BASIN’S CURRENT WATER CONSERVATION PROGRAMS



Cash For Kitchens

Conducted **146 water efficiency surveys** and installed water efficient devices that will save over **4 million gallons of water** during device lifetimes.



Rain Barrel Distribution Programs

Over **13,000 barrels** distributed since 2013.

Grass Removal Rebates

Processed **2,782 applications** for grass replacement projects since 2015.



Change & Save Program

Provided **1,000 efficiency assessments**, **1,000 water-saving device kits**, and more than **100 high-efficiency clothes washer rebates** in 2020-2021.



MalibuSmart & TopangaSmart

Invested over **\$1 million** from State grants for on-site consultations, increased rebates, increased incentives, and free water efficiency and firescaping classes and webinars.



California Friendly Landscape Classes and “Hands-On-Workshops”

Landscape Irrigation Efficiency Program

Ocean-Friendly Demonstration Gardens Program

California Friendly Landscape Workshop Series

Water-Efficient Device Rebate

Provided **26,224 rebates** since 2015.



2021 Water Lab Spring Session

In addition, West Basin has implemented extensive public education and outreach. Many programs were interrupted or adapted to online or virtual formats due to COVID-19 restrictions implemented in March 2020.

West Basin's public education and outreach activities include:

Water for Tomorrow campaign

Launched in 2019; rebranding of the Water Reliability 2020 Program

District newsletter

20,000 unique views since 2015

Media relations

97 press releases since 2015

Social media and website

99,697 website users since 2018

Speakers Bureau

77 events since 2016

Imported water supply tours

Tours include State Water Project, Colorado River Aqueduct, and Diamond Valley Lake Reservoir

Water Harvest Festival

Up to 1,700 visitors each year

Community events

29 events from January to June 2019

Water recycling tours

1,267 tours since 2015

Virtual community and school education programs:

- **Know Your H2O webinar series**
- **Water use efficiency and conservation workshops and classes**
- **Fire-resistant landscape workshops**
- **Virtual field trips and online student resources**

School education programs:

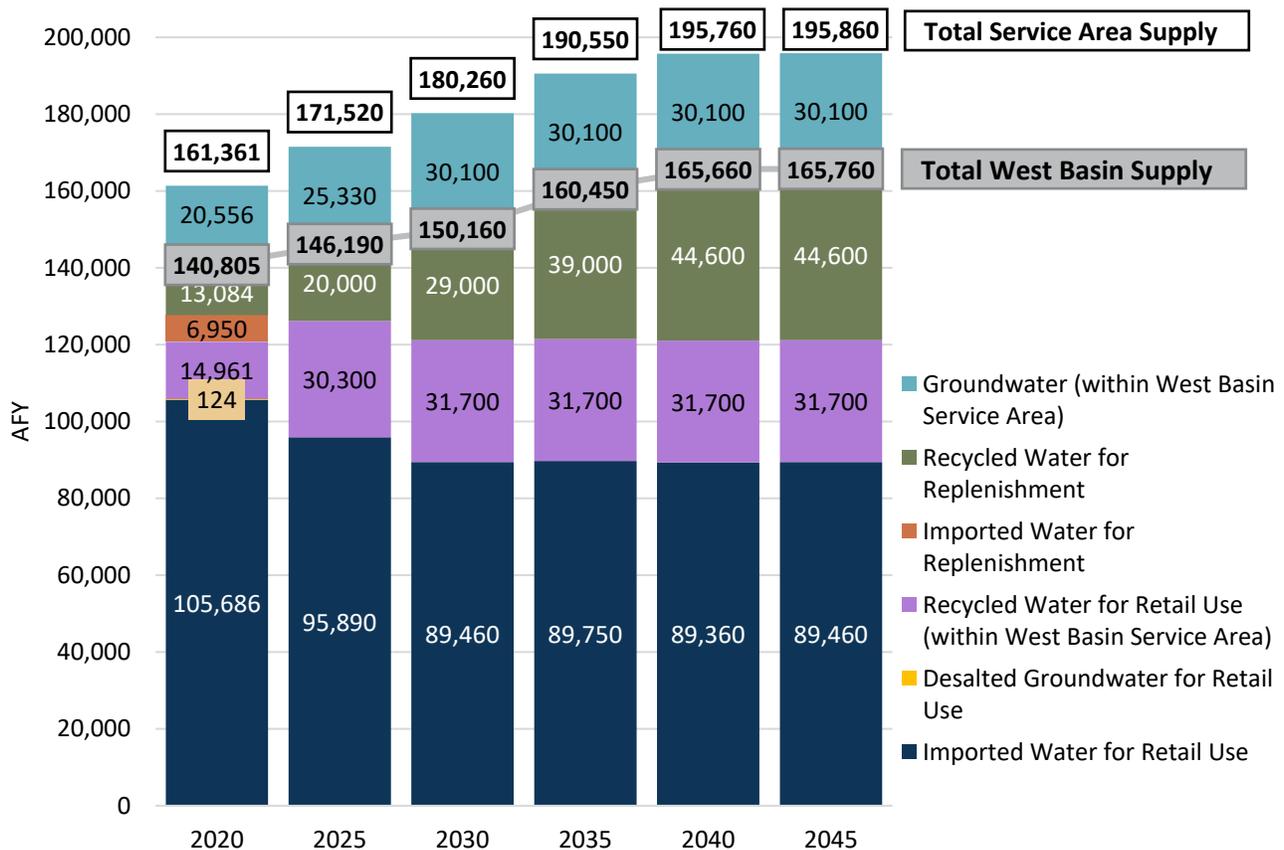
- **Solar Cup**
Recently sponsored four high schools
- **Water Is Life student art contest**
Average of 500 students participate annually
- **Water treatment facility school tours**
Average of 6,000 students tour annually
- **Water educators newsletter**
Digital quarterly newsletter to educators since 2007
- **Water Star Program**
Average of 4,000 students receive kits annually
- **Surfrider Foundation Teach and Test Program**
Average of 100 students participate annually
- **Career training programs**
Participates in the Annual Youth Business and Industry Job Shadow Day; offers high school internships
- **Water industry career presentations**
Average of 100 students participate annually

Water Supplies

West Basin has been able to diversify the water supplies it provides to its retail agencies by ensuring access to imported water supplies from Metropolitan and by developing recycled water supplies and desalinated groundwater. West Basin directly supplies water to its retail agencies for potable and recycled water use, and it indirectly serves its retail agencies via replenishment supplies necessary to maintain their groundwater production. West Basin is also actively exploring the feasibility of adding ocean water desalination to its supply portfolio.

As shown in **Figure ES-4**, West Basin capital projects have allowed for increased delivery of recycled water and groundwater supplies to meet retail demands. The growth in these supplemental supplies is projected to be greater than the projected increase in demands in future years. As such, imported water from Metropolitan is expected to decrease from about 65% of the total service area supply in 2020 to 46% by 2045.

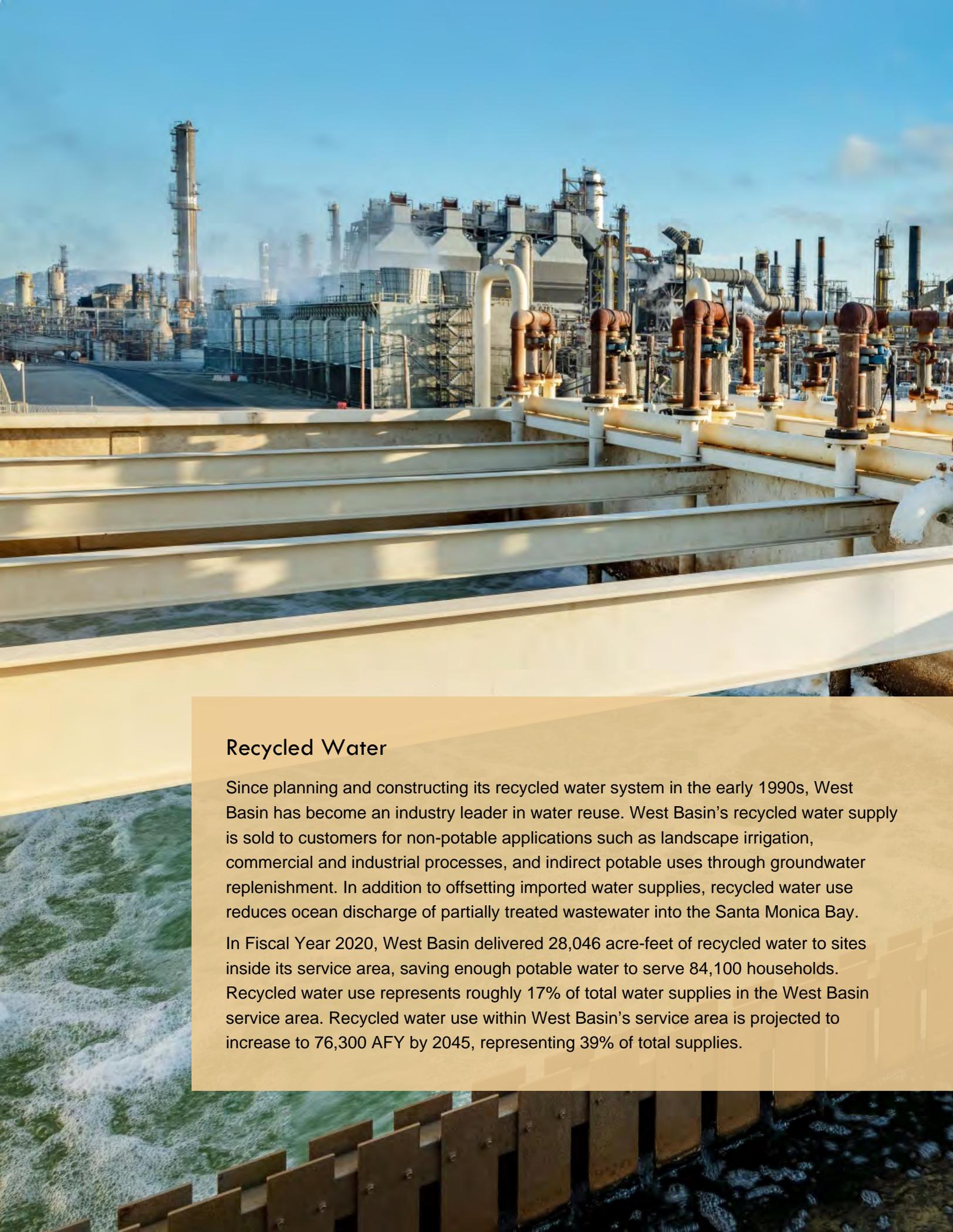
Figure ES-4: West Basin Service Area, Existing and Projected Water Supplies



Imported Water

West Basin's imported water comes from the State Water Project (SWP) and Colorado River via Metropolitan pipelines and aqueducts. Metropolitan's primary purpose is to provide a supplemental supply of water for domestic and municipal uses at wholesale rates to its member public agencies. Metropolitan's planning strategy continues to balance available local and imported water resources and member agencies' demands within Metropolitan's service area. Metropolitan is projecting high reliability of its supplies through integrated use of Colorado River supplies, SWP supplies, and storage. Over the past two decades, Metropolitan has developed a large regional storage portfolio that includes both dry year and emergency storage capacity. Storage is a key component of water management and enables the capture of surplus water in normal and wet hydrologic conditions when it is plentiful for supply and environmental uses. Stored water can then be used in dry years and in conditions where augmented water supplies are needed to meet demands.





Recycled Water

Since planning and constructing its recycled water system in the early 1990s, West Basin has become an industry leader in water reuse. West Basin's recycled water supply is sold to customers for non-potable applications such as landscape irrigation, commercial and industrial processes, and indirect potable uses through groundwater replenishment. In addition to offsetting imported water supplies, recycled water use reduces ocean discharge of partially treated wastewater into the Santa Monica Bay.

In Fiscal Year 2020, West Basin delivered 28,046 acre-feet of recycled water to sites inside its service area, saving enough potable water to serve 84,100 households. Recycled water use represents roughly 17% of total water supplies in the West Basin service area. Recycled water use within West Basin's service area is projected to increase to 76,300 AFY by 2045, representing 39% of total supplies.

Desalination

West Basin began an ocean water desalination program in 2001 to explore the development of a new, drought-proof, locally controlled supply of drinking water. The District concluded a pilot study, demonstration facility, multiple technical studies, and most recently the certification of the Final Environmental Impact Report (EIR) for the potential Ocean Water Desalination Project. This potential project would produce approximately 20 million gallons per day of drinking water.

Currently, the Ocean Water Desalination Project is in an evaluation phase. The West Basin Board certified the project EIR in November 2019 and outlined five conditions that staff must satisfy before the project may proceed to any subsequent phase. The five conditions include: developing cost estimates, developing a financial evaluation and plan, completing a cost-benefit analysis, developing design and project delivery documents, and securing permits.

The potential project supply is not included in the projected supplies in this UWMP due to the project's current status and West Basin's supply reliability analysis (presented below). However, ocean water desalination improves supply reliability and could provide a regulated, drought-proof drinking water supply to the service area and region. Projected conditions in this UWMP may change in the future, and West Basin will continue to consider the role of ocean desalination in the District's supply portfolio as new information is available.





Groundwater

West Basin does not directly supply groundwater to its retail agencies; however, groundwater is an important local supply source for the region, and West Basin does supply highly purified recycled water that meets drinking water standards for groundwater replenishment that is required to maintain two seawater intrusion barriers and recharge the West Coast Basin aquifer. Groundwater from the West Coast Groundwater Basin and Central Groundwater Basin is an important local source that has historically represented 20% to 25% of the supply used to meet overall demand within West Basin's service area. Within the last five years, groundwater production has declined to only 15% to 20% of total retail demand. Based on conversations with retail agencies, the decline in groundwater production was largely due to water quality concerns or inoperable groundwater infrastructure due to equipment failures and maintenance. Many retail agencies have ongoing or planned projects to increase their groundwater use, and the collective groundwater production in the West Basin service area is expected to return to historical



Water Supply Reliability

Every urban water supplier is required to assess the reliability of its water service to its retail agencies under normal year, single-dry year, and multiple-dry year hydrologic conditions. The assessment includes an evaluation of the drought risk over the next five years. Various factors may impact supply reliability, such as legal, environmental, water quality, and climatic factors, which are discussed below.

These factors can result in immediate (facility failures), near-term (SWP limitations), or long-term (climate change) impacts to reliability and must be considered in future planning.

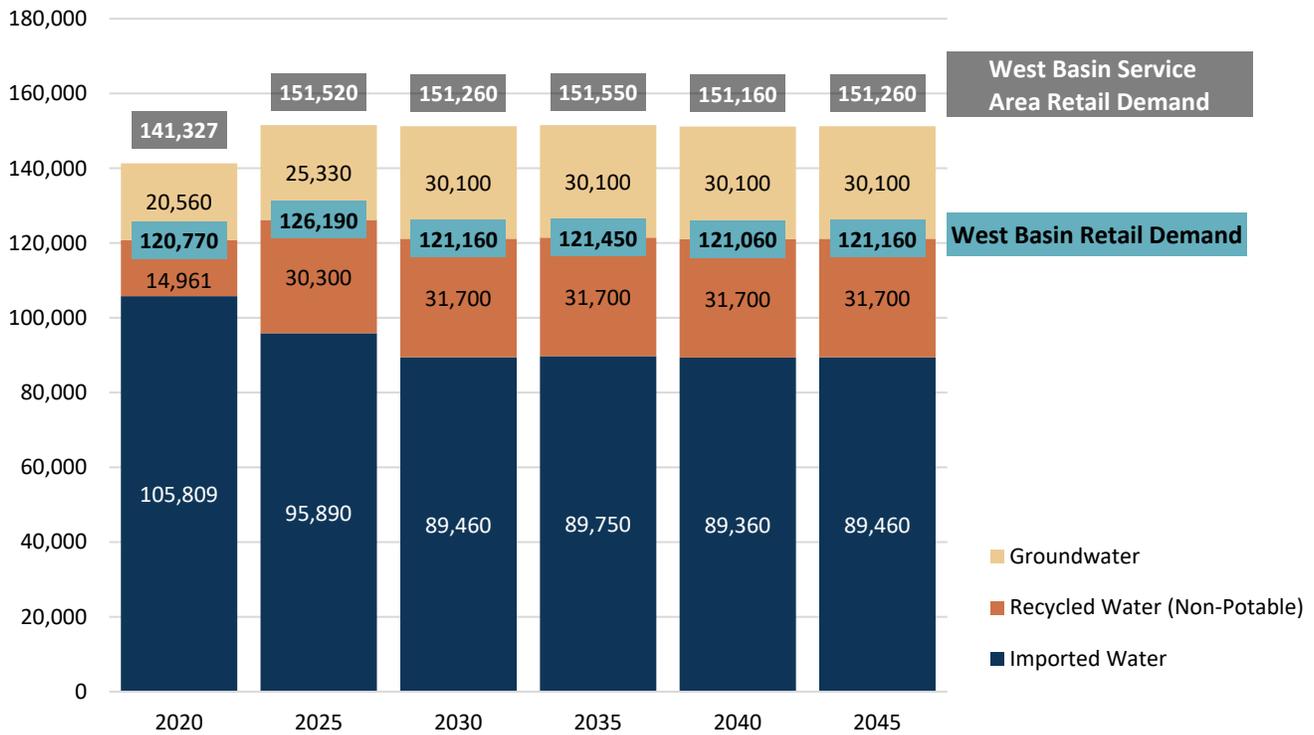
The impacts of these factors on reliability increase under single-dry and multiple-dry year hydrologic patterns. West Basin's Water for Tomorrow Program goal — to expand and further diversify its supply portfolio — is the most important step toward improving the reliability of supplies. West Basin has completed comprehensive water shortage contingency planning to provide reliability in the event of a water shortage. West Basin's 2021 Water Shortage Contingency Plan is presented in **Appendix C**. Expected water supply reliability for normal conditions, single dry-year conditions, and multiple-dry year conditions through 2045 are discussed below, followed by a Drought Risk Assessment for 2021–2025. Of the supplies in the West Basin service area, imported water from Metropolitan has the highest sensitivity to hydrologic conditions and is subject to reduced availability due to drought. Metropolitan has made substantial investments to increase imported water supply reliability during periods of extended drought.

Metropolitan projects the ability to meet projected West Basin imported water demands under normal year, single-dry year, and multiple-dry year conditions (Metropolitan Water District of Southern California, May 2021).

Groundwater in the West Coast Groundwater Basin and Central Groundwater Basin aquifers can be considered drought resistant as long as sufficient water supplies are available to maintain sustainable groundwater levels, which is WRD's mission. Recycled water is similarly drought resistant, and available recycled water supplies far exceed demands. Therefore, recycled water is assumed to have the same yield in normal year, single-dry year, and multiple-dry year drought scenarios.

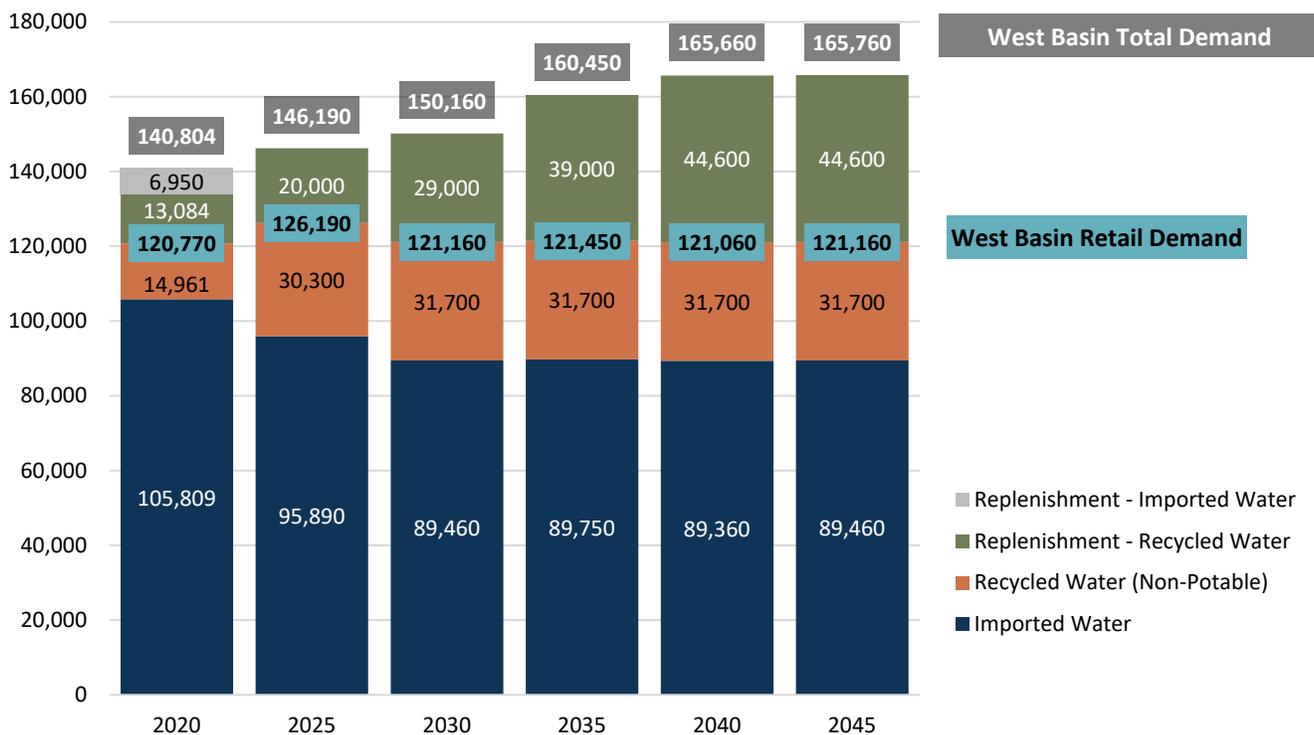
As shown in **Figure ES-5** (total West Basin service area retail demand and supplies) and **Figure ES-6** (total West Basin demand and supplies), West Basin projects to have sufficient supplies to meet demands under normal year supply and demand conditions as well as single-dry year conditions. West Basin also projects sufficient supplies to meet projected demands in multiple-dry years due to its diversified supply and conservation measures and Metropolitan's supply reliability investments. As a result, there are no anticipated shortages under the single-dry year or multiple-dry year scenarios, and West Basin service area demands are assumed to be unconstrained in each reliability scenario.

Figure ES-5: West Basin Service Area Retail Supply Projections for Normal and Single-Dry Years



Note: Includes demand met by groundwater pumped by West Basin customers

Figure ES-6: West Basin Supply Projections for Normal and Single-Dry Years



Water Shortage Contingency Plan

West Basin has completed comprehensive water shortage contingency planning to provide reliability during shortage situations. West Basin's water shortage contingency analysis includes Metropolitan's Water Surplus and Drought Management (WSDM) Plan and Water Supply Allocation Plan (WSAP). The WSDM Plan provides Metropolitan with a sequence of resource management actions to execute during surpluses and shortages to minimize the probability of severe shortages and reduce the possibility of extreme shortages and shortage allocations. The WSAP provides Metropolitan with a method for determining imported water allocations for its member agencies, including West Basin, relative to the supplies available.

Metropolitan, in conjunction with its member agencies, conducts a water resources planning process based on diversification of the region's water supply portfolio and continued efficient water use.

This integrated resource planning process has recognized that only through a mix of imported and member agency local supplies — along with aggressive implementation of water conservation — can the Metropolitan service area attain overall reliability of water supply. The need for diversification and drought-resilient local supplies has only been reinforced in recent years, as California and Metropolitan's service area have experienced two severe droughts, resulting in water shortages to Metropolitan and cutbacks in supplies to its member agencies.

During the most recent drought, SWP Table A Allocations were at record lows, with 5% of requested deliveries being met in 2014 and 20% of requested deliveries being met in 2015. Because of the challenges to imported water reliability and the likelihood of similar severe droughts and similar levels of Metropolitan cutbacks, West Basin will continue to reduce demands through conservation, public education, and the development of drought-resistant local supplies.

These new drought-resilient supplies will improve reliability for water users in West Basin's service area by reducing the need for Metropolitan supplies, which will protect important storage reserves during future droughts to the benefit of the entire Metropolitan service area.

As part of its water shortage contingency planning, West Basin is moving forward with plans to expand its water use efficiency programs, further develop recycled water infrastructure, and continue exploring ocean water desalination as a future water source to improve the immediate, near-, and long-term reliability of its supplies.



Introduction

This report presents West Basin Municipal Water District’s 2020 Urban Water Management Plan, which updates the plan from 2015 and complies with the new requirements and regulations.

West Basin Municipal Water District (West Basin) was established in 1947 to supplement groundwater supplies in the West Coast Groundwater Basin by providing imported water from the Metropolitan Water District of Southern California (Metropolitan). West Basin is a Metropolitan member agency that provides imported water supplies to meet potable water and groundwater recharge demands. It also produces five different types of recycled water for irrigation, industrial use, and groundwater barrier recharge to protect against seawater intrusion.

IN THIS SECTION

- UWMP Purpose and Overview
- UWMP Organization
- Relation to Other Efforts
- Delta Reliance

This Urban Water Management Plan (UWMP) provides the California Department of Water Resources (DWR) with a detailed summary of present and future water supplies and demands within West Basin’s service area and assesses West Basin’s water resource needs. Specifically, the UWMP provides water supply planning for a 25-year period in five-year increments and identifies water supplies needed to meet existing and future demands. West Basin’s 2020 UWMP updates the 2015 UWMP in compliance with requirements of the California Urban Water Management Planning Act (UWMP Act) and the California Water Code (CWC).

1.1 UWMP Purpose and Overview

CWC Sections 10610 through 10656 of the UWMP Act require every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet (AF) of water annually to prepare, adopt, and file a UWMP with DWR every five years in the years ending in zero and five.

The 2020 UWMP updates are due to DWR by July 1, 2021.

This UWMP includes:

- Evaluation of West Basin retail agency and groundwater replenishment demand
- Assessment of current and projected water supplies
- Evaluation of the reliability of water supplies
- Comparison of demand and supply projections
- Water Shortage Contingency Plan
- Description of water conservation and other demand management measures implemented by West Basin

Since its original passage in 1983, the UWMP Act has undergone significant expansion, and several amendments have been added.

Since 2015, the following requirements were added:

- Five-year drought risk assessment
- Layperson's description of reliability
- Long-term forecast for each water supply source, including climate change and supporting information
- Seismic Risk Assessment and Mitigation Plan
- Energy analysis
- Five years of previous system water losses
- Water Shortage Contingency Plan with prescriptive elements

Prolonged droughts, groundwater overdraft, regulatory revisions, and changing climatic conditions affect the reliability of each water supplier as well as the statewide water reliability overseen by DWR, the State Water Resources Control Board (SWRCB), and the Legislature. Accordingly, the UWMP Act has grown to address changing conditions; the current requirements are found in Sections 10610–10656 and 10608 of the CWC. The 2020 UWMP was developed to incorporate these new requirements under the guidance of DWR's *2020 UWMP Guidebook for Urban Water Suppliers*. A checklist to document compliance of the 2020 UWMP with the UWMP Act and the CWC is provided in **Appendix A**. This UWMP includes all required DWR standardized tables for Chapters 1 through 10 compiled in **Appendix B**, and a selection of these tables is also provided in the body of this Plan as necessary to present supporting data.

1.2 UWMP Organization

The 2020 UWMP is organized into the following chapters:

Chapter 1

Introduction and Overview

This chapter discusses the purpose and content of the 2020 UWMP and the extent of West Basin's water management planning efforts.

Chapter 2

Plan Preparation

This chapter provides information on West Basin's development of the 2020 UWMP, including the basis for plan preparation, planning type, data format, and coordination and outreach to nearby agencies.

Chapter 3

System Description

This chapter describes West Basin's service area, climate information, service area population and demographic information, and an overview of West Basin's organizational structure and history.

Chapter 4

Water Use

This chapter explains West Basin's historic, current, and projected water demand.

Chapter 5

Conservation Target

As a wholesale water supplier, West Basin is not required to develop a service area-wide 2020 per capita water use target. Therefore, this chapter includes a description of West Basin's retail agency customers' 2020 per capita water use targets and 2020 per capita use.

Chapter 6

System Supplies

This chapter examines West Basin's existing supplies, including imported water, recycled water, and desalinated groundwater, and West Basin's future water projects.

Chapter 7

Water Supply Reliability Assessment

This chapter describes the reliability of West Basin's water supply through a 25-year planning horizon, including a supply and demand assessment for normal conditions, single dry year, and five consecutive dry years.

Chapter 8

Water Shortage Contingency Planning

This chapter outlines West Basin's Water Shortage Contingency Plan (WSCP). The WSCP is a stand-alone document and is included as **Appendix C**.

Chapter 9

Demand Management Measures

This chapter reviews West Basin's existing and historic efforts to promote water conservation and other demand management measures.

Chapter 10

Plan Adoption, Submittal, and Implementation

This chapter details the steps taken by West Basin to adopt and implement the 2020 UWMP in accordance with the CWC and make it available to the public.

Appendices

This includes any additional information to support and clarify any information included within the 2020 UWMP content.

1.3 UWMPs in Relation to Other Efforts

West Basin previously prepared UWMPs for the 2005, 2010, and 2015 planning years. The 2020 UWMP serves as an update to the 2015 UWMP and complies with new requirements and regulations. In addition to completing the 2020 UWMP, West Basin is presently updating its Recycled Water Master Plan (RWMP) and implementing its capital improvement program, rehabilitation and replacement (R&R) plan, long-range financial plan, strategic business plan, Water for Tomorrow Program, and ocean water desalination program. **Figure 1-1** shows previous and ongoing planning efforts and their relation to the 2020 UWMP update.

West Basin hosted a stakeholder workshop on March 4, 2021, prior to the draft UWMP public review period. At the workshop, West Basin provided its retail agencies with consistent information for use in the development of their 2020 UWMPs and provided other information upon request.

West Basin is a wholesale water agency that is dependent on Metropolitan for its imported water supplies. Therefore, West Basin has closely coordinated with Metropolitan during the preparation of its UWMP and attended multiple information and collaboration meetings with Metropolitan over the course of both Metropolitan's and West Basin's UWMP preparation.

1.4 Demonstration of Consistency with the Delta Plan for Participants in Covered Actions

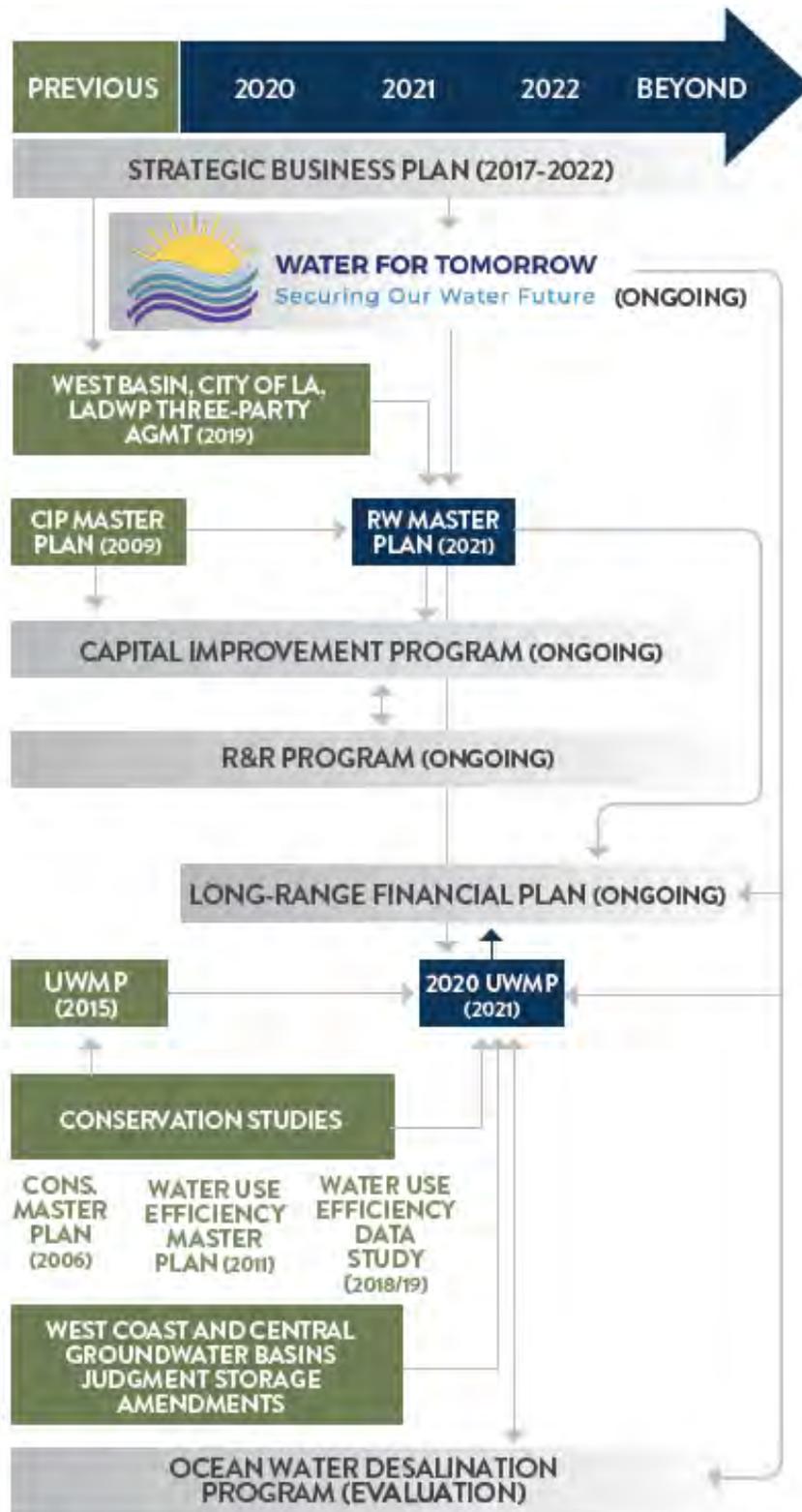
Under the Sacramento-San Joaquin Delta Reform Act of 2009, state and local public agencies proposing a covered action in the Sacramento-San Joaquin Delta (the Delta), prior to initiating the implementation of that action, must prepare a written certification of consistency. This certification, which includes detailed findings as to whether the covered action is consistent with applicable Delta Plan policies, must be submitted to the Delta Stewardship Council.

An urban water supplier that anticipates participating in or receiving water from a proposed covered action — such as a multiyear water transfer, conveyance facility, or new diversion that involves transferring water through, exporting water from, or using water in the Delta — should provide information in their 2015 and 2020 UWMPs. This information can then be used in the covered action process to demonstrate consistency with regulatory Delta Plan Policy WR P1, Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance (WR P1).

SB X7-1, which was signed in 2009, reformed Delta policy and governance. The legislation requires the development, adoption, and implementation of a "Delta Plan." It also establishes a statewide policy to reduce reliance on the Delta in meeting California's future water supply needs through a statewide strategy of investing in improved regional supplies, conservation, and water use efficiency.

DWR does not review the analysis, demonstrating consistency with WR P1 as part of the UWMP approval process; therefore, this information has been prepared as a stand-alone document and is attached as **Appendix D**. The analysis and documentation provided in the appendix include the elements described in WR P1(c)(1) that need to be included in a water supplier's UWMP to support a certification of consistency for a future covered action.

Figure 1-1. Previous and Ongoing Planning Efforts



2 URBAN WATER MANAGEMENT PLAN

Plan Preparation

West Basin Municipal Water District (West Basin) coordinated with its retail agencies and engaged with stakeholders and community members to develop this Urban Water Management Plan (UWMP). This Plan meets the requirements of the California Water Code (CWC) and plans for a resilient water future.

This Plan was prepared following guidance from the California Department of Water Resources' (DWR) 2020 UWMP Guidebook and the 2020 UWMP DWR Checklist (**Appendix A**). West Basin's Water Policy and Resources Division staff partnered with Water Systems Consulting, Inc. and Maddaus Water Management, Inc. to update the 2015 UWMP to conform to new state reporting requirements in the formation of this Plan. West Basin actively engaged with stakeholders (including cities, Los Angeles County, water agencies, and the public) to inform them of West Basin's efforts and activities, gather high-quality data to develop this UWMP, and coordinate planning activities with related regional plans and initiatives. This chapter presents details regarding West Basin's UWMP preparation, coordination, and outreach efforts.

Because West Basin is an urban water supplier indirectly serving more than 3,000 customers as a water wholesaler and more than 3,000 acre-feet for municipal purposes, it is required to prepare and submit a UWMP every five years on or before July 1 in years ending in six and one. West Basin is submitting an individual UWMP as a wholesale agency. West Basin's 2020 UWMP was submitted to DWR by July 1, 2021. West Basin tracks and reports water supply based on fiscal year, and, as such, all years referenced in this plan correspond with the fiscal year beginning July 1 and ending June 30 unless otherwise mentioned.

IN THIS SECTION

- Planning Basis
- Coordination and Outreach
- Notices

2.1 Coordination and Outreach

Recognizing that close coordination with relevant public agencies is key to the success of its UWMP, West Basin worked closely with many other entities to develop and update this planning document. West Basin also provided a public review period for the Draft UWMP and held a public hearing on June 10, 2021, to further solicit input from stakeholders.

2.1.1 Wholesale and Retail Coordination

As a wholesale water provider, West Basin has informed its retail agencies of its water supplies in accordance with CWC section 10631.

West Basin provides wholesale potable water to eight retail agencies and 12 water systems spanning multiple cities within Los Angeles County:

Cities

- City of El Segundo
- City of Inglewood
- City of Lomita
- City of Manhattan Beach

Investor-Owned Utilities

- California American Water Company
- California Water Service
 - Dominguez System
 - Hawthorne System
 - Hermosa/Redondo System
 - Palos Verdes System
- Golden State Water Company
 - Southwest System
 - Culver City System

County Water District

- Los Angeles County Waterworks District No. 29

In addition to the retail agencies listed above, West Basin provides potable water to the Water Replenishment District (WRD) for groundwater replenishment at two seawater intrusion barriers.

As a wholesale water agency, West Basin is fully dependent on the Metropolitan Water District of Southern California (Metropolitan) for its imported water supplies. Therefore, West Basin also coordinated with Metropolitan during the preparation of this UWMP by providing data, comments, and other information to Metropolitan staff as needed.

2.1.2 Coordination with Other Agencies and the Community

CWC section 10620 requires urban water suppliers to coordinate their plans with other appropriate agencies within the area. On March 4, 2021, West Basin hosted a stakeholder workshop during the development of West Basin's Draft UWMP and prior to the UWMP public review period. At the

workshop, West Basin provided its retail agencies with consistent information for use in the development of their individual 2020 UWMPs and supplied additional information upon request. Other meetings were held throughout the preparation process with individual retail agencies and Metropolitan to align each UWMP.

West Basin encouraged public interest and community involvement through its public hearing and inspection of the draft document, pursuant to CWC section 10642. The draft was submitted for public review on May 25, 2021, and copies of the Draft Plan were made available for public inspection on West Basin's website at www.westbasin.org. Notices were published in local newspapers informing the community of the upcoming public hearing on June 10, 2021. The hearing provided an opportunity for all constituents in the service area to learn and ask questions about the 2020 UWMP, in addition to West Basin's plans for providing a reliable, safe, high-quality water supply. A copy of the published Notice of Public Hearing is included in **Appendix E**.

Key planning documents that aided in the preparation of this UWMP include:

- Metropolitan's 2020 WSCP
- Metropolitan's 2020 UWMP
- Metropolitan's 2020 Integrated Resources Plan (under development)
- West Basin's Water Use Efficiency Study
- Central Basin Watermaster Report 2019
- West Basin Watermaster Report 2019
- WRD's Engineering and Survey Report 2020
- West Basin's 2015 Drought Rationing Plan
- West Basin's Recycled Water Master Plan (2021 Draft)
- DWR's 2019 State Water Project Delivery Capability Report
- WRD's Regional Groundwater Monitoring Report Water Year 2019–2020

2.1.3 Notice to Cities and Counties

CWC section 10621(b) requires every urban water supplier — at least 60 days before the UWMP public hearing — to notify the cities and counties within its service area that the UWMP is being reviewed and updated. To comply with this requirement, West Basin sent Notice of Preparation letters for the 2020 UWMP to the relevant agencies on April 8, 2021. Copies of the 60-day notice letters are attached as **Appendix E. Table 2-1** summarizes the coordination among West Basin, its retail agencies, Los Angeles County, cities within West Basin's service area, and Metropolitan during the review of the Draft UWMP.

Table 2-1: Coordination with Appropriate Agencies

AGENCY	ATTENDED CUSTOMER WORKSHOP	RECEIVED 60-DAY NOTIFICATION	RECEIVED A COPY OF DRAFT	COMMENTED ON DRAFT
Los Angeles County Water Resources Division		✓	✓	
Metropolitan Water District of Southern California	✓	✓	✓	
California American Water Company*	✓	✓	✓	
California Water Service*	✓	✓	✓	
City of El Segundo*	✓	✓	✓	
City of Inglewood*	✓	✓	✓	
City of Lomita*	✓	✓	✓	
City of Manhattan Beach*	✓	✓	✓	
Golden State Water Company*	✓	✓	✓	
Los Angeles County Waterworks District No. 29*	✓	✓	✓	
Water Replenishment District*		✓	✓	
Los Angeles Department of Water and Power		✓	✓	
City of Torrance	✓	✓	✓	
City of Rolling Hills Estates		✓	✓	
City of Rolling Hills		✓	✓	
City of Rancho Palos Verdes		✓	✓	
City of Palos Verdes Estates		✓	✓	
City of Carson		✓	✓	
City of Redondo Beach		✓	✓	
City of Gardena		✓	✓	
City of Lawndale		✓	✓	
City of Hawthorne		✓	✓	
City of Culver City		✓	✓	
City of West Hollywood		✓	✓	
City of Hermosa Beach		✓	✓	
City of Malibu		✓	✓	
Surfrider — South Bay		✓	✓	
LA Water Keeper		✓	✓	

*West Basin retail agency or customer

Highlighted column will be updated for Final UWMP

3 URBAN WATER MANAGEMENT PLAN

System Description

This chapter describes West Basin’s service area, climate, and customers, including area population and demographics.

West Basin Municipal Water District (West Basin) is a wholesale water agency in southwestern Los Angeles County that provides imported drinking water to 17 cities and unincorporated areas of Los Angeles County throughout its 185-square-mile service area.

In addition, West Basin supplies recycled water to more than 450 customer sites for municipal, commercial, and industrial use, as well as for injection into the West Coast Basin Seawater Barrier to protect against seawater intrusion and replenish the West Coast Groundwater Basin (West Coast Basin) aquifer.

IN THIS SECTION

- Service Area Description
- Climate
- Population and Demographics

3.1 General Description

An innovative public agency, West Basin is a recognized leader in the production of recycled water, conservation, and educational programs. West Basin was established by a vote of the people in 1947 to help mitigate over pumping in the West Coast Basin by providing the growing region with imported water. West Basin became a member agency of the Metropolitan Water District of Southern California (Metropolitan) in 1948 to purchase, on a wholesale level, potable water imported from the Colorado River. Today, West Basin supplies wholesale potable water to three investor-owned utilities, four municipalities, one county waterworks district, and one groundwater agency as a means of supplementing local water resources. The relationship between West Basin and its retail agencies is illustrated in **Figure 3-2**.

West Basin and its retail agencies operating within West Basin’s service area develop local supplies, including groundwater, brackish desalination, and recycled water. In addition, a blend of recycled and imported water is injected into the West Coast Basin Barrier and the Dominguez Gap Barrier to protect local groundwater supplies from seawater contamination and replenish the aquifer.

West Basin is the fourth-largest member agency of Metropolitan, which makes its participation on the Metropolitan Board of Directors critical to representing the interests of West Basin’s retail agencies on regional water issues. West Basin’s Board of Directors appoints two representatives to serve on the 38-member Metropolitan Board of Directors.

West Basin is governed by an elected, five-member Board of Directors, which guides the mission and policy of West Basin. Each director is elected to serve four-year terms and represent one of five divisions, totaling over 800,000 residents living in the West Basin service area. Current West Basin directors are shown in **Figure 3-1**, and the cities and communities within their associated divisions are described below. A map of West Basin’s service area as delineated by Director divisions is shown in **Figure 3-3**.

Figure 3-1. West Basin Board of Directors



Harold C. Williams
Division I



Gloria D. Gray
Division II



Desi Alvarez
Division III



Scott Houston
Division IV



Donald L. Dear
Division V

Division I: Cities of Carson, Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills Estates, Rolling Hills, and unincorporated Los Angeles County areas of Rancho Dominguez.

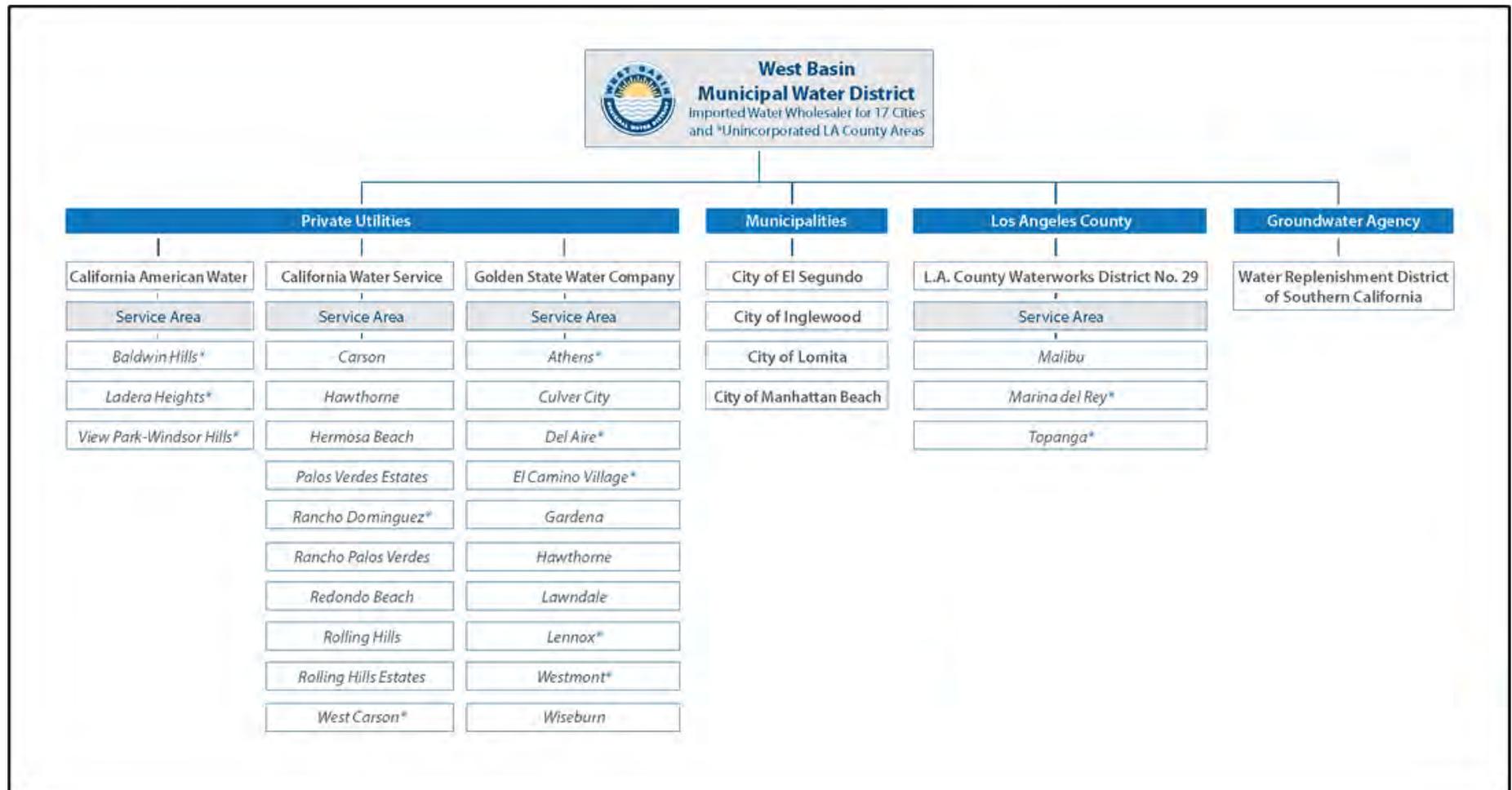
Division II: City of Inglewood and unincorporated Los Angeles County areas of Lennox, South Ladera Heights, West Athens, and Westmont.

Division III: Cities of Hermosa Beach, Lomita, Manhattan Beach, Redondo Beach, and a portion of Torrance.

Division IV: Cities of Culver City, El Segundo, Malibu, and West Hollywood, and unincorporated Los Angeles County areas of Del Aire, Lennox, Marina del Rey, North Ladera Heights, Topanga, View Park, Windsor Hills, and Wiseburn.

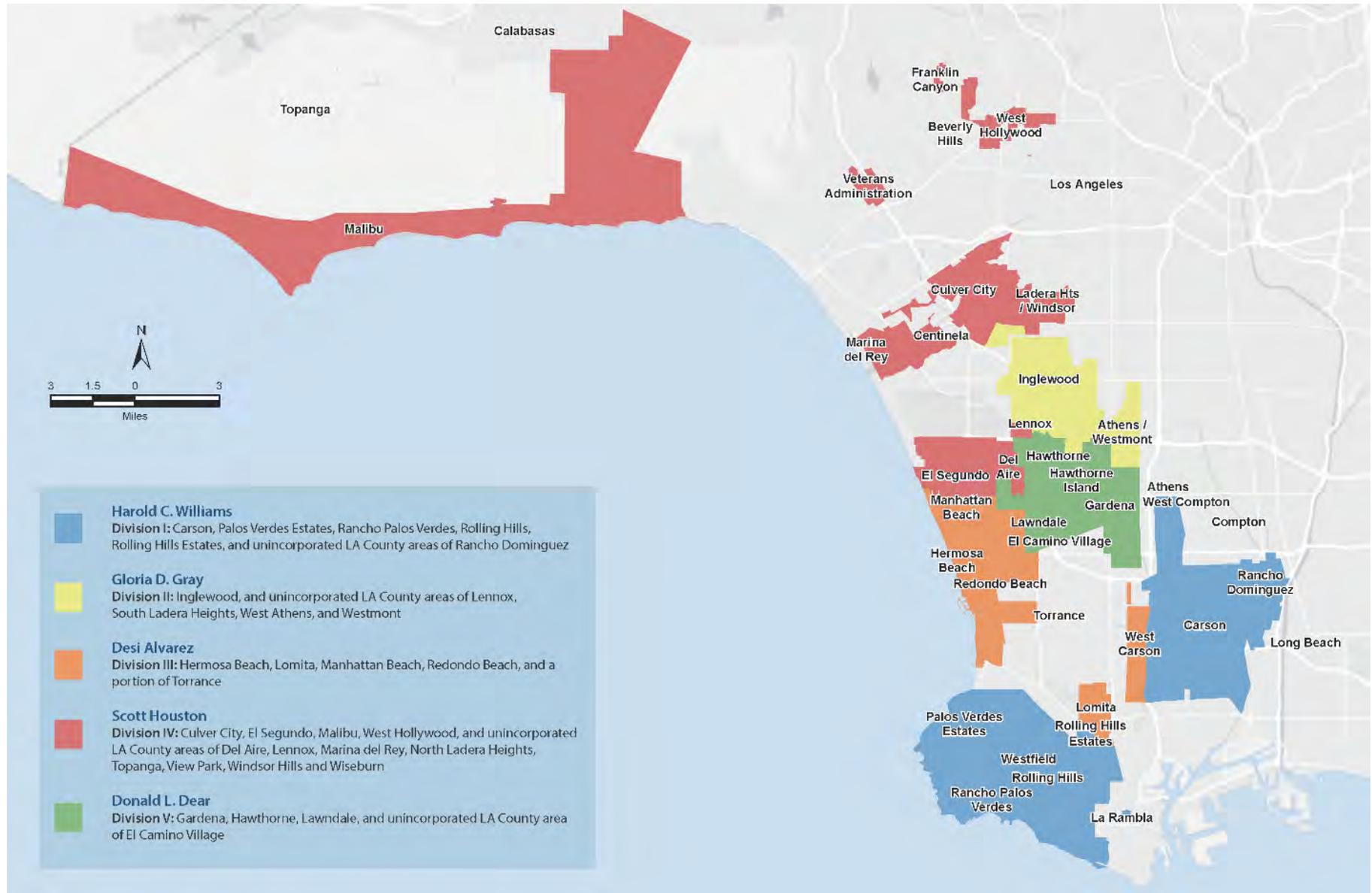
Division V: Cities of Gardena, Hawthorne, Lawndale, and unincorporated Los Angeles County area of El Camino Village.

Figure 3-2. West Basin Retail Agencies



Source: West Basin.

Figure 3-3. West Basin Service Area



Source: West Basin.

In the major drought of the late 1980s and early 1990s, West Basin’s visionary Board of Directors led the agency in developing new local water supplies, including wastewater recycling for irrigation and industrial use, and implementing effective conservation and water efficiency programs.

Today, West Basin’s Water for Tomorrow Program helps guide West Basin’s approach to ensuring the reliability of the region’s water future by focusing on the following principles:

- Protect West Basin’s existing water supply
- Diversify and augment the water supply portfolio
- Innovate to prepare for the future

West Basin continuously demonstrates its commitment to being an industry leader by exploring new methods and innovative technologies to enhance the region’s water supply, with the mission to “provide a safe and reliable supply of high-quality water to the communities we serve.” West Basin ensures water reliability for service area residents and businesses through balanced and affordable supply diversification: maximizing water recycling, expanding water efficiency and conservation efforts, desalting brackish groundwater, and evaluating desalinated ocean water.

West Basin is dedicated to serving all its communities by seeking increased reliability of imported water, more opportunities for groundwater projects, and additional exploration of alternative local water supplies such as both potable and non-potable water reuse and desalination.

West Basin currently manages a diverse water supply portfolio that includes imported water from Northern California and the Colorado River, locally produced recycled water, desalted groundwater, and conserved water. Additionally, West Basin is researching ocean water desalination as a potential future drought-proof supply of drinking water. The water supply types that West Basin provides to its retail agencies are detailed in **Table 3-1** and discussed in greater detail in **Chapter 6**.

Table 3-1. Types of Water Supplied to West Basin Retail Agencies

RETAIL AGENCY	POTABLE WATER	RECYCLED WATER	DESALTED GROUNDWATER
City of El Segundo	✓	✓	
City of Inglewood	✓	✓	
City of Lomita	✓		
City of Manhattan Beach	✓	✓	
LA County Waterworks District 29	✓		
Cal American Water	✓		
California Water Service	✓	✓	✓
Golden State Water Company	✓	✓	
Water Replenishment District	✓	✓	

Many of West Basin’s retail agencies also pump groundwater supplies from the West Coast Basin to help meet their demands. In addition, California Water Service delivers a small amount of water from West Basin’s C. Marvin Brewer Desalter, which treats brackish groundwater from the West Coast Basin for drinking water use.

3.2 Service Area Climate

West Basin’s service area lies in the heart of southern California’s coastal plain. It has a Mediterranean climate characterized by warm, dry summers and wet, cool winters with moderate precipitation.

Southern California is vulnerable to droughts. Historically, West Basin has experienced patterns of multiple dry years that have resulted in severe drought periods in 1977–78, 1989–92, 1999–2004, 2007–09, and most recently 2012–16. Excessively dry conditions increase the local water demand because less precipitation is available to meet landscaping irrigation needs and water shortages often result.

West Basin’s service area spans a large portion of Los Angeles County, and the average temperature, precipitation, and evapotranspiration rates can vary significantly between and within the coastal and inland areas. **Table 3-2** shows the average climate data representative of southwestern Los Angeles County. As shown, the average daily temperatures in West Basin’s service area in Los Angeles County range from an average low of close to 47.5 degrees Fahrenheit (°F) in December and January to an average high of about 76°F in August and September. The average annual precipitation is approximately 12 to 14 inches, although the region is subject to significant variations in monthly precipitation. The average evapotranspiration is 44 to 48 inches per year, which is three and a half times the annual average rainfall. This generates a high water demand for landscape irrigation for homes, commercial properties, parks, and golf courses.

Table 3-2. Monthly Average Climate Data in Los Angeles County

PARAMETER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
Average Max. Temperature (°F)	65.2	65.3	65.3	67.4	69.1	71.9	75.1	76.3	76.0	73.6	70.2	65.9	70.1
Average Minimum Temperature (°F)	47.5	48.9	50.5	53.0	56.4	59.7	62.9	63.8	62.6	58.5	52.3	47.9	55.3
Average Total Precipitation (in)	2.65	2.67	1.85	0.77	0.17	0.05	0.02	0.07	0.16	0.39	1.40	1.82	12.02
Evapotranspiration (in)	2.34	2.91	3.34	4.06	5.96	5.26	6.62	6.31	4.66	3.51	2.44	2.22	44.38

Notes: Temperature and precipitation data from Monthly Climate Summary for Los Angeles International Airport (LAX), January 1936 to June 2016. Western Regional Climate Center. <http://www.wrcc.dri.edu/>. Evapotranspiration data from CIMIS Daily Average Evapotranspiration Report for Long Beach – Station 174. (California Department of Water Resources, 2020)

3.2.1 Climate Change

As described in Metropolitan’s 2020 Urban Water Management Plan (UWMP) (Metropolitan Water District of Southern California, May 2021), climate change is having a profound impact on California’s water resources, as evidenced by changes in snowpack, sea level, and river flows. These changes are expected to continue in the future, as more of our precipitation will likely fall as rain instead of snow. This potential change in weather patterns will impact water storage, exacerbate flood risks, and add challenges to water supply reliability.

Mountain snowpack provides as much as one-third of California’s water supply, accumulating snow during the wet winters and releasing it slowly when it is needed during the state’s dry springs and summers. Warmer temperatures will cause snowpack to melt faster and earlier, making it more difficult to store and use. By the end of this century, the Sierra snowpack is projected to experience a 48% to 65% loss from the historical April 1 average (Climate Change and Water, 2021). This loss of snowpack means less water will be available for Californians to use.

Climate change is also expected to result in more variable weather patterns throughout California. More variability can lead to longer and more severe droughts. In addition, the sea level will continue to rise, threatening the sustainability of the Sacramento-San Joaquin Delta, the heart of the California water supply system and the source of water for 25 million Californians and millions of acres of prime farmland.

Within the past five years, drastic swings in hydrologic conditions proved challenging to urban water suppliers throughout California. In 2015, the dry conditions resulted in the lowest ever snowpack in the Northern Sierras. In 2017, the State Water Project (SWP) watershed saw the highest ever Sacramento River runoff, resulting in the highest SWP allocation since 2006. However, by 2020 dry conditions returned to most of the state, distinguished by the driest February in history, peak snowpack in April at 66% of the average April 1 measurement, and average runoff for the year at 52% of the average. Subsequently, Metropolitan only received 20% of contract SWP water supplies in 2020 and is expected to receive only 5% of contract SWP water supplies in 2021 (as of May 2021).

The uncertainty of continued climate impacts on the region stresses the need for flexibility and adaptability in planning for future water supplies. West Basin previously enacted its Drought Rationing Plan from 2009–2011 and 2014–2015 in response to Metropolitan’s implementation of its Water Supply Allocation Plan (West Basin Municipal Water District, 2021). With ongoing climate change expected to cause more frequent water rationing situations in future years, West Basin will continue to incorporate climate-based planning scenarios as part of its long-term water supply reliability strategic planning process. The potential for ongoing changes to the local climate and the resulting impacts on supplies are further discussed in **Chapter 7**. Planning for potential water shortages is discussed in the 2021 Water Shortage Contingency Plan in **Appendix C**.



3.3 Service Area Population and Demographics

West Basin provides water to incorporated and unincorporated areas in southwest Los Angeles County. The land uses within West Basin's service area include single-family and multifamily residential, and commercial, industrial, and institutional (CII) land use types. **Table 3-3** includes West Basin's current and projected population, housing units, and employment projections. The demographic data is provided by Metropolitan in its 2020 UWMP and is based on best available data from the California Department of Finance, California Employment Development Department, and the Southern California Association of Governments (SCAG) 2020 Regional Transportation Plan/Sustainable Communities Strategy growth forecast (Metropolitan Water District of Southern California, May 2021).

Table 3-3. Current and Projected Demographics

DEMOGRAPHICS	2020	2025	2030	2035	2040	2045
Population	841,550	869,252	880,718	893,089	902,163	913,615
Occupied Housing Units	293,945	310,141	315,746	321,467	325,386	330,280
Single-Family		175,977	177,601	179,092	180,248	181,479
Multi-Family		134,165	138,145	142,375	145,138	148,801
Persons per Household		2.77	2.76	2.75	2.74	2.74
Urban Employment	402,534	435,002	441,195	447,647	457,457	465,331

Source: Metropolitan Water District of Southern California 2020 UWMP

Current projections show that population is expected to increase at a moderate growth rate between 2020 and 2025 (approximately 0.65% annual growth), and then continue at a 0.3% annual growth rate from 2025 through 2045. This projection results in nearly 914,000 people living in West Basin's service area by 2045.

The number of households in West Basin's service area is expected to increase by 12.4% in the next 25 years and urban employment in West Basin's service area is expected to rise by 15.6% in the next 25 years. The projections assume a relatively high growth rate from 2020 to 2025 based on updated SCAG projections from March 2020 that incorporate the Regional Housing Needs Assessment (RHNA), which is mandated by State Housing Law as part of the periodic process of updating local housing elements of the General Plan.¹ RHNA quantifies the need for housing within each jurisdiction during specified planning periods. The RHNA requirements cause the relatively high population and occupied housing unit increases shown in **Table 3-3**.

¹<https://scag.ca.gov/rhna>

3.3.1 Other Social, Economic, and Demographic Factors

The West Basin service area has experienced significant impacts due to the global pandemic caused by the COVID-19 virus. In March 2020, the State of California issued a stay-at-home order that forced many businesses to close and other businesses to require employees to continue working only from home to slow the spread of the virus. Additionally, the forced closure of many businesses caused a historic increase in unemployment across the country and a resulting economic recession. While all the impacts of COVID-19 are not entirely known at this time, it has likely caused an increase in residential water use and a decrease in commercial water use.

As a wholesaler, West Basin does not track water use by customer class. This shift in water use by customer class is expected to be temporary and return to previous levels once all stay-at-home orders are lifted and businesses can reopen. However, the economic recession could have longer-term impacts on the region.



SoFi Stadium uses West Basin Recycled Water

4

URBAN WATER MANAGEMENT PLAN

Water Use Characterization

This chapter summarizes West Basin Municipal Water District’s (West Basin) historical, current, and projected water demands in its service area and demands for West Basin supplies through 2045.

Total water use within West Basin’s service area consists of the following demands:

- **Retail demand**
 - Potable (drinking) water
 - Imported water
 - Groundwater production
 - Recycled water
- **Groundwater replenishment demand**
 - Imported water
 - Recycled water

IN THIS SECTION

- Past and Current Water Use
- Projected Water Use

Retail demand is defined as a population’s direct consumption, or all municipal (residential, firefighting, parks, etc.) and industrial uses. Replenishment demand is the supply needed to maintain local groundwater operations, including seawater intrusion barrier activities in the West Coast Groundwater Basin, and is not used directly by residents, municipalities, or industries.

West Basin is responsible for meeting the direct retail demand from its customer retail agencies through potable and recycled water supplies. Likewise, it currently meets groundwater replenishment demand from the Water Replenishment District (WRD) using a mix of imported and recycled water supplies.

4.1 Retail Demands

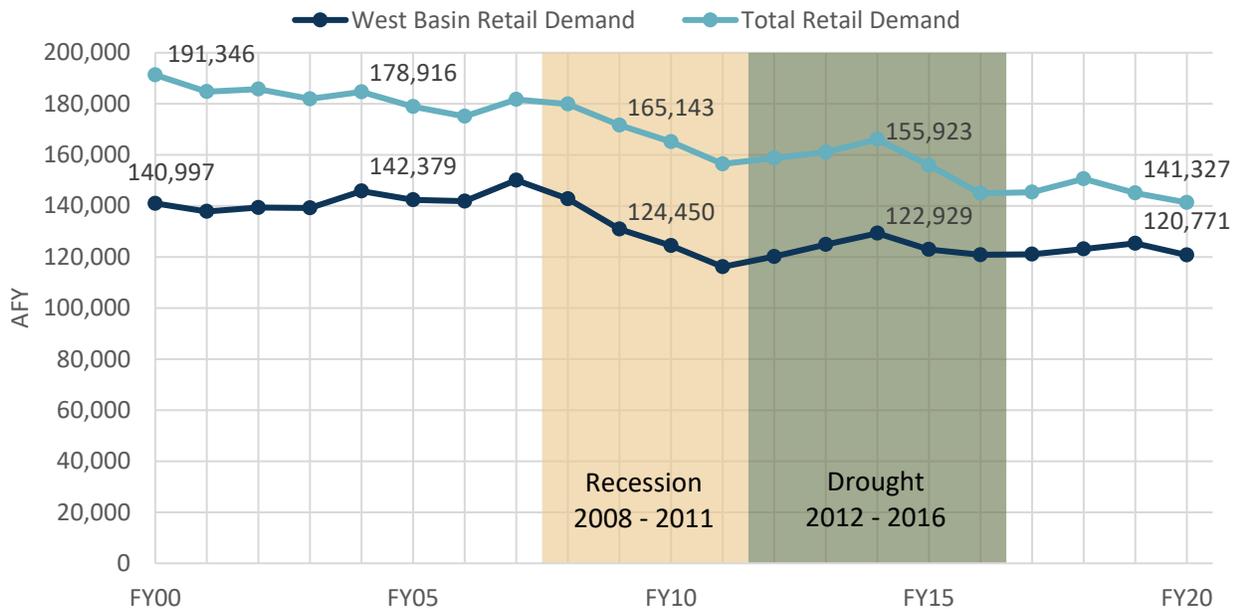
West Basin total retail demand is the service area retail demand minus the local groundwater supply. It includes recycled water and imported water demand. For West Basin to estimate retail demands on its supplies, it must first project total demand within its service area and then subtract retail agency projected local groundwater supplies. This section presents total service area demand projections, local supply projections, and net West Basin demands through 2045.

4.1.1 Past and Current Water Use

As shown in **Figure 4-1**, retail demand has declined by more than 25% over the last 20 years due to West Basin’s significant water conservation efforts and efforts by local, regional, and State agencies. Residents in West Basin’s service area display an ongoing commitment to reducing water use through water-efficient practices, which has helped maintain lower overall water demand in the years following the 2012-2016 drought (California Natural Resources Agency, March 2021).

On an annual basis, demand can fluctuate due to factors such as climate, economic development, longer drought cycles, and water use efficiency programs during a severe and prolonged drought. West Basin, along with much of California, has experienced the effects of two major droughts (2007–2009 and 2012–2016) within the last 15 years, both resulting in the water supply allocation of imported water supplies by the Metropolitan Water District of Southern California (Metropolitan). In years when supplies are constrained or when cutbacks from Metropolitan are triggered, demand reduction actions become more critical as a means of further reducing regional water demand. Drought-related water reductions coincided with changes in economic activity, such as the economic rebound following the end of the 2008-2011 recession, leading to more severe drought years in 2014 and 2015, and more recent economic impacts due to the COVID-19 pandemic beginning in 2020.

Figure 4-1: Historic West Basin Service Area Retail Demand



Note: West Basin retail demands are only the demands met by West Basin’s supplies, including imported and recycled water. Total retail demand includes all retail demands in West Basin’s service area, including West Basin supplies and local groundwater supplies from each retail agency.

4.1.2 Projected Service Area Demands

This Urban Water Management Plan (UWMP) provides insight into West Basin's expected retail water demands for the next 25 years. Predicting water usage is an important element in planning future water supplies. In 2015, West Basin relied solely on Metropolitan's projections for retail demand and water use efficiency. For this 2020 UWMP, West Basin developed a model to compare supply and demand under multiple scenarios. Scenario analysis allows West Basin to compare the benefits (and costs) of long-term water resources conditions and strategies. West Basin's demand projections referenced three primary sources: Metropolitan's Draft 2020 UWMP, demand projections provided by each West Basin retail agency, and recycled water projections developed in West Basin's 2021 Recycled Water Master Plan (RWMP).

As noted by Metropolitan (Metropolitan Water District of Southern California, May 2021), **demand projections face many uncertainties:**

- Fluctuations in population and economic growth
- Uncertain location of growth
- Uncertain housing stock and density
- Potential COVID-19 impacts
- Changes in outdoor water use patterns
- Climate change impacts

While it is difficult to quantify and incorporate all uncertainties, West Basin has selected the higher demand scenario in its demand projections to be conservative for long-term planning purposes. A more conservative approach is prudent to help ensure adequate supply in the face of growing uncertainty in the future reliability of available water supplies. Of the numerous supply and demand scenarios that West Basin evaluated, only one was selected to present in this UWMP. The UWMP demand projection includes conservative assumptions for outdoor water use and near-term growth as required by the Regional Housing Needs Assessment (RHNA) based new housing projections described in **Chapter 3**.

The three biggest factors in Metropolitan's demand projections are population and economic growth, "normal" demand, and conservation.

4.1.2.1 Growth

As described in Metropolitan’s 2020 UWMP (Metropolitan Water District of Southern California, May 2021), demographic and economic factors are the major drivers behind retail water demands. Demographic and economic data used in developing the West Basin projections for this UWMP were taken from the Southern California Association of Governments’ (SCAG) 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy from the Connect SoCal report (as adopted on May 7, 2020). SCAG regional growth forecasts¹ are the core assumptions that drive the estimating equations in Metropolitan’s Econometric Demand Model. West Basin’s demographic forecasts provided by Metropolitan are described in **Chapter 3** and presented in **Table 3-2**. Of note is that the Metropolitan demand projections assume a relatively high growth rate from 2020 to 2025 based on updated SCAG projections from March 2020. These SCAG projections incorporate the RHNA that is mandated by State Housing Law as part of the periodic process of updating local housing elements of the General Plan.² RHNA quantifies the need for housing within each jurisdiction during specified planning periods. The current SCAG planning period covers 2021 to 2029. Growth projections are associated with an estimated 4,550 acre-feet per year (AFY) of demand increase from 2020 to 2025.

4.1.2.2 “Normal” Demand

Metropolitan projects an estimated new “normal” demand, which is demand outside of drought restrictions and with average weather, based on average water use for 2014, 2016, 2017, and 2018. Average retail water use from these years was 151,800 AFY, which is an increase of approximately 10,500 AFY from 2020. Following the projected demand increase through 2025, Metropolitan projects that West Basin’s retail demands will remain flat through 2045.

4.1.2.3 Conservation

After the total retail demands are projected, Metropolitan projects future water savings from conservation based on water use factors and projected demographic and economic factors. These savings estimates are applied to reduce the total retail demand in the projections.

¹Per the Metropolitan 2020 UWMP (March 2021): “SCAG’s projections undergo extensive local review, incorporate zoning information from city and county general plans, and are backed by Environmental Impact Reports. SCAG prepares demographic forecasts based on land use data for their respective regions through extensive processes that emphasize input from local planners and are done in coordination with local or regional land use authorities, incorporating essential information to reflect anticipated future populations and land uses. These growth forecasts are used to guide development of regional plans and strategies mandated by federal and state governments. Met’s use of SCAG and SANDAG projections is consistent with CWC Section 10631’s requirement for suppliers to include current and projected land uses within the existing or anticipated service area affecting the supplier’s water management planning. Impacts of potential annexation are not included in the demand projections for the 2020 UWMP. However, Met’s Review of Annexation Procedures concluded that the impacts of annexation within the service area beyond 2020 would not exceed two percent of overall demands.”

²<https://scag.ca.gov/rhna>

Conservation savings in the Metropolitan demand projections (Metropolitan Water District of Southern California, March 2021) include:

Code-based conservation

Water savings resulting from plumbing and building codes and other institutionalized water efficiency measures. Sometimes referred to as “passive conservation,” this form of conservation would occur without any additional financial incentives from water agencies. In addition, a conservative assumption for water savings from the Model Water Efficiency Landscape Ordinance (MWELO) is assumed for 50% of new home construction, on the basis that the ordinance does not have a uniform effective enforcement mechanism for compliance for new homes and businesses and long-term maintenance at higher efficiency irrigation application rates or conversion to higher water use landscape (i.e., post construction conversion to a turf centric landscape). MWELO is also conservatively assumed not to affect water use projections for existing homes and businesses, given the tendency to have unpermitted landscape upgrades.

Active conservation

Water saved as a direct result of programs and practices directly funded by a water utility. Active conservation is unlikely to occur without agency action. Refer to **Chapter 9** for more detail on the robust level of implementation of both Metropolitan’s and the West Basin Water Use Efficiency Program. In addition, local privately owned retail water suppliers (e.g., California American Water, California Water Service, and Golden State Water) are regulated by the California Public Utilities Commission to have robust active water use efficiency programs.

Price effect conservation

Reductions in customer use attributable to changes in the real (inflation-adjusted) cost of water. Because water has a positive price elasticity of demand, increases in water price will decrease the quantity of water demanded by the end use consumer.

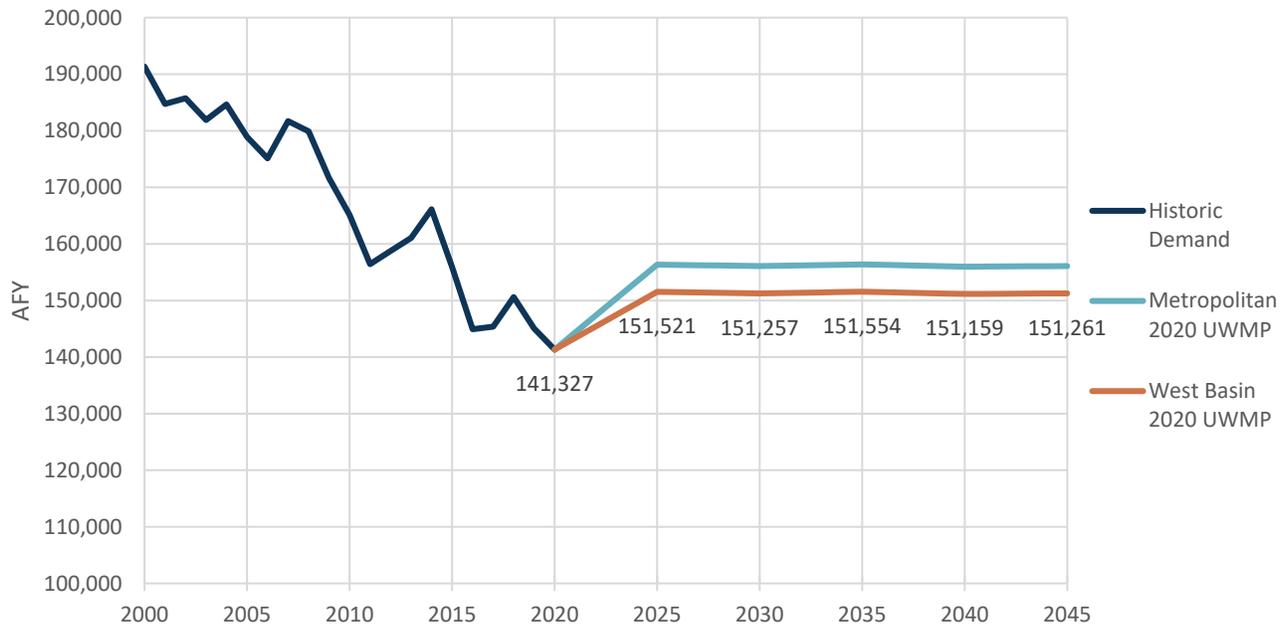
Pre-1990 savings

Conservation savings are commonly estimated from a base-year water use profile. Beginning with the 1996 Integrated Resources Plan, Metropolitan identified 1980 as the base year for estimating conservation because it marked the effective date of a new plumbing code in California requiring toilets in new construction to be rated at 3.5 gallons per flush or less. Between 1980 and 1990, Metropolitan’s service area saved an estimated 250,000 AFY as the result of this 1980 plumbing code and unrelated water rate increases. Within Metropolitan’s planning framework, these savings are referred to as “pre-1990 savings.”

4.1.2.4 West Basin Retail Demand Projections

For the West Basin 2020 UWMP demand projection, West Basin applied the growth and conservation assumptions used by Metropolitan, but it selected a lower baseline of “normal” demand based on demand in the three years following the most recent statewide drought restrictions. West Basin’s demand projections are therefore based on average demand from 2016 to 2018 (146,970 AFY). Demand in 2014 was excluded due to relatively low precipitation; 2015 demand was excluded due to severe drought restrictions; and 2019 demand was excluded due to relatively high precipitation. West Basin’s 2020 UWMP retail demand projection, shown in **Figure 4-2**, is about 4,800 AFY lower than Metropolitan’s projection. Since Metropolitan used its own projections for its water reliability assessment and found its supplies to be highly reliable (as discussed in **Chapter 7**), West Basin projecting lower demands in its service area than Metropolitan provides a supply planning safety factor for West Basin.

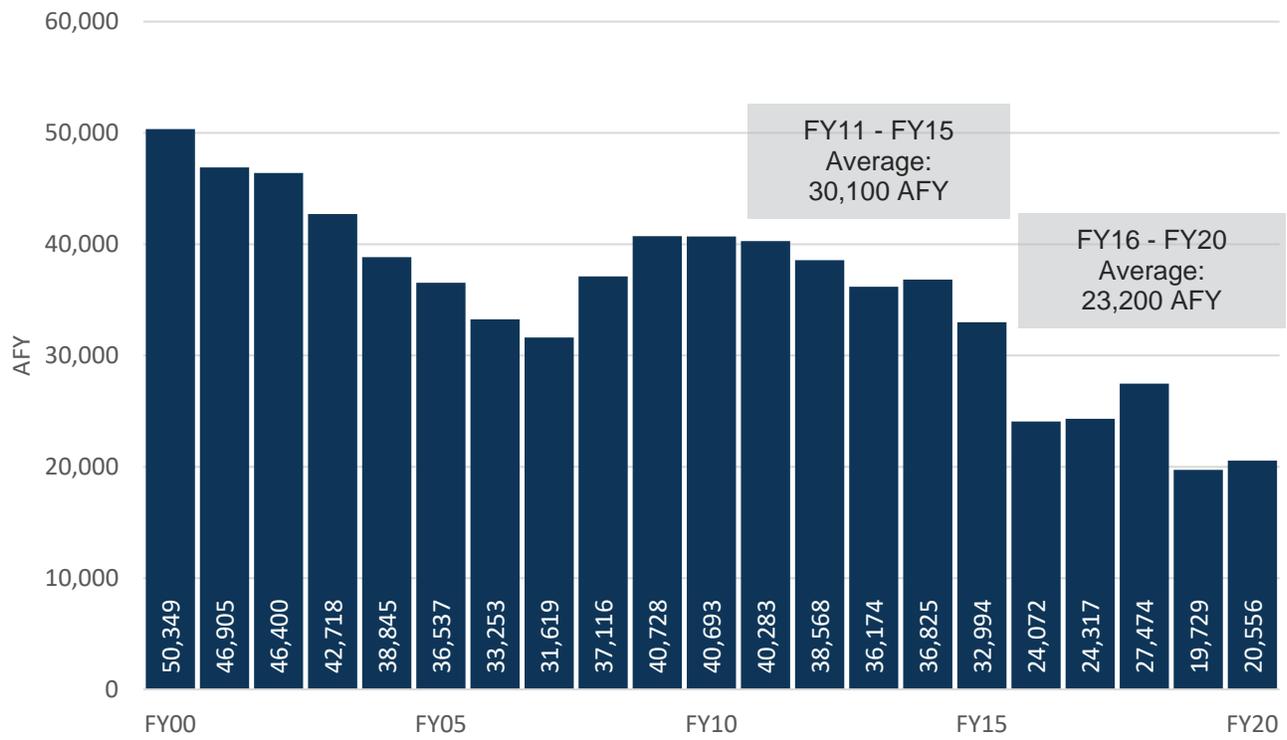
Figure 4-2: West Basin Service Area Retail Demand Projections



4.1.2.5 Local Supply Projections

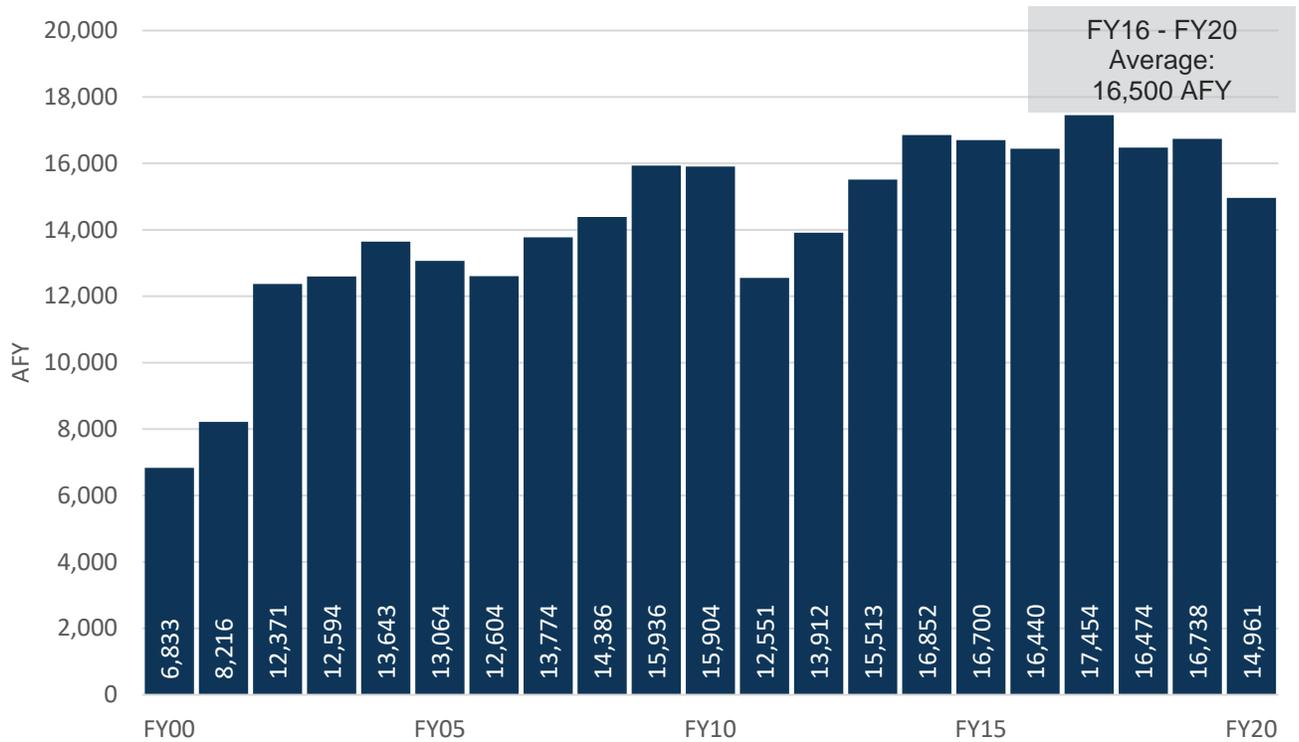
Most of the retail agencies in West Basin’s service area produce groundwater to meet a portion of their demands. West Basin supplies the remainder through imported water and/or recycled water. As described in **Section 6.3** and shown in **Figure 4-3**, groundwater production in West Basin’s service area has varied substantially over the last 20 years and declined significantly in the last five years. In Fiscal Year (FY) 2019 and FY 2020, approximately 20,000 AFY of groundwater was pumped within West Basin’s service area, compared with over 30,000 AFY on average prior to FY 2016. West Basin consulted with each retail agency during the UWMP planning process to assess their future plans for groundwater production in the service area. Most retail agencies indicated that they plan to increase their groundwater production activities in the near term. Based on these projections, West Basin assumes that long-term groundwater supply will increase to approximately 30,000 AFY by 2030 and continue at this level through 2045.

Figure 4-3: Groundwater Pumping Within West Basin Service Area



As shown in **Figure 4-4**, West Basin’s retail recycled water deliveries within its service area have been relatively consistent over the past decade, averaging roughly 16,500 AFY over the last five years. West Basin expects to complete an updated RWMP in 2021 that which includes projections for recycled water for retail use and groundwater replenishment. Based on 2021 RWMP Scenario A, retail deliveries of recycled water are projected to increase from approximately 15,000 AFY in 2020 to 30,300 AFY by 2025 and 31,700 AFY by 2030. Increases in recycled water use is expected to offset potable demands.

Figure 4-4: Non-Potable Recycled Water Deliveries Within West Basin Service Area



4.1.3 Net West Basin Retail Demand Projections

Based on the total service area demand and local supply assumptions described above, West Basin projected net demand on the total service area through 2045. These projections are shown in **Table 4-2**.

Table 4-1: 2020–2045 West Basin Demand Projections (AFY)

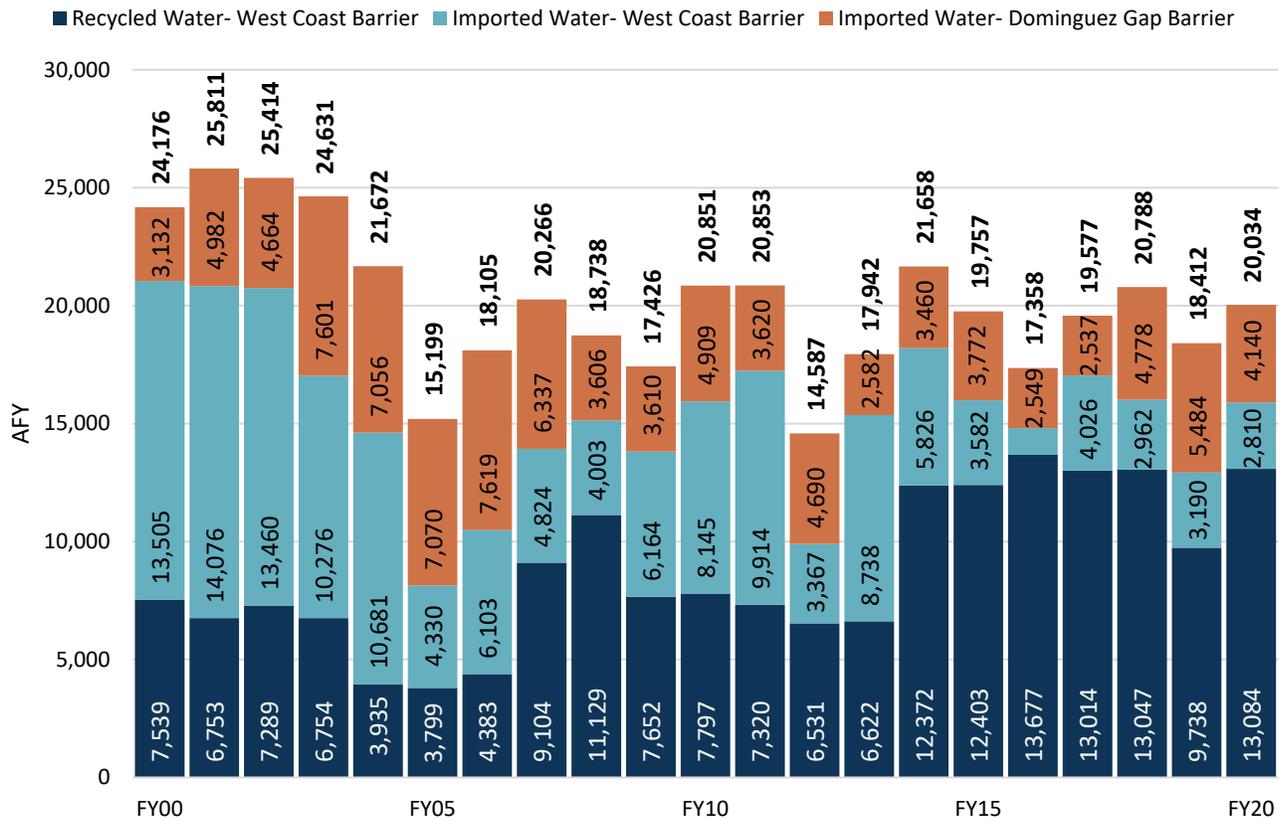
	2020	2025	2030	2035	2040	2045
Total West Basin Service Area Retail Demand	141,327	151,520	151,260	151,550	151,160	151,260
Local Groundwater Supplies	20,556	25,330	30,100	30,100	30,100	30,100
WEST BASIN NET RETAIL DEMAND¹	120,770	126,190	121,160	121,450	121,060	121,160

¹West Basin total retail demand is the service area retail demand minus the groundwater supply. It includes recycled water and imported water demand.

4.2 Groundwater Replenishment Demand

West Basin currently supplies advanced treated recycled water and imported water to WRD for injection at the West Coast Basin Seawater Barrier, operated by the Los Angeles County Department of Public Works. West Basin also supplies imported water to WRD for injection in the Dominguez Gap Barrier, while the Los Angeles Department of Water and Power (LADWP) supplies advanced treated recycled water. As shown in **Figure 4-5**, West Basin has averaged roughly 19,200 AFY of replenishment deliveries during the past decade.

Figure 4-5: Historic West Basin Replenishment Supplies



Looking forward, both barriers are approved for injection using 100% advanced treated recycled water, but imported water has been used to meet the additional barrier water demand when recycled water is not available. A key assumption for ongoing replenishment demand is the recycled/imported supply mix, which reflects how much of total barrier demand is met with recycled water. The goal for each barrier project is to meet 100% of demand with recycled water.

West Basin considered a range of replenishment demand scenarios and chose to include Scenario A from the West Basin RWMP, which assumes that total replenishment increases to 44,600 AFY from an extra 10 million gallons per day (MGD) of recycled water flows to the West Coast Basin Barrier and another 18 MGD of new groundwater augmentation projects supplied entirely by recycled water. Scenario A is associated with the large increased replenishment activities in the West Coast Groundwater Basin described in WRD’s WIN 4 ALL program (Water Replenishment District , 2021).

Table 4-3 shows the projected groundwater replenishment supplies by West Basin through 2045. By 2025, all groundwater replenishment demand will be met with recycled water. West Basin's projected groundwater replenishment supply will be used for expanded West Coast Basin Barrier injection and additional groundwater augmentation to build storage and bolster groundwater supplies. The projected groundwater replenishment supply corresponds with West Basin's 2021 RWMP Scenario A. It is expected that West Basin will discontinue providing imported water to the Dominguez Gap Barrier within the next few years. Current plans indicate that the barrier will be maintained with 100% recycled water from LADWP.

Table 4-2: Current and Projected Replenishment Groundwater Supply (AFY)

REPLENISHMENT SUPPLY SOURCE	2020	2025	2030	2035	2040	2045
Imported Water	6,950	-	-	-	-	-
Recycled Water	13,084	20,000	29,000	39,000	44,600	44,600
TOTAL:	20,034	20,000	29,000	39,000	44,600	44,600

4.3 Summary of West Basin Demand Projections

Based on the West Basin retail demand projections presented in **Section 4.1** and groundwater replenishment demand projections presented in **Section 4.2**, West Basin's total demand projections through 2045 are presented in **Table 4-4**. Note that these are not total service area demands, since some demands in the service area will be met with local supplies from retail agencies.

Table 4-3: 2020–2045 West Basin Demand Projections (AFY)

	2020	2025	2030	2035	2040	2045
Retail Demands (from Table 4-2)	120,770	126,190	121,160	121,450	121,060	121,160
Replenishment Demands (from Table 4-3)	20,034	20,000	29,000	39,000	44,600	44,600
TOTAL DEMANDS	140,804	146,190	150,160	160,450	165,660	165,760

Note: Total demand includes potable water and recycled water supplied by West Basin, but it does not reflect total service area demands, since some of these demands in the service area will be met with local supplies (i.e. groundwater) from retail agencies.

5 URBAN WATER MANAGEMENT PLAN SBX7-7 Baseline, Targets and 2020 Compliance

With the adoption of the Water Conservation Act of 2009, also known as SBX7-7, California is required to reduce urban per capita water use by 20% by the year 2020. This chapter summarizes the SBx7-7 water use reduction targets and 2020 compliance for West Basin’s retail agencies.

The Water Conservation Bill of 2009 (SBx7-7) requires individual retail water suppliers to set water conservation targets for 2020 to support an overall state goal of reducing urban potable per capita water use by 20% by 2020.

IN THIS SECTION

- Baselines & Targets

Individual supplier conservation targets must be determined using one of four methods with a baseline consumption that is calculated using the specific guidelines described in Department of Water Resources’ (DWR) Urban Water Management Plans (UMWP) Guidebook for Urban Water Suppliers (DWR Guidebook).

As a regional water supply wholesale agency, West Basin is not required to report baseline or target demands in keeping with the Water Conservation Act of 2009. However, West Basin’s investments in water conservation have helped its retail agencies achieve their individual SBx7-7 water use reduction targets through measures discussed in Chapter 9 (Demand Management Measures). West Basin has elected to use its 2020 UWMP to report on the successful efforts of West Basin and its retail agencies to achieve their respective 2020 per capita targets.

The information presented in this chapter compiles the individual retail agency per capita water demand data reported in each individual UWMP to provide an understanding of per capita water use across the West Basin service area.

5.1 SBX7-7 Baselines and Target Summary

For the 2010 and 2015 UWMPs, a group of West Basin retail agencies elected to use West Basin's 2010 and 2015 UWMP as the reporting mechanism for a Regional Alliance to meet the per capita baseline and target reporting requirements of the Water Conservation Bill of 2009. Not all of West Basin's retail agencies elected to participate in the Regional Alliance. Principally, the investor-owned companies (California American Water Company, California Water Service, and Golden State Water Company) decided not to participate because much of their jurisdictions are outside of West Basin's service area and they prefer to report as individual companies for SBx7-7 compliance. The Regional Alliance agencies worked with West Basin to establish water use and conservation targets for 2015 and 2020 as an alliance that followed the DWR Guidebook. They also collaborated on implementing the recycled water and conservation programs and projects that were needed to meet these targets and to support California's conservation as a way of life initiative.

For 2020 UWMPs, each retail agency has chosen to individually report compliance with the Water Conservation Bill of 2009 in each of their own 2020 UWMPs. To provide the per capita water use perspective for the entire West Basin service area, **Table 5-1** presents the final per capita targets and actual per capita use for each retail agency as well as weighted values for the West Basin service area. To help meet each individual 2020 use target, West Basin collaborated with its retail agencies to implement their Water Use Efficiency Master Plan. **Chapter 9** presents the water use efficiency measures that contributed to the success of meeting the SBx7-7 targets.

Table 5-1. West Basin Retail Agencies 2020 Population, Per-Capita Use and Per-Capita Targets

	2020 POPULATION	2015 ACTUAL GPCD	2020 TARGET GPCD	2020 ACTUAL GPCD
California American Water Company		149	187	
California Water Service - Dominguez System		196	173	
California Water Service - Hermosa/ Redondo System		100	128	
California Water Service - Palos Verdes System		213	223	
City of El Segundo		391	411	
Golden State Water Company - Culver City System		122	142	
Golden State Water Company - Southwest System		89	121	
City of Hawthorne (Cal Water)		82	94	
City of Inglewood		90	112	
City of Lomita		89	115	
Los Angeles County Waterworks District #29		288	237	
City of Manhattan Beach		115	144	
TOTAL				
AVERAGE WEIGHTED BY POPULATION				

Note: Values are from each agency's 2015 UWMP and the table will be updated pending receipt of each agency's Draft 2020 UWMP.



URBAN WATER MANAGEMENT PLAN

Water Supply Characterization

This chapter provides an overview of the current and future water supplies needed to meet the expected demands and enhance reliability within the West Basin service area.

It is West Basin’s mission to provide a safe and reliable supply of high-quality water for the communities it serves. West Basin continues to further diversify its water supply portfolio in response to the continued challenges of imported water being impacted by climate change and the more frequent droughts associated with it. Increasing regulatory restrictions on State Water Project (SWP) exports through the Sacramento-San Joaquin Delta are also contributing to current challenges. West Basin’s diversification strategy consists of expanded recycled water production and distribution, increased conservation savings, and exploration of ocean water desalination supply development.

IN THIS SECTION

- Existing Water Supplies
- Future Water Supplies
- Water Supply Analysis

This section provides an overview of the current and future water supplies needed to meet the expected demands and enhance reliability within the West Basin service area. Although West Basin does not provide all the supplies needed to meet these demands, this 2020 Urban Water Management Plan provides a complete picture of the historical and projected supplies to be used by its retail agencies to meet the overall demand within West Basin’s service area.

6.1 Water Supply Overview

Since its formation in 1947, West Basin has fulfilled its responsibility of providing service area communities with supplemental water supplies to meet regional demands. Prior to West Basin, the typical retail water supplier operating within the area relied completely on groundwater.

West Basin's primary supply source has been imported water from Metropolitan. Imported water was initially delivered exclusively from the Colorado River until the 1970s, when the SWP began operating and West Basin received a combination of Colorado River water and SWP water. In the 1990s, West Basin began increasing its development of local supplies in response to the declining reliability of imported water. A combination of regulatory constraints on supplies from the Bay-Delta, the increasing frequency of cyclical droughts, and uncertainties surrounding climate change have justified the continued need to develop local supplies and aggressively pursue reducing water demand through conservation. West Basin has been able to support the diversification of supplies available to its retail agencies primarily through the development of recycled water supplies and conservation. Imported and recycled water supplies are served directly to West Basin's retail agencies and indirectly as replenishment supplies necessary to maintain groundwater production.

West Basin retail water supplies and groundwater use within West Basin's service area over the past 20-plus years are shown in **Figure 6-1**, while **Figure 6-2** presents the volume of replenishment supplies provided by West Basin over the same time period. As shown in the figures, conservation and recycled water have enabled West Basin to improve the reliability of its supplies to its retail agencies by reducing imported water demand while supporting population and economic growth in the region.

Figure 6-1. Historic West Basin Service Area Retail Demand by Water Type

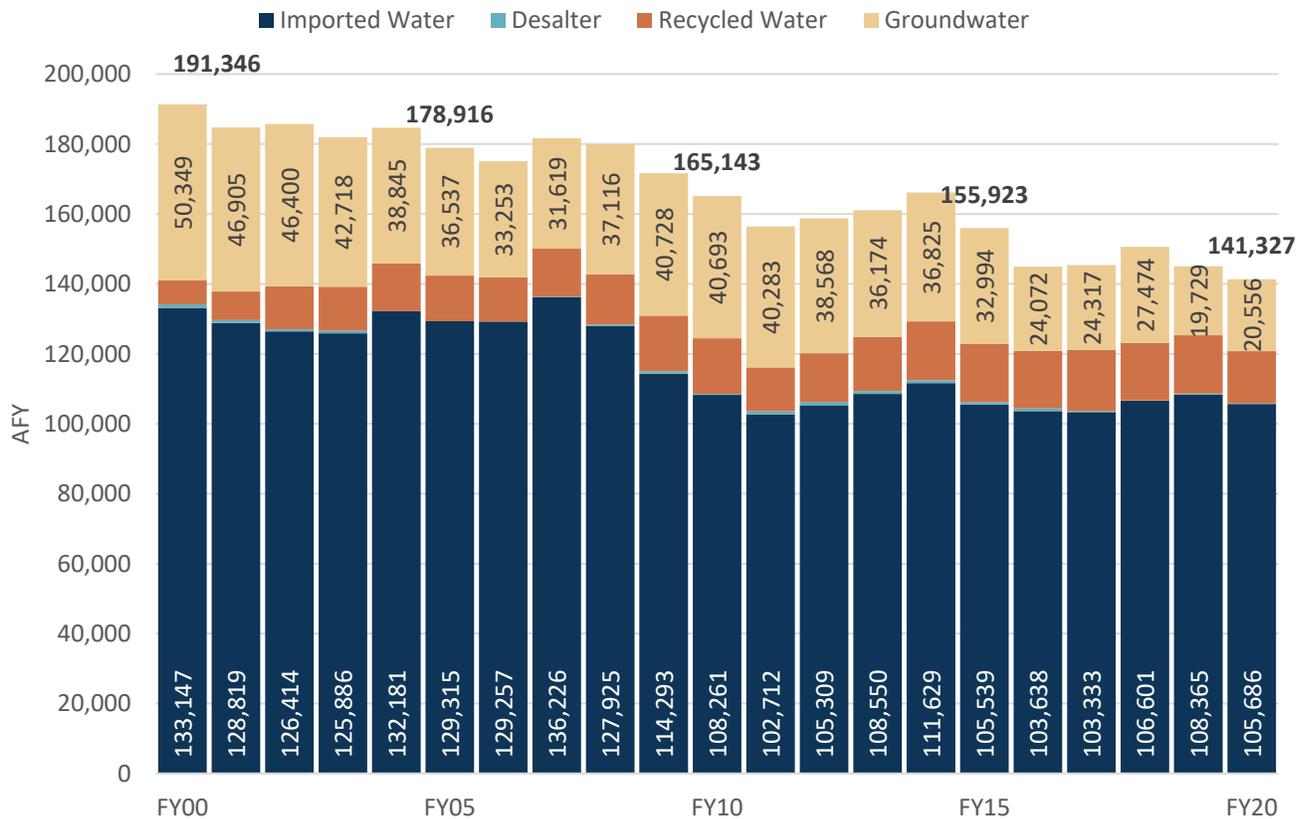
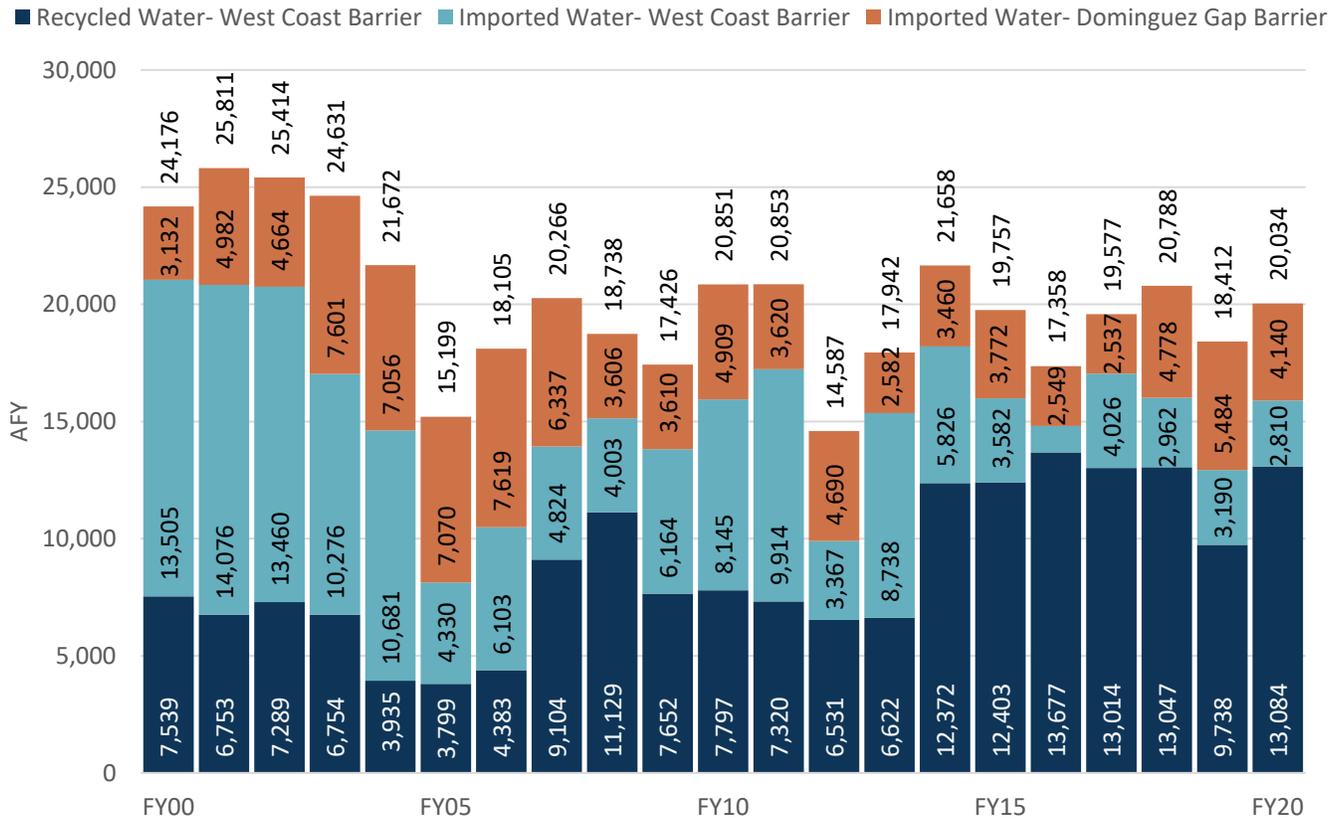


Figure 6-2. Historic West Basin Replenishment Supplies



6.2 Imported Water

West Basin's imported water comes from the SWP and Colorado River via Metropolitan pipelines and aqueducts. Metropolitan's primary purpose is to provide a supplemental supply of water for domestic and municipal uses at wholesale rates to its member agencies. Metropolitan's planning strategy continues to balance available local and imported water resources and member agencies' demands within Metropolitan's service area.

This section describes Metropolitan's Colorado River and SWP supplies based on the Draft Metropolitan 2020 Urban Water Management Plan (Metropolitan Water District of Southern California, March 2021).



Colorado River

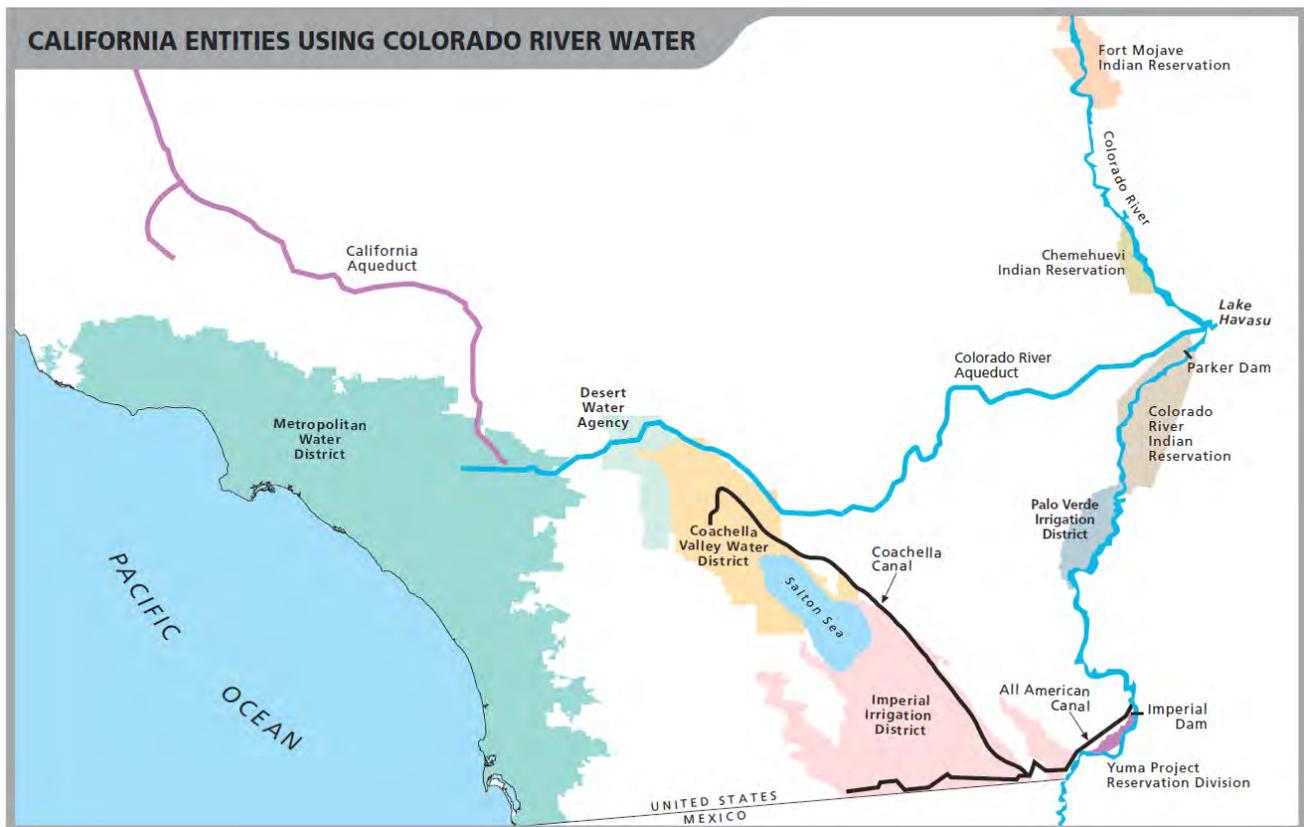
6.2.1 Colorado River Supplies

The Colorado River was Metropolitan’s original source of water following its establishment in 1928. Metropolitan has a legal entitlement to receive water from the Colorado River under a permanent service contract with the United States Secretary of the Interior. The Colorado River Aqueduct, which has a capacity of 1.25 million acre-feet per year, is owned and operated by Metropolitan. It transports water from Lake Havasu, at the border of California and Arizona, approximately 242 miles west to its terminus at Lake Mathews in Riverside County and Metropolitan’s service area. The Colorado River Aqueduct and its California water users are shown in **Figure 6-3**.

Over the years, Metropolitan has increased supply reliability of the Colorado River through programs that it helped fund and implement, including:

- Farm and irrigation district conservation programs
- Improved reservoir system operations
- Land management programs
- Water transfers and exchanges through arrangements with:
 - Agricultural water districts in southern California
 - Entities in Arizona and Nevada that use Colorado River water
 - US Department of the Interior, Bureau of Reclamation (USBR)

Figure 6-3. Colorado River Aqueduct (Metropolitan Water District of Southern California, March 2021)



6.2.2 State Water Project Supplies

Metropolitan imports water from the SWP, owned by the State of California and operated by the California Department of Water Resources (DWR). This project transports Feather River water stored in and released from Oroville Dam and conveyed through the Bay-Delta, as well as unregulated flows diverted directly from the Bay-Delta, south via the California Aqueduct to four delivery points — one from the California Aqueduct's West Branch at Castaic Lake and three from the East Branch along the northeastern portion of Metropolitan's service area between Devil's Canyon Power Plant and Lake Perris. The southern portion of the SWP is shown in **Figure 6-4**.

Figure 6-4. Southern Portion of the SWP (State Water Project, 2021)



In 1960, Metropolitan signed a water supply contract with DWR for participation in the SWP. Metropolitan is one of 29 agencies that have long-term contracts with DWR and are participants in the SWP. It is the largest SWP agency in terms of the number of people it serves (19.2 million), the share of SWP water that it is allocated (approximately 46%), and the percentage of total annual payments made to DWR (approximately 53% in 2020).

6.2.3 Supply Capabilities

The Metropolitan 2020 Urban Water Management Plan (UWMP) reports on Metropolitan's water reliability and identifies projected supplies to meet the long-term demand within its service area. For the Metropolitan 2020 UWMP, supply capabilities were evaluated using the following assumptions for its imported supplies.

Colorado River Supplies

Colorado River supplies include Metropolitan's basic Colorado River apportionment as well as supplies that result from existing and committed programs, including those from the Imperial Irrigation District System Conservation Program, the implementation of the Quantification Settlement Agreement, related agreements, and the exchange agreement with San Diego County Water Authority. Projections for Colorado River supplies for the 2020 UWMP are based on the USBR Colorado River Simulation System modeling developed in August 2020, which is the latest available at the time of production of this plan. USBR modeling is used to estimate Metropolitan's basic apportionment and the availability of Quantification Settlement Agreement and other related programs.

In response to declining reservoir levels, the Lower Basin Drought Contingency Plan was signed in 2019. This agreement incentivizes storage in Lake Mead and requires that certain volumes of water be stored in Lake Mead under certain Lake Mead elevation levels through 2026. Once Lake Mead's water level falls below an elevation of 1,045 feet, Metropolitan has agreed to store a specified volume of water in Lake Mead to create an intentional surplus for drought conditions as part of the Drought Contingency Plan. The goal of this agreement is to keep Lake Mead above critical elevations, and overall, it increases Metropolitan's flexibility to store water in Lake Mead in greater volumes and to accept delivery of stored water to fill the Colorado River Aqueduct as needed.

State Water Project Supplies

State Water Project (SWP) supplies are estimated using the 2019 Delivery Capability Report (Department of Water Resources, August 2020). The 2019 SWP Delivery Capability Report presents DWR estimates of the amount of SWP deliveries for current (2020) conditions and SWP deliveries for 20 years in the future considering only currently operating and existing SWP facilities. Any changes in supply reliability that would result from new facilities proposed under the Delta Conveyance Project and Sites Reservoir are not included. These estimates incorporate restrictions on SWP and Central Valley Project operations in accordance with water quality objectives established by the State Water Resources Control Board, the biological opinions of the US Fish and Wildlife Service and National Marine Fisheries Service issued on October 21, 2019, and the Incidental Take Permit issued by the California Department of Fish and Wildlife on March 31, 2020. In addition, these estimates incorporate amendments to the Coordinated Operations Agreement between the SWP and Central Valley Project made in 2018. Under the 2019 SWP Delivery Capability Report - Existing Condition Scenario, the delivery estimates for the SWP for 2020 conditions as a percentage of Table A amounts are 58% under a long-term average condition.

In dry, below-normal conditions, Metropolitan has increased the supplies received from the California Aqueduct by developing flexible Central Valley/SWP storage and transfer programs. Over the years, under the pumping restrictions of the SWP, Metropolitan has collaborated with the other contractors to develop numerous voluntary Central Valley/SWP storage and transfer programs. The goal of these storage/transfer programs is to develop additional dry-year supplies that can be conveyed through the California Aqueduct during dry hydrologic conditions and to meet regulatory restrictions.

Storage

A key component of Metropolitan's water supply capability is the amount of water in Metropolitan's storage facilities. Over the past two decades, Metropolitan has developed a large regional storage portfolio that includes both dry-year and emergency storage capacity. Storage is a key component of water management and enables the capture of surplus amounts of water in both normal and wet climate and hydrologic conditions when it is plentiful for supply and environmental uses. Stored water can then be used in dry years and in conditions where augmented water supplies are needed to meet demands.

In developing the supply capabilities for the 2020 UWMP, Metropolitan assumed the current (2020) storage levels at the start of simulation and used the median storage levels going into each of the five-year increments based on the balances of supplies and demands. Under the median storage condition, there is an estimated 50% probability that storage levels would be higher than the assumption used, and a 50% probability that storage levels would be lower than the assumption used. All storage capability figures shown in Metropolitan's 2020 UWMP reflect actual storage program conveyance constraints. It is important to note that under some conditions, Metropolitan may choose to implement its Water Supply Allocation Plan to preserve storage reserves for a future year instead of using the full supply capability. This can result in impacts at the retail level even under conditions where there may be adequate supply capabilities to meet demands.

6.2.4 Imported Water Reliability

Metropolitan developed estimates of future demands and supplies from local sources and from Metropolitan sources based on 96 years (1922–2017) of historic hydrologic conditions. The 96-year period starting in 1922 was chosen because the CalSim II model used in the 2019 SWP Delivery Capability Report began in 1922. Supply and demand analyses for the single-dry-year and five-year drought scenarios were based on conditions affecting the SWP, as this supply availability fluctuates the most among Metropolitan’s sources of supply. Using the same 96-year period of the SWP supply availability, 1977 is the single driest year, and 1988 through 1992 are the five consecutive driest years for SWP supplies to Metropolitan (Metropolitan Water District of Southern California, March 2021).

Metropolitan compared estimated demands for a normal water year, single dry year, and droughts lasting at least five years with projected supplies to meet these demands.

The analysis showed that the region can provide reliable water supplies under both situations of the single driest year and a drought period lasting five consecutive years (Metropolitan Water District of Southern California, March 2021).

It should be noted that Metropolitan’s analysis assumed higher demands from West Basin than West Basin is projecting (in Chapter 4), so Metropolitan’s findings provide a supply reliability safety factor for West Basin.



6.3 Groundwater

West Basin does not supply groundwater to its retail agencies; however, groundwater is an important local supply source for the region, and West Basin does supply a significant portion of the water used for groundwater replenishment that is required to maintain two seawater intrusion barriers and replenish the groundwater basins. Groundwater from the West Coast Groundwater Basin (West Coast Basin) and Central Groundwater Basin (Central Basin) have historically represented 20–25% of the supply used to meet overall demand within West Basin’s service area. Within the last five years, however, groundwater production within West Basin’s service area has slowly declined and groundwater represented only 15–20% of total retail demand. Based on conversations with retail agencies, the decline in groundwater production was largely due to water quality concerns or inoperable groundwater infrastructure due to equipment failures and maintenance. Many retail agencies have ongoing or planned projects to increase their groundwater use, and the collective groundwater production is expected to return to historical levels.

A portion of West Basin’s water supply portfolio is desalinated brackish groundwater from the C. Marvin Brewer Desalter Facility (Desalter) and is discussed in **Section 6.5**.

6.3.1 Basin Description and Water Rights

West Basin’s service area overlies the adjudicated West Coast Basin and is the source of most of the pumping within West Basin’s service area. Both California American Water Company and California Water Service pump some groundwater from the Central Basin, which is adjacent to the West Coast Basin. The West Coast Basin covers approximately 160 square miles in the Southwest part of Los Angeles and is bounded on the north by the Baldwin Hills and the Ballona Escarpment, on the east by the Newport-Inglewood Uplift, on the south by San Pedro Bay and the Palos Verdes Hills, and on the west by Santa Monica Bay. Aquifers in the West Coast Basin are generally confined and receive the majority of their natural recharge from adjacent groundwater basins or from the Pacific Ocean (seawater intrusion). **Figure 6-5** displays the location of the West Coast Basin and West Basin’s service area.

In the early 1940s, extensive over pumping of the West Coast Basin led to critically low groundwater levels, resulting in seawater intrusion along the coast and serious overdraft. Annual pumping prior to the adjudication of groundwater rights in the early 1960s reached levels as high as 94,100 acre-feet (AF). In 1961, the West Coast Basin was adjudicated. The adjudication limits the allowable annual extraction of groundwater per water rights holder within the West Coast Basin in order to prevent seawater intrusion and unhealthy groundwater levels. As part of the adjudication, the court appointed DWR to serve as Watermaster to account for all water rights and groundwater extraction amounts per year (West Coast Groundwater Basin, 2021). The adjudication for the West Coast Basin was set at 64,468.25 acre-feet per year (AFY). This amount was set higher than the natural replenishment amounts, creating an annual deficit known as the “Annual Overdraft.” To combat this Annual Overdraft, the Water Replenishment District (WRD) purchases and recharges additional water to make up for the overdraft.

In December 2014, the Superior Court granted a motion by WRD and other parties to amend the West Coast Basin Judgment to establish a legal framework for the storage and extraction of stored water in the West Coast Basin. The Judgment Amendment permits the storage of up to 120,000 AF, which is the available, safe storage capacity of that basin. The legal framework permits a groundwater pumper with adjudicated rights to store water and subsequently extract that stored water without the extraction counting against its water rights and without having to pay the replenishment assessment. The Judgment Amendment makes possible the storage of “surplus” imported water in the rare instances when it is available for use in the more frequent instances when it is not, further enhancing the region’s water supply reliability. Pursuant to the Judgment Amendment, WRD assumed administrative

Watermaster duties from DWR on July 1, 2015. Copies of the original court order Adjudication Judgement and 2014 Amended Judgment are provided in **Appendix G**.

Two of West Basin’s retail agencies, California American Water Company and California Water Service, also overlie the Central Basin and import Central Basin groundwater from outside the West Basin service area to meet their demand. Together, these agencies have rights to pump up to 8,655 AFY of groundwater in the Central Basin.

Table 6-1 lists the groundwater pumping rights within West Basin’s service area by pumper, which includes 42,195 AFY from the West Coast Basin and 8,655 AFY from the Central Basin.

Figure 6-5. West Coast Groundwater Basin

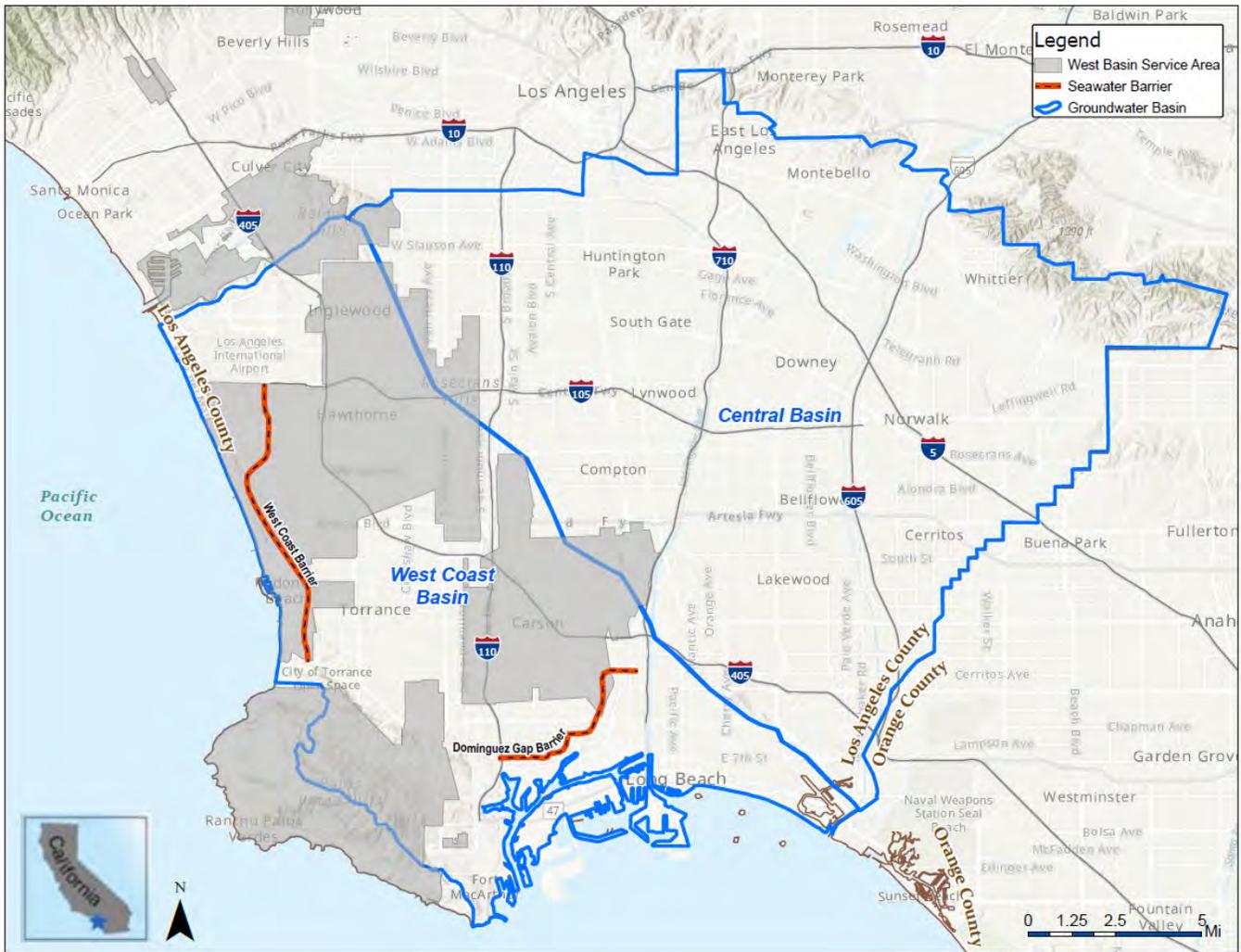


Table 6-1. Groundwater Pumping Rights within West Basin Service Area, AFY

PUMPER	BASIN	ADJUDICATED RIGHTS
California American Water Co.	Central Basin	2,175
California Water Service – Dominguez	Central Basin	6,480
California Water Service – Dominguez	West Coast Basin	10,417
California Water Service Co. – Hawthorne	West Coast Basin	1,882
California Water Service Co. – Hermosa/Redondo	West Coast Basin	4,070
Golden State Water Co.	West Coast Basin	7,502
City of El Segundo	West Coast Basin	953
City of Inglewood	West Coast Basin	4,450
City of Lomita	West Coast Basin	1,352
City of Manhattan Beach	West Coast Basin	1,131
WEST BASIN RETAIL AGENCIES SUBTOTAL		40,415
Non-Retail Water Pumpers, within West Basin Service Area	West Coast Basin	10,435
WEST BASIN SERVICE AREA SUBTOTAL		50,850

Source: West Coast Basin Watermaster Report, FY 2018-2019 (Water Replenishment District of Southern California, November 2019)

WRD was formed in 1959 for the purposes of protecting the groundwater resources of the West Coast Basin and Central Basin. To maintain a balanced groundwater basin while limiting seawater intrusion, WRD purchases imported water and recycled water supplies for replenishment of seawater barriers, which are a series of coastal injection wells that form a barrier to ensure the groundwater level near the ocean stays high enough to keep seawater from seeping into a basin. These purchases of imported water and recycled water from West Basin are for injection at the West Coast and Dominguez Gap Seawater Intrusion barriers, shown on **Figure 6-5**. The West Coast Barrier has 153 injection wells, and the Dominguez Gap Barrier has 41 injection wells.

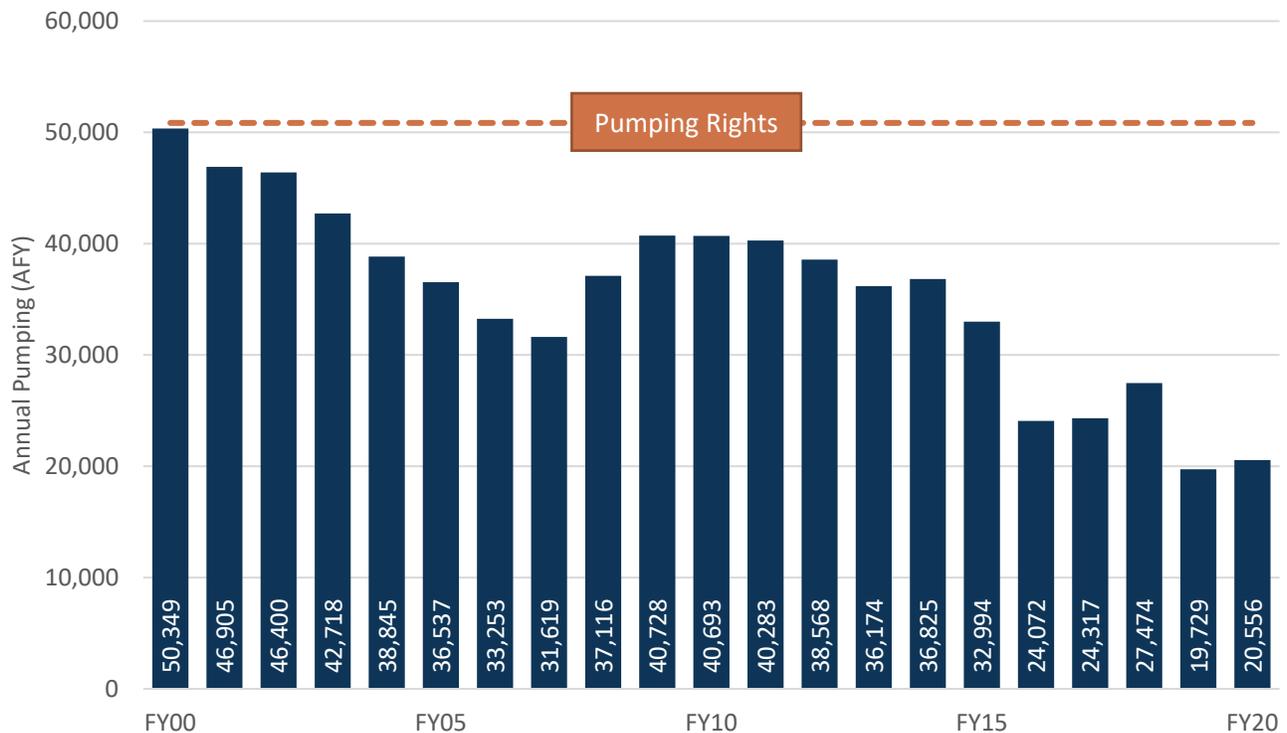
6.3.2 Historic and Current Groundwater Supply

The volume of groundwater pumped and used within West Basin's service area by groundwater pumpers in each alluvial for the last five years is shown in **Table 6-2**. The total historic pumping since 1990 within West Basin's service area and by its retail agencies compared to the pumping rights is shown in **Figure 6-6**. As evidenced in **Figure 6-6**, groundwater production has declined in the last five years and is currently less than half the volume of the pumping rights in the service area. This is due to strong water conservation efforts as a result of drought, short-term water quality problems with some retail agencies' groundwater production systems, and a temporary tightening of the lease market that has reduced available rights. The reduction in pumping caused a rebound in groundwater levels in the West Coast Basin despite the lack of rainfall. However, many retail agencies plan to increase their groundwater production in the near term as they complete projects to construct treatment systems, rehabilitate production infrastructure, or use more stored groundwater as groundwater recharge is increased.

Table 6-2. Groundwater Volume Pumped (AFY) and Used in West Basin’s Service Area (DWR Table 6-1)

GROUNDWATER TYPE	LOCATION OR BASIN NAME	2016	2017	2018	2019	2020
Alluvial Basin	West Coast Basin	20,872	20,714	24,251	16,872	18,124
Alluvial Basin	Central Coast Basin	3,200	3,603	3,223	2,857	2,432
TOTAL:		24,072	24,317	27,474	19,729	20,556

Figure 6-6. Historic Groundwater Pumping in West Basin's Service Area



6.3.3 Projected Groundwater Supply

As shown in **Table 6-3**, West Basin assumes that long-term groundwater supply will increase to about 30,000 acre-feet per year, which was the average production from FY11 to FY20, by 2030 and continue at this level through 2045. **Table 6-3** lists the projected groundwater production within West Basin’s service area.

Table 6-3. Projected Groundwater Production (AFY) in West Basin’s Service Area

BASIN	2025	2030	2035	2040	2045
West Coast Basin	23,114	26,056	26,056	26,056	26,056
Central Basin	3,554	4,044	4,044	4,044	4,044
TOTAL:	26,667	30,100	30,100	30,100	30,100

6.4 Wastewater and Recycled Water

West Basin's recycled water supply source is treated wastewater effluent from the City of Los Angeles' Hyperion Water Reclamation Plant (Hyperion). The City of Los Angeles has operated Hyperion, located adjacent to West Basin's service area, since 1894. Hyperion was initially built as a raw sewage discharge plant that has been upgraded over the years from partial secondary treatment in 1950 to full secondary treatment in the 1990s, improving treated wastewater discharge quality into the Santa Monica Bay. Hyperion has a maximum daily flow capacity of 450 million gallons per day (MGD) and a peak wet weather flow capacity of 800 MGD.

Over the past five years, West Basin has received an average of approximately 39,600 acre-feet per year of secondary-treated influent from Hyperion for further treatment at West Basin's Edward C. Little Water Recycling Facility (ECLWRF). All other flows through Hyperion are treated and discharged into the Pacific Ocean; however, the City of Los Angeles Sanitation and Environment department has partnered with the Los Angeles Department of Water and Power in a shared vision to recycle 100% of flows through Hyperion by 2035.

West Basin opened ECLWRF, which is still the only recycled water plant of its kind in the nation, in 1995. This facility has a current annual capacity of 62,700 acre-feet, with its fifth expansion completed in 2014. Although the City of Los Angeles strives to provide West Basin with a consistent quality of secondary effluent, the ECLWRF must accommodate inevitable fluctuations in influent quality.

In 2002, West Basin's ECLWRF was recognized by the National Water Research Institute as one of six National Centers for Water Treatment Technologies in the country. All of West Basin's recycled water is treated to meet California Code of Regulations Title 22 (Title 22) disinfected tertiary recycled water standards, and a portion is treated to even higher quality levels for specific uses. Title 22 addresses specific treatment requirements for recycled water and lists approved uses. West Basin's recycled water program is unique in that it provides a variety of recycled water qualities beyond basic tertiary Title 22 levels.

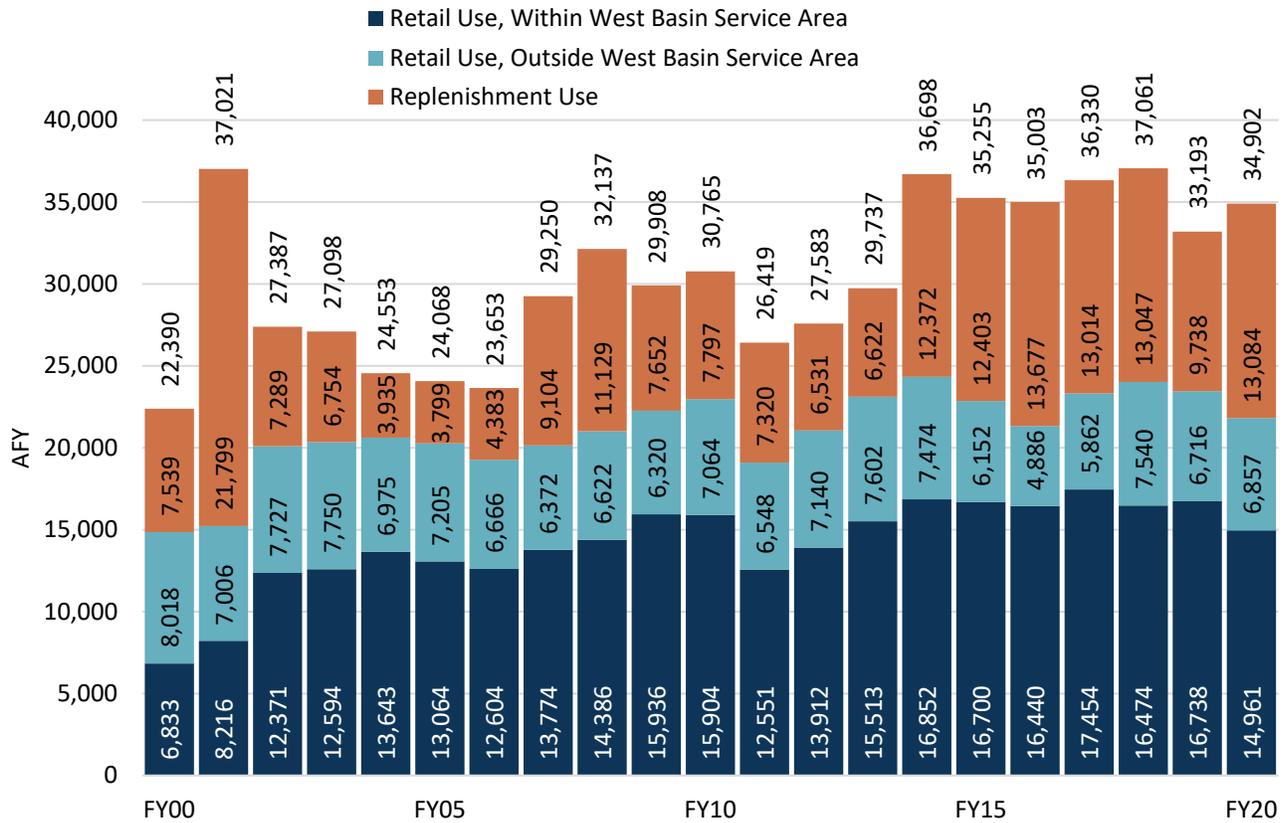
These five types of recycled product water are developed to meet specific customer needs as follows:

- **Disinfected Tertiary Water:** Secondary-treated wastewater meeting Title 22 regulations is produced for non-potable irrigation through a conventional treatment process of coagulation, flocculation, clarification, filtration, and disinfection. This water type is used mainly for landscape irrigation.
- **Advanced Treated Recycled Water:** This secondary-treated wastewater is pretreated by ozone and microfiltration followed by reverse osmosis (RO), ultraviolet light, and peroxide treatment, stabilization, and disinfection for groundwater recharge and seawater barrier replenishment.
- **Nitrified Water:** Disinfected tertiary water that is nitrified to remove ammonia is produced for use in refinery cooling towers.
- **Single-Pass Reverse Osmosis Water:** This is secondary-treated wastewater and tertiary disinfected recycled water that has undergone microfiltration and RO for low-pressure boiler feed water.
- **Double-Pass Reverse Osmosis Water:** This is secondary-treated wastewater and tertiary disinfected recycled water that has undergone microfiltration and two passes through RO for high-pressure boiler feed water.

In addition to providing recycled water for landscape, commercial, and industrial uses, West Basin produces advanced treated recycled water that WRD purchases for injection into the West Coast Basin Seawater Barrier, as discussed in **Section 6-3**. The groundwater replenishment water has the dual benefit of preventing seawater intrusion into the aquifers of the West Coast Basin and replenishing the water that is extracted by drinking water wells.

West Basin’s historic recycled water production since FY2000 is shown in **Figure 6-7**.

Figure 6-7. Historic West Basin Service Area Recycled Water Supply by Demand Type and Location

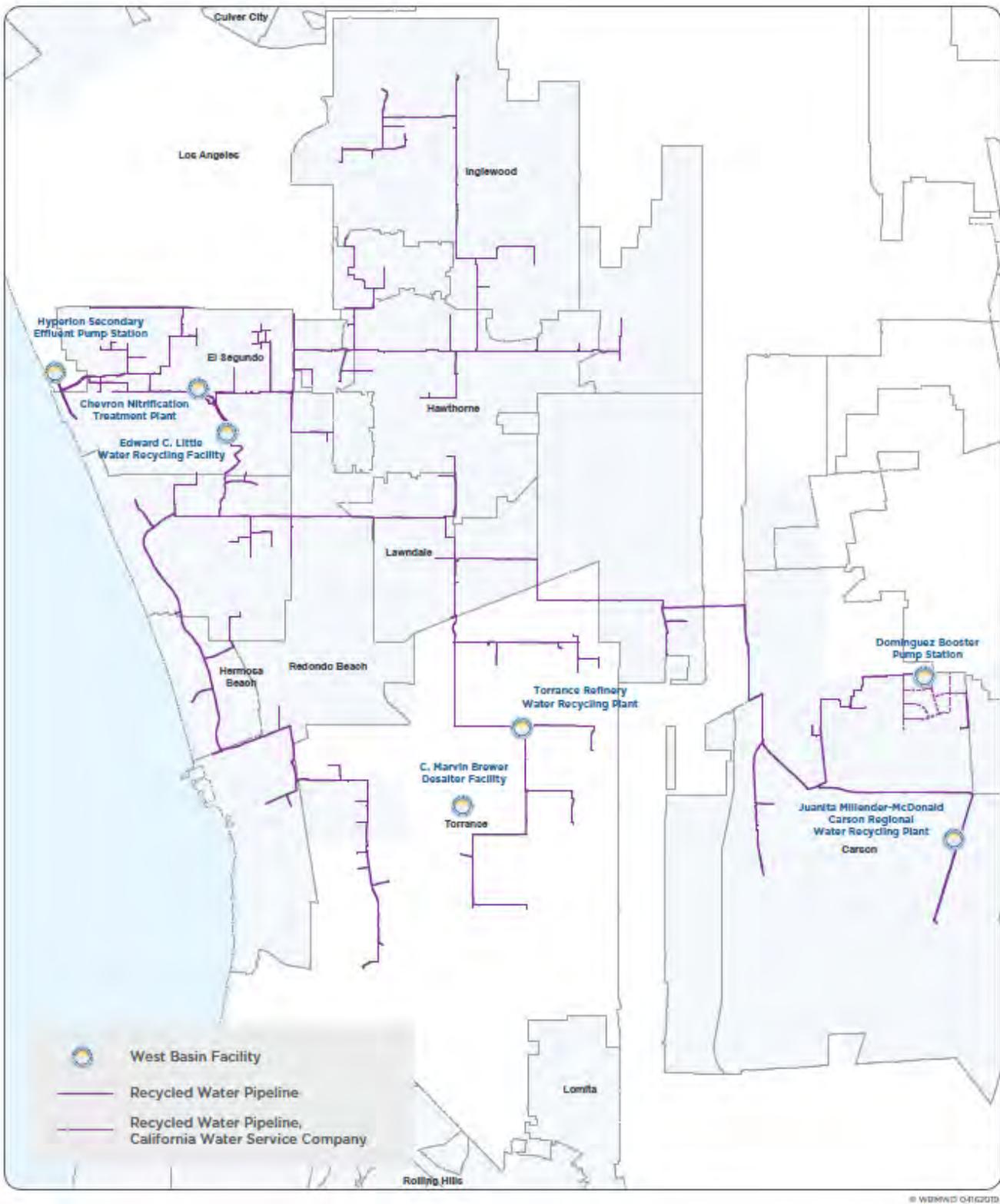


6.4.1 Recycled Water System

All recycled water is initially produced at ECLWRF as Title 22 water or advanced treated recycled water and is distributed to either end users or one of the three satellite facilities operated by West Basin. The satellite facilities treat the Title 22 water produced at the ECLWRF to customer-specific water needs (nitrified, single-pass reverse osmosis [RO], double-pass RO) to supply the different types of recycled product water to large customers that are often a longer distance from the ECLWRF. **Figure 6-8** shows the existing recycled water pipelines and locations of the ECLWRF (in El Segundo) as well as the satellite treatment facilities: the Torrance Refinery Water Recycling Plant (in Torrance), the Chevron Nitrification Treatment Plant (in El Segundo), and the Juanita Millender-McDonald Carson Regional Water Recycling Plant (in Carson).

As shown, West Basin’s recycled water system serves the cities of Carson, El Segundo, Gardena, Hawthorne, Hermosa Beach, Inglewood, Lawndale, Manhattan Beach, Redondo Beach, and unincorporated areas of Los Angeles County within its service area. In addition, West Basin delivers recycled water outside of its service area to the cities of Torrance and Los Angeles. The recycled water distribution infrastructure includes over 100 miles of pipelines and is separate from the potable drinking water system. All pipes, pumps, and other equipment used to transport recycled water are clearly identified as recycled water to distinguish them from the potable drinking water system.

Figure 6-8. Recycled Water Distribution System (Recycled Water Facilities Service Area Map, 2018)



6.4.2 Potential, Current, and Projected Recycled Water Uses

West Basin provides recycled water for a wide variety of uses, including:

- Groundwater Replenishment (Seawater Barrier)
- Industrial: Multi-Use and Nitrified, largely for refineries
- Irrigation: Cal-Trans, cemetery, colleges, golf courses, landscape, medians, multi-use, parks, and schools
- Construction
- Street Sweeping

According to West Basin's 2015 Urban Water Management Plan (UWMP), deliveries of recycled water within the service area were projected to reach 45,285 acre-feet (AF) by 2020. As shown in **Table 6-4**, actual sales in FY20 (34,903 AF) were lower than projected in West Basin's 2015 UWMP by approximately 10,400 AF. The difference is largely due to lower groundwater replenishment delivery and slower expansion of the recycled water distribution system than envisioned in the 2009 Recycled Water Capital Implementation Master Plan. Several of these projects have initiated design, implementation, and construction, and have been incorporated into the latest recycled water projections in the 2021 Recycled Water Master Plan (RWMP) (HDR, 2021).

Table 6-4. 2015 Recycled Water Use Projection Compared to 2020 Actual (DWR Table 6-5W)

The supplier will complete the table.

NAME OF RECEIVING SUPPLIER OR DIRECT USE BY WHOLESALER	2015 PROJECTION FOR 2020	2020 ACTUAL USE
WBMWD Retail Agencies (Multiple)	21,894	14,961
WRD (Replenishment Use)	17,000	13,084
City of Torrance	5,421	5,424
City of Los Angeles	970	1,433
TOTAL:	45,285	34,903

As part of the 2021 RWMP, a market assessment was conducted to identify potential future customers. New potential customers within a quarter mile and half mile of the existing system were identified as Tier 1 and 2 customers, respectively, that could be served with short lateral pipelines.

New potential customers that could be grouped and served through longer extensions of the existing system were also identified. The 2021 RWMP identified over 70,000 acre-feet per year (AFY) in new potential recycled water demands that could be served by West Basin.

The 2021 RWMP presents three distinct scenarios, each with a phased approach to maximize West Basin's recycled water deliveries, and provides a roadmap to increase West Basin's recycled water deliveries up to 65-70 million gallons per day by 2040.

The three 2021 RWMP scenarios are summarized below.

- **Scenario A:** Title 22 and groundwater augmentation focus. This scenario projects that retail recycled water within West Basin’s service area will double to 30,300 AFY by 2025 and 31,700 AFY by 2030. Additionally, recycled water use for the West Coast Basin Barrier and increased groundwater augmentation will be phased in to increase to an ultimate volume of 44,600 AFY in 2040.
- **Scenario B:** Title 22 and refinery focus. This scenario projects retail recycled water will triple within West Basin’s service area to 41,900 AFY by 2030 and continue increasing to 45,700 AFY by 2040. Recycled water use for the West Coast Seawater Barrier is assumed to increase to 19,000 AFY by 2025 and an ultimate 24,600 AFY by 2035.
- **Scenario C:** LA Harbor/Long Beach Focus. Much of the projected recycled water supply in this scenario would be delivered outside of West Basin’s service area to the LA Harbor and Long Beach. For retail recycled water use within West Basin’s service area, this scenario is similar to Scenario A through 2030, and then increases retail recycled water deliveries to 40,400 AFY by 2040. Recycled water use for the West Coast Basin Barrier is similar to Scenario B with an increased supply to 19,000 AFY by 2025 and 24,600 AFY by 2040.

The 2021 RWMP does not select a preferred scenario since the implementation plan is dependent on factors outside of West Basin’s control; however, for this UWMP, the projected recycled water supply in West Basin’s service, shown in **Table 6-5**, is based on Scenario A.

Table 6-5. Current and Projected Recycled Water Use within West Basin's Service Area (DWR 6-4W)

The supplier will complete the table.

NAME OF RECEIVING SUPPLIER OR DIRECT USE BY WHOLESALER	LEVEL OF TREATMENT	CURRENT AND PROJECTED RECYCLED WATER, AFY					
		2020	2025	2030	2035	2040	2045
Retail	Tertiary & Advanced	14,961	30,300	31,700	31,700	31,700	31,700
Water Replenishment District of Southern California	Advanced	13,084	20,000	29,000	39,000	44,600	44,600
TOTAL:		28,045	50,300	60,700	70,700	76,300	76,300

Note: Does not include retail recycled water use projections for outside of West Basin's service area.

6.4.3 Actions to Exchange and Optimize Future Recycled Water Use

West Basin generates interest in recycled water by contacting potential customers and cities with sites meeting the following conditions:

- Located near an existing recycled water main pipeline
- High water use potential
- Mandated to use recycled water and/or has expressed interest in using recycled water

For commercial and industrial customers, West Basin emphasizes that recycled water is an important tool for businesses beyond the benefits of water conservation. West Basin markets recycled water as a resource that is:

- Less expensive than potable water treated to similar quality standards
- More reliable than imported water
- Consistent with statewide goals for water supply and ecosystem improvement in the State Water Project and Colorado River systems

Other financial incentives are used to encourage recycled water use aside from West Basin providing recycled water at lower cost than potable water.

Some potential recycled water customers do not have the financial capability to pay for onsite plumbing retrofits necessary to receive recycled water. In some of these situations, West Basin advances funds for retrofitting that can later be reimbursed through water billing.

6.4.4 Potable Reuse

West Basin is currently implementing indirect potable reuse (IPR) of recycled water through its deliveries to the Water Replenishment District for the West Coast Basin Barrier. IPR is the process whereby advanced treated recycled water is introduced into an environmental buffer, such as a groundwater basin or surface water body, before additional treatment for potable use. West Basin plans to increase IPR in the future through projects that will use advanced treated recycled water to replenish the groundwater basin. This water will be available to retail agencies for extraction using their existing groundwater production facilities.

Some of the potential opportunities for West Basin to expand IPR deliveries in the future include:

- Expanding recharge to the West Coast Barrier
- Expanding recharge to the Dominguez Gap Barrier
- New recharge locations in the West Coast Basin
- Recharge in the Santa Monica Basin

Direct potable reuse (DPR) is the reuse of purified recycled water in a water supply system without a sufficient environmental buffer to meet IPR regulations. DPR is not currently practiced or permitted in California. In 2017, the State Water Board's Department of Drinking Water (DDW) was tasked with developing uniform water recycling criteria for DPR that is protective of public health on or before December 31, 2023. DDW released a Proposed Framework for Regulating DPR in California in 2018 as well as a second edition in 2019 and an addendum in March 2021.

The most common type of DPR that is being investigated by agencies such as Metropolitan and the Los Angeles Department of Water and Power is raw water augmentation where the purified recycled water is blended with untreated surface water and treated at a surface water treatment plant. West Basin has limited DPR options because it does not own or operate a surface water treatment plant. In addition, current recycled water use projections have identified beneficial use for West Basin's contracted supply from the City of Los Angeles. However, West Basin's history of purifying recycled water provides an opportunity for partnerships with other agencies pursuing DPR.

6.5 Desalinated Groundwater

West Basin owns the C. Marvin Brewer Desalter Facility, which began operating in July 1993. The Desalter was built on a site owned by California Water Service (Cal Water) in Torrance (shown in **Figure 6-8**), where it removes chloride from groundwater impacted by seawater intrusion in the West Coast Basin. The Desalter was initially intended to be a five-year pilot program to determine if brackish water could be economically treated to drinking water standards.

The Desalter originally used two wells to pump brackish water from a saline plume remaining within the West Coast Basin and treats the water using cartridge filters and reverse osmosis. The treated water from the Desalter is blended with potable water, stored on the Cal Water site in a 5 million gallon storage reservoir, and then delivered to the distribution system. Under the terms of an agreement with Cal Water, West Basin reimburses Cal Water to operate and maintain the Desalter. In 2005, the original two wells were replaced with one more productive well that has the capability to pump 1,600 to 2,400 acre-feet per year.

In recent years, production from the Desalter has declined. The volume of water produced at the Desalter from 2016 to 2020 is shown in **Table 6-6**. West Basin is currently planning to divest the Desalter from its supply portfolio in the near term; therefore, West Basin’s projected supply from the Desalter by 2025 is zero. It is possible that the agency that purchases the Desalter facility will continue operation of it and may sell some of the water within West Basin’s service area, which would offset West Basin’s imported water demand.

Table 6-6. Source Water Desalination (DWR Table 6-8DS)

The supplier will complete the table below.

PLANT NAME OR WELL ID	PLANT CAPACITY	INTAKE TYPE	SOURCE WATER TYPE	INFLUENT TDS	BRINE DISCHARGE	VOLUME OF WATER DESALINATED IN AFY				
						2016	2017	2018	2019	2020
C. Marvin Brewer Desalter	1120	Vertical Well	Groundwater	3,300	Sewer	779	284	50	238	124
TOTAL:						779	284	50	238	124

6.6 Water Exchanges and Transfers

Water transfers and exchanges are management tools to address increased water needs in areas of limited supply. Although transfers and exchanges of water do not generate new supply, these management tools distribute water from where it is abundant to where it is limited.

Metropolitan has played an active role statewide in securing water transfers and exchanges as part of its planning goals. Because West Basin is a member agency of Metropolitan, West Basin doesn't currently have the need or opportunity to directly pursue any water transfers. It is important to note that in the most recent historic drought, runoff in northern California watersheds in 2014 and 2015 were so low that virtually no transfer water was available, and Metropolitan was not able to use transfers from those sources to supplement available supplies. The lack of transfer water during very severe and prolonged droughts places greater dependence on stored water during shortages and illustrates the benefits of local supplies that reduce the demand on Metropolitan in dry years and times of shortage.

6.7 Stormwater

Stormwater is not currently used directly as a supply source, although precipitation helps replenish the unconfined aquifer of the Central Basin. In 2020, West Basin entered into a Stormwater Pilot Program between the City of Culver City and the Metropolitan Water District to include flow monitoring of excess stormwater runoff. Through this pilot study, the Culver Boulevard Stormwater Treatment Project is estimating to capture and treat stormwater from approximately 297 urban acres to offset up to 20 acre-feet of imported potable water supply.

In 2018, voters in Los Angeles County passed the Measure W "Safe Clean Water Program," designed to improve water quality, increase local water supply, and enhance communities. This program enables Los Angeles County to assess 2.5 cents per square foot of impermeable areas. Revenues from this program provide funding to implement watershed-based projects, local and regional projects, and public education. As part of the Greater Los Angeles Area Integrated Regional Water Management, West Basin participates on the South Santa Monica Bay Subregion Committee to review proposed local infrastructure projects for their eligibility to receive funding support in an effort to eliminate wasteful stormwater runoff by capturing supplies for treatment and water reuse.

Additionally, West Basin currently offers programs to support and incentivize onsite water capture and reuse through various rainwater and graywater programs available to water customers, including rain barrel distribution events. It is currently piloting a rain barrel home delivery program. West Basin also provides educational materials for outdoor water savings and rainwater harvesting. This is discussed in greater detail in **Chapter 9**.

6.8 Future Ocean Water Desalination Project

Since the early 1990s, West Basin has been at the forefront of the development of reliable local supplies that are independent of weather-induced shortages and offset a need for less reliable imported water from the oversubscribed Colorado River and the environmentally sensitive Sacramento-San Joaquin Bay Delta. This has taken the form of large-scale implementation of non-potable reuse and cutting-edge industrial uses of recycled water along with potable reuse through groundwater recharge and brackish groundwater recovery. The West Basin Board of Directors is committed to a water reliability strategy based on supply diversification to manage future risk and uncertainty. As a coastal water agency with viable sites for locating an ocean desalination facility, West Basin's Board has felt compelled to investigate how full-scale production can be accomplished in a cost-effective and environmentally responsible manner. As part of West Basin's continued effort to diversify its sources of supply and improve the reliability of its customer agencies, the identification and planning for ocean water desalination has been a logical and anticipated next step in the diversification program.

West Basin, as a Metropolitan member agency, has been a part of long-term regional efforts by Metropolitan to develop an integrated and effective resources strategy that will improve supply reliability locally as well as benefit the entire Metropolitan service area. The foundation of the integrated strategy can be found in the responsibility that southern California water agencies share in developing local supplies. The Integrated Resources Plan (IRP) is Metropolitan's long-term water reliability plan that is updated about every five years. As in previous IRPs, the 2015 IRP calls for a mix of imported and member agency local supply development and water use efficiency enhancements to meet future regional demands. In other words, the ability of Southern California to meet long-term demands for water is predicated in part on member and local agencies developing locally sourced water supplies not subject to the hydrologic variations that affect imported supplies.

Maintaining and diversifying water supplies is also a primary objective of the California 2020 Water Resilience Portfolio, the state's guiding water policy document. The Water Resilience Portfolio was developed through Executive Order N-10-19 directing state agencies to develop a set of actions to meet California's water needs through the 21st century. Like Metropolitan's IRP, the Water Resilience Portfolio notes that water diversification takes many forms, including better water use efficiency and eliminating water waste, recycled water, using captured rain and stormwater, and brackish and seawater desalination (California Water Resilience Portfolio, 2020).

6.8.1 Ocean Water Desalination Process

Desalination is the process of removing salinity from ocean water to provide a consumable water supply. Typical salt content in ocean water is over 35,000 milligrams per liter (mg/L), and California Standards recommend drinking water salt levels to be below 500 mg/L.

Today's ocean water desalination process removes salt, minerals, and impurities with cutting-edge membrane technologies and uses the following general process as described on West Basin's website and shown in Figure 6-9:

a. Intake System

Ocean water is brought to the desalination facility through an intake system. Several different types of intake systems exist, including open ocean intakes, screened intakes, and subsurface intakes; some facilities also draw spent ocean water from a cooling system from an existing nearby power plant. The intakes are designed for marine protection and must be designed to inhibit growth that would clog the intake pipes or facility.

b. Media Filtration

Filter the raw water to remove coarse material such as shells, sand, particles, and red tide material that can damage or prohibit the desalination process from occurring downstream. Filters can include sand filters, plastic disk filters, and cloth filters.

c. Ultrafiltration (UF) / Microfiltration (MF)

Filtered water is passed through a membrane that has thousands of hollow strands with pores on the walls that are 5,000 times smaller than a pinhole to remove microscopic material. UF/MF are low-pressure membrane processes that are designed to remove turbidity-causing particles such as suspended solids, bacteria, colloidal matter, and proteins. The water is still very salty after this process and is not ready for human consumption.

d. Reverse Osmosis

UF/MF water then passes through RO membranes for separation of freshwater molecules from salt and other dissolved compounds. RO is a pressure-driven process where water passes through the molecular structure of a thin membrane that removes salts, minerals, and impurities resulting in 99.8% removal of dissolved compounds in ocean water. As RO requires high pressures, large pumps are required to drive the process and result in high energy costs. **Figure 6-8** shows a diagram of the typical desalination process.

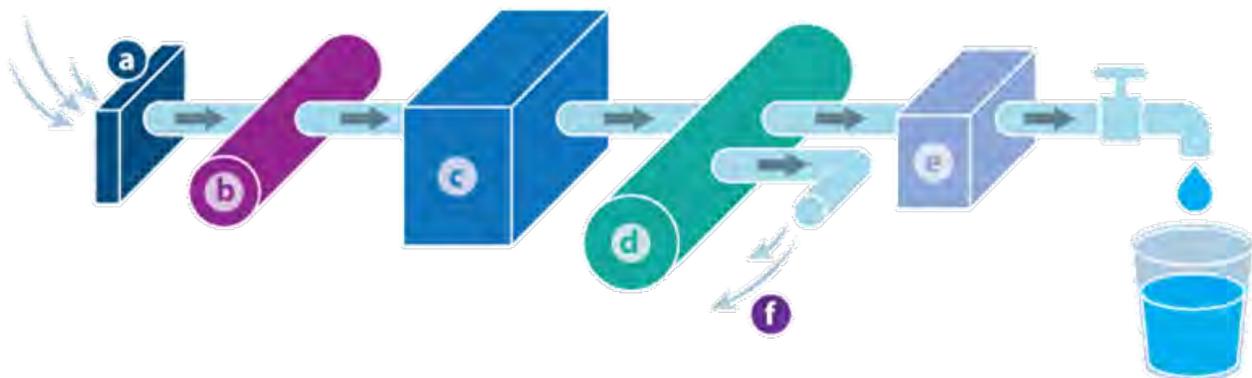
e. Post Treatment

After the UF/MF and RO processes, the water has to be re-mineralized and polished for human consumption, as all minerals have been removed that are needed for water stabilization. The water is run through a calcite filter or lime saturator followed by chlorine dosing for disinfection to meet drinking water standards.

f. Brine Disposal

The RO reject water, referred to as brine, must be disposed of. Brine consists of dissolved salt molecules and the concentration is twice as much as when the water was drawn into the facility.

Figure 6-9. Desalination Process (The West Basin Ocean Water Desalination Project, 2021)



6.8.2 West Basin’s Previous Efforts and Current Project Status

West Basin began a stepwise program to explore the systematic development of an environmentally responsible ocean water desalination facility in 2001. **Table 6-7** provides a timeline of many of West Basin’s efforts exploring ocean desalination, including a pilot study, demonstration facility, multiple technical studies, and, most recently, the certification of the Final Environmental Impact Report (EIR) for the Ocean Water Desalination Project (Desalination Project).

Table 6-7. Timeline of West Basin's Efforts to Explore and Develop an Ocean Water Desalination Facility

YEAR & PROJECT	DESCRIPTION
2001	West Basin begins exploring an ocean water desalination facility.
2002- 2009 DESALINATION PILOT STUDY	<p>West Basin initiated a multi-phase pilot study program to desalinate ocean water and evaluate the potential to provide desalinated water as a viable drinking water supply for the region. The pilot plant was located at the El Segundo Power Generating Station in the city of El Segundo and expanded to test many types of pre-treatment technology over the course of its lifetime through mid-2009.</p> <p>The pilot study demonstrated the viability of ocean water desalination for West Basin, advanced the understanding of key process components on local ocean water conditions, and resulted in data that was not previously available. (SPI, September 2010)</p>
2010 – 2014 OCEAN WATER DESALINATION DEMONSTRATION FACILITY	<p>Following the pilot program, West Basin set up the Ocean Water Desalination Demonstration Facility (Desal Demo Facility) to evaluate several critical components of the ocean water desalination process. The Desal Demo Facility, located at the SEA Lab Marine Educational Facility in Redondo Beach, withdrew 500,000 gallons of ocean water per day to perform various research and testing activities. One hundred thousand gallons per day of intake was treated to produce 50,000 gallons per day of water meeting drinking water standards. (Malcolm Pirnie, Arcadis, January 2013)</p> <p>The results from the Desal Demo Facility provided a foundation for development of a full-scale design, permitting, and operations approach.</p>
2013 OCEAN WATER DESALINATION PROGRAM MASTER PLAN	<p>West Basin completed the Ocean Water Desalination Program Master Plan in 2013 to define the overall desalination program scope and key project components (intake, pretreatment, reverse osmosis desalination system, post-treatment and product delivery) in the form of a technical study that can be used for the California Environmental Quality Act (CEQA) / EIR process and to support the basis of design of the full-scale facility (Malcolm Pirnie, Arcadis, January 2013). The Program Master Plan included:</p> <ul style="list-style-type: none"> Conceptual System Design and Program Requirements Power Supply Development Project Entitlements and Acquisition Environmental Review Plan Project Permitting Plan Facility Operations and Maintenance Plan Project Costs and Funding Plan
2014 WATER QUALITY INTEGRATION STUDY	<p>In 2014 West Basin partnered with Metropolitan to evaluate corrosion-related impacts of a new, desalinated ocean water source being introduced into a distribution system that has previously only been exposed to Metropolitan imported water and/or groundwater sources. The study used desalinated product water from West Basin’s Desal Demo Facility that was stabilized using calcite (calcium carbonate) in the pipe loops and bench-scale studies. The results indicate that desalinated ocean water can be successfully integrated into existing potable water distribution systems when stabilized and with management of initial chloramine decay. (Hazen and Sawyer, June 2014)</p>

YEAR & PROJECT	DESCRIPTION
2015 SUBSURFACE INTAKE STUDY	<p>West Basin completed a subsurface seawater intake study partially funded by the US Department of the Interior, Bureau of Reclamation to determine the feasibility of different intake options for a full-scale desalination facility in 2015. The subsurface seawater intake study developed a comprehensive, systematic procedure to evaluate the feasibility of seven subsurface intake technologies. The study determined that none of the seven subsurface seawater intake technologies are feasible for a design intake rate of 40 million gallons per day at the NRG Facility, and construction of subsurface seawater intakes outside of the NRG Facility would be subject to the same issues and challenges, making these technologies not feasible. (Geosyntec, November 2015)</p> <p>Supplemental studies since the initial 2015 study present further evidence that confirms West Basin’s conclusions that subsurface intakes are not feasible for this Desalination Project given the physical conditions within Santa Monica Bay and that horizontal directional drilling above the coarse-grained sediment layer specifically is not feasible for the proposed project. (West Basin Municipal Water District, October 2019)</p>
2016 BIOFOULING AND CORROSION STUDY	<p>In 2016, West Basin completed an Intake Biofouling and Corrosion Study on the different screen materials and intake piping chemicals. When subsurface intake systems are impractical for a specific project, open intake systems are considered, which must minimize impingement and entrainment of sea life. The Desal Demo Facility demonstrated the effectiveness of the screens for reducing impingement and entrainment, and this study evaluated screen material selection and biofouling control strategies.</p>
2018 DRAFT ENVIRONMENTAL IMPACT REPORT	<p>In March 2018, West Basin completed the Draft EIR for the Ocean Water Desalination Project in accordance with the CEQA and CEQA Guidance. The EIR contains in-depth studies of potential impacts due to the project, measures to reduce or avoid those impacts, and an analysis of alternatives to the project.</p>
2019 FINAL ENVIRONMENTAL IMPACT REPORT	<p>In October 2019, West Basin completed the Final EIR for the Ocean Water Desalination Project and addressed the comments received on the Draft EIR. West Basin and its board certified the EIR for the project in November 2019.</p>

The Desalination Project would produce approximately 20 million gallons per day of drinking water and could meet the needs of roughly 65,000 average households in a year. The primary location West Basin is considering for a desalination facility is in El Segundo, at the El Segundo Generating Station.

At present, the Desalination Project is in an evaluation phase. The West Basin Board certified the Desalination Project EIR in November 2019 and made the determination to adopt: (1) findings of fact, (2) a statement of overriding considerations, and (3) a mitigation monitoring and reporting program pursuant to CEQA and approved the project, subject to specific conditions identified.

The five conditions that must be addressed before the Desalination Project can progress include:

1. **Develop cost estimates.**
2. **Develop a financial evaluation plan.**
 - To evaluate funding mechanisms and rate impacts
3. **Complete a cost-benefit analysis.**
 - To include cost estimates and financial evaluation
4. **Develop design and project delivery documents.**
 - Conceptual design efforts have started; conceptual site plans will also help with cost estimates and permit applications.
 - Preliminary design, then project delivery documents would come next
5. **Secure permits.**
 - West Basin must secure 52 permits from 33 permitting agencies (as of April 6, 2021).
 - Additional studies may be required as part of the permitting process.
 - West Basin is assembling resources and has retained the services of a consultant to develop a permitting road map.
 - A library of past reports and studies is available.

The potential Desalination Project supply is not included in the projected supplies in this UWMP due to the project's current status and Metropolitan's supply reliability analysis (presented in Chapter 7). However, ocean desalination improves supply reliability and could provide up to 20% (21,500 acre-feet per year) of a new drought-proof supply to the region. Projected conditions in this UWMP may change in the future, and West Basin will continue to consider the role of ocean desalination in the West Basin supply portfolio as new information is available.

6.9 Supply Projections Summary

Table 6-8 presents the FY2020 supplies provided by West Basin and local groundwater supplies within West Basin's service area. Based on information presented in the above sections, West Basin's projected water supplies through 2045 is shown in **Table 6-9** and **Figure 6-10**. As shown, West Basin projects demands will increase, but the amount of recycled water and local groundwater supplies will also be expanded to provide a greater portion of the demand in the future. As such, imported water from Metropolitan is expected to drop from about 65% of the total service area supply in 2020 to 46% by 2040 and 2045.

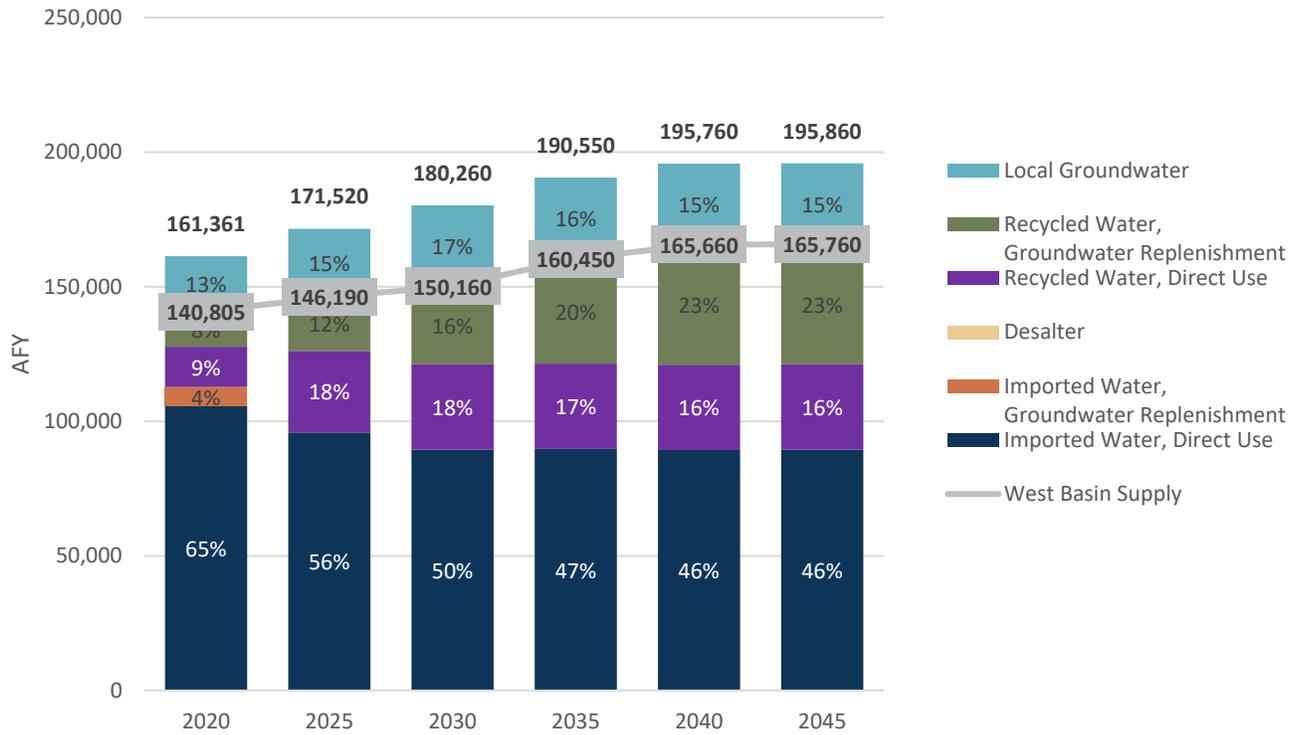
Table 6-8. FY2020 Actual Water Supplies

	WATER QUALITY	ACTUAL VOLUME (AFY)
Imported Water from Metropolitan	Drinking Water	105,686
Desalinated Groundwater from Marvin C. Brewer Desalter	Drinking Water	124
Recycled Water (Non-Potable) within West Basin Service Area	Recycled Water	14,961
RETAIL SUBTOTAL:		120,771
Replenishment - Recycled Water	Recycled Water	13,084
Replenishment - Imported Water	Drinking Water	6,950
REPLENISHMENT SUBTOTAL:		20,034
SUPPLY TOTAL:		140,805

Table 6-9. Projected Water Supplies (DWR 6-9W)

WATER SUPPLY	ADDITIONAL DETAIL ON WATER SUPPLY	PROJECTED WATER SUPPLY (AFY)				
		2025	2030	2035	2040	2045
Purchased or Imported Water	Direct Use	95,890	89,460	89,750	89,360	89,460
Recycled Water	Delivery in the West Basin Service Area only	30,300	31,700	31,700	31,700	31,700
Recycled Water	For Saltwater Barrier Replenishment	20,000	29,000	39,000	44,600	44,600
WEST BASIN SUPPLY SUBTOTAL:		146,190	150,160	160,450	165,660	165,760
Local Groundwater	Total volume extracted within West Basin's Service Area	25,330	30,100	30,100	30,100	30,100
WEST BASIN SERVICE AREA SUPPLY TOTAL:		171,520	180,260	190,550	195,760	195,860

Figure 6-10. West Basin Service Area, Total Water Supplies



6.10 Energy Intensity

Pursuant to California Water Code Section 10631.2(a), readily available information regarding energy intensity shall be reported in the 2020 UWMP. For West Basin, this includes the energy usage at West Basin’s ECLWRF and the Brewer Desalter facility. The energy intensity of West Basin’s primary water supply — imported water from Metropolitan — is reported in Metropolitan’s 2020 UWMP. Comprehensive energy use by the Brewer Desalter is based on the average monthly energy consumption of 200,000 kilowatt-hours (KWh) and average production of 72 AF, which translates to an energy intensity of roughly 2,800 kWh/AF. The ECLWRF energy intensity information from the past three fiscal years was compiled from electrical bills and water production data and is found in **Table 6-10**.

Table 6-10. ECLWRF (Recycled Water) Energy Intensity

ECLWRF	FY17	FY18	FY19	TOTAL
Electricity (kWh)	51,661,152	50,822,692	39,193,966	141,677,810
Treated Water Deliveries (AF)	21,549	22,094	18,320	61,963
Energy Intensity (kWh/AF)	2,397	2,300	2,139	2,286



Water Service Reliability and Drought Risk Assessment

This chapter describes the reliability of West Basin’s water supply. Water supply reliability reflects West Basin’s ability to meet the water needs of its customers with water supplies under varying conditions. The essential findings are that West Basin can reliably meet its service area demands with existing and future supply sources based on demand and supply projections.

Every urban water supplier is required to assess the reliability of its water service under normal, dry, and multiple-dry years, and must specifically assess the drought risk over the next five years. There are various factors that may impact reliability of supplies, such as legal, environmental, water quality, and climatic, which are discussed below. These factors can result in immediate (facility failures), near-term (SWP limitations), or long-term (climate change) impacts to reliability and must therefore be considered in future planning.

IN THIS SECTION

- Supply Challenges
- Water Service Reliability Assessment
- Drought Risk Assessment

The impacts of these factors on reliability increase under single-dry and multiple-dry year hydrologic patterns. West Basin’s Water for Tomorrow Program goal to expand and further diversify its supply portfolio is the most important step toward improving the reliability of supplies. West Basin has completed comprehensive water shortage contingency planning to provide reliability in the event of a water shortage and West Basin’s 2021 Water Shortage Contingency Plan is presented in **Appendix C**. Expected water supply reliability for normal, single-dry year, and multiple-dry years through 2045 is discussed in this chapter followed by a drought risk assessment for 2021 to 2025.

7.1 Supply Reliability Challenges

On April 29, 2019, Governor Newsom issued Executive Order N-10-19 that directed the California Natural Resources Agency, the California Environmental Protection Agency, and the California Department of Food and Agriculture to prepare a water resilience portfolio that meets the needs of California's communities, economy, and environment through the 21st century.

The agencies were directed to first inventory and assess:

- Existing demand for water on a statewide and regional basis and available water supply to address this demand
- Existing water quality of aquifers, rivers, lakes, and beaches
- Projected water needs in the coming decades for communities, economy, and environment
- Anticipated impacts of climate change to our water systems including growing drought and flood risks, and other challenges to water supply reliability
- Work underway to complete voluntary agreements for the Sacramento and San Joaquin river system regarding flows and habitat
- Current planning to modernize conveyance through the Bay-Delta with a new single tunnel project
- Expansion of the state's drinking water program to ensure all communities have access to clean, safe, and affordable drinking water
- Existing water policies, programs, and investments within state government

The California Water Resilience Portfolio outlines goals and actions to help address the state's water challenges through a broad and diversified approach.

The goals and actions are meant to be achieved region by region based on the unique challenges and opportunities in each area and are organized into four categories:

- Maintain and diversify water supplies — the state will continue to help regions reduce reliance on any one source of water supply and diversify water supplies to enable flexibility in the face of changing conditions.
- Protect and enhance natural ecosystems — the state will provide leadership in restoring the environmental health of our river systems through effective standard setting, continued investments, and more adaptive and holistic environmental management.
- Build connections — the state aims to improve infrastructure to store, move and share water more effectively, and to integrate water management through shared use of science, data, and technology.
- Be prepared — the state will provide guidance to support preparation, protective actions, and adaptive management of regions in the face of new threats and stresses due to climate change.

West Basin's water resources planning philosophy aligns with the California Water Resilience Portfolio and emphasizes conservation and expanding reliable, local supplies, such as recycled water, groundwater augmentation, groundwater desalination, and ocean water desalination. Reliability within the West Basin service area is a composite of the reliability of each supply source and its overall percent contribution to the supply portfolio. The following subsections further explain some of the factors identified by West Basin that may have an impact on reliability.

7.1.1 Imported Water

Metropolitan described several challenges in providing adequate, reliable, and high-quality supplemental water supplies along with potential management measures in the Metropolitan 2020 Urban Water Management Plan (UWMP) (Metropolitan Water District of Southern California, May 2021), including:

- The Colorado River Basin has historically experienced large swings in annual hydrologic conditions; however, these swings have largely been buffered through a large volume of storage.
- Dramatic swings in annual hydrologic conditions have impacted water supplies available from the SWP over the last decade. Metropolitan's efforts in building dry-year storage reserves, water banking, and transfers have helped manage the wide variability in SWP allocations.
- With approximately 30% of Metropolitan service area's water supply transported across the Bay-Delta, its declining ecosystem has led to a reduction in water supply deliveries, even during normal precipitation years. Operational constraints will likely continue until a long-term solution to the problems in the Bay-Delta is identified and implemented.
- Water quality challenges, such as algae toxins, polyfluoroalkyl substances (PFAS), and the identification of constituents of emerging concern, have a significant impact on the region's water supply conditions and underscore the importance of flexible and adaptive regional planning strategies.

Metropolitan described a variety of actions to address these water supply challenges to maintain water reliability within its service area. Metropolitan's proactive measures include:

- Continuing water conservation by expanding outreach, adding devices, and increasing incentives to residents
- Increasing local resources by providing incentives for on-site recycled water hook-up and the Local Resources Program
- Augmenting water supplies through water transfers and exchanges
- Improving return capability of storage programs to effectively take delivery of water when needed
- Maintaining dry year and emergency storage for the region to remain reliable during periods of low supply and emergencies
- Modifying Metropolitan's distribution system to enhance operational flexibility and efficient delivery of Colorado River, SWP, and in-region supplies within Metropolitan's service area
- Implementing shortage response actions under the Metropolitan Water Shortage Contingency Plan and elements of the Metropolitan Water Surplus and Drought Management Plan and Water Supply Allocation Plan to distribute the limited imported supplies and preserve storage reserves
- Responding to water quality concerns by protecting the quality of the source water, developing water management programs that maintain and enhance water quality, and changing water treatment protocols or blending

To maintain a reliable source of imported water supply for its member agencies, Metropolitan has and will continue to contend with these considerable challenges. After learning from the droughts of 1977–78 and 1989–92, Metropolitan, in conjunction with its member agencies, instituted a resources planning process that is based on diversification of the region's water supply portfolio and continued efficient water use. This integrated resource planning process has recognized that only through a mix of imported and member agency local supplies, along with aggressive implementation of water conservation, can the Metropolitan service area attain overall reliability of water supply.

This integrated planning effort has resulted in the following documents:

- 1996, 2004, 2010, 2015, and 2020 Integrated Resources Plans (IRP): Metropolitan's IRP process assesses potential future regional demand projections based upon anticipated population and economic growth as well as conservation potential. The IRP also includes regional supply strategies and implementation plans to better manage resources, meet anticipated demand, and increase overall system reliability. Metropolitan is currently preparing the 2020 IRP.
- 1999 Water Surplus and Drought Management (WSDM) Plan: The WSDM Plan provides the policy guidance to manage the region's water supplies by integrating the operating activities of supply surplus and shortage to achieve the reliability goals of the IRP.
- 2014 Water Supply Allocation Plan (WSAP): The WSAP includes the specific formula for calculating member agency supply allocations and the key implementation elements needed for administering the allocation. The need for the WSAP arose after the 2008 Bay-Delta biological opinions and rulings that limited SWP supplies to its contractors including Metropolitan. The WSAP formula seeks to balance the impacts of a shortage at the retail level while maintaining equity on the wholesale level for shortages of Metropolitan supplies up to 50%.

All these planning documents recognize that the reliability of the Metropolitan service area is dependent on improving the reliability of imported supplies from the Colorado River and State Water Project, as well as the successful implementation of future local supplies and conservation. Metropolitan is a supplemental supplier of water to Southern California and that regional reliability cannot be achieved without successfully addressing challenges to imported water reliability, developing reliable local supplies, and water use efficiency. This dependence on an integrated approach to water reliability and diversification of supplies has been the foundation of DWR's State Water Plan, through its last several updates and is the cornerstone of Governor Newsom's California Water Resilience Portfolio. Some of the most significant factors affecting reliability for imported water supplies include legal, environmental, water quality, and climatic changes. As noted above, successful implementation of Metropolitan's UWMP is dependent on the continued successful implementation by local agencies, such as West Basin, of local supply projects.

7.1.2 Groundwater

The reliability of groundwater supplies dictates how much supplemental supply West Basin will need to provide its retail agencies to meet their demands. Groundwater is a highly reliable supply because it is not immediately susceptible to changes in climate and surface flows. However, the two main factors that impact the reliability of groundwater supplies are legal and water quality.

Because the West Coast Basin is an adjudicated basin, pumping limits are established for rights holders. However, changes to basin operations could result from reallocation of pumping rights, opportunities to utilize the West Coast Basin for storage, remediation of contaminated plumes, and pumping capacity for further extraction. The 2015 amendments to the existing court-ordered judgment allows opportunities to utilize the West Coast Basin for storage and increased pumping when utilizing stored groundwater. These changes are largely out of control of West Basin.

The Los Angeles County Department of Public Works owns and maintains the seawater barrier system and determines how much barrier injection water is required to protect the aquifer from seawater intrusion. Water Replenishment District (WRD) determines how much additional water is needed to replenish the West Coast Basin to support pumping beyond the injection water needed for seawater intrusion protection. West Basin supplies WRD with both recycled and imported water to meet these demands.

In past years, when groundwater pumping exceeded recharge and replenishment, seawater intruded into the West Coast Basin. Once the intrusion barrier projects were brought on-line, further intrusion was stopped, however a large plume of saline water has remained trapped within the West Coast Basin. The groundwater supply projections have already considered the presence of the plume and therefore anticipate no change in supply reliability as a result of its existence. Overall, the current groundwater quality in the West Coast Basin remains very good, with only some areas facing poor water quality from natural or anthropogenic sources that WRD continues to monitor closely to determine increasing or decreasing trends (Water Replenishment District of Southern California, 2021).

7.1.3 Recycled Water

Hydrologically dependent supplies, such as imported water from Metropolitan, present on-going challenges in terms of availability and reliability. As a result, West Basin's goal continues to be to improve the reliability of its supply by expanding its supply portfolio with hydrologically independent supplies. Recycled water is a reliable water supply in the West Basin service area because there is a consistent source of water available for treatment. However, expansion of the recycled water program is dependent on factors outside of West Basin's control, including partnerships with its retail agencies, WRD, and other agencies or industries that would purchase the recycled water. More information on recycled water expansion and reliability is discussed in **Section 6.4**.

7.1.4 Ocean Water Desalination

Similar to recycled water, ocean water desalination is a hydrologically independent water supply and is considered reliable because it will always have a constant supply source for treatment. As described in **Chapter 6.8**, West Basin certified the Ocean Water Desalination Project Final Environmental Impact Report in 2019 following an ocean water desalination pilot study and a demonstration facility to further determine environmental safeguards, energy, and cost savings potential prior to considering a full-scale project. At present, the project is still being considered as a potential future supply for West Basin.

7.1.5 Climate Change

As described in the Metropolitan 2020 UWMP, climate change adds its own uncertainties to the challenges of water resources planning. Imported water supplies are most vulnerable to climate change, followed by local groundwater (Metropolitan Water District of Southern California, May 2021). Metropolitan's water supply planning has been fortunate to have almost 100 years of hydrological data regarding weather and water supply. This history of rainfall data has provided a sound foundation for forecasting both the frequency and the severity of future drought conditions, as well as the frequency and abundance of above-normal rainfall. But weather patterns can be expected to shift dramatically and unpredictably in a climate driven by increased concentrations of carbon dioxide in the atmosphere. These changes in weather significantly affect water supply planning, irrespective of any debate associated with the sources and cause of increasing concentrations of greenhouse gases. West Basin supports Metropolitan in its role as a major steward of the region's water supply resources and its commitment to performing ongoing due diligence with respect to climate change.

While uncertainties remain regarding the exact timing, magnitude, and regional impacts of these temperature and precipitation changes, researchers have identified several areas of concern for California water planners. These include:

- Reduction in Sierra Nevada snowpack
- Increased intensity and frequency of extreme weather events
- Prolonged drought periods

- Water quality issues associated with increase in wildfires
- Changes in runoff pattern and amount
- Rising sea levels resulting in:
 - Impacts to coastal groundwater basins due to seawater intrusion
 - Increased risk of damage from storms, high-tide events, and the erosion of levees
 - Potential pumping cutbacks on the SWP and Central Valley Project

Other important issues of concern due to global climate change include:

- Effects on local supplies such as groundwater
- Changes in demand levels and patterns
- Increased evapotranspiration from higher temperatures
- Impacts to human health from water-borne pathogens and water quality degradation
- Declines in ecosystem health and function
- Alterations to power generation and pumping regimes
- Increases in ocean algal blooms affecting seawater desalination supplies

Metropolitan’s activities related to climate change concerns include:

Resource Planning

Under the 2020 IRP, Metropolitan recognizes additional risks and uncertainties from a variety of sources:

- Water quality
- Climate change
- Regulatory and operational changes
- Project construction and implementation issues
- Infrastructure reliability and maintenance
- Demographic and growth uncertainty

Any of these risks and uncertainties, should they occur individually or collectively, may result in a negative impact to water supply reliability. While it is impossible to know how much risk and uncertainty to guard against, the region’s reliability will be more secure with a long-term plan that recognizes risk and provides resource development to offset that risk.

Knowledge Share and Research Support

Metropolitan is an active and founding member of the Water Utility Climate Alliance (WUCA). WUCA consists of 12 nationwide water providers collaborating on climate change adaptation.

Quantification of Current Research

Metropolitan continues to incorporate current climate change science into its planning efforts. A major component of the current IRP effort is to explicitly reflect uncertainty in Metropolitan’s future water management environment. This involves evaluating a wider range of water management strategies and seeking robust and adaptive plans that respond to uncertain conditions as they evolve over time, and that ultimately will perform adequately under a wide range of future conditions. The potential impacts and risks associated with climate change, as well as other major uncertainties and vulnerabilities, have been incorporated into the current IRP process.

Implementation of Programs and Policies

Metropolitan has made great efforts to implement greenhouse gas mitigation programs and policies for its facilities and operations. Similar to Metropolitan’s approach to managing water resources, effectively reducing greenhouse gas emissions requires a portfolio approach that looks at all sources and implements strategies to reduce emissions over time.

7.1.6 Water Quality

Metropolitan's 2020 UWMP considered water quality concerns for imported water supplies as well as local supplies, such as groundwater. Metropolitan anticipates no significant reductions in water supply availability from imported sources due to water quality concerns over the next five years (Metropolitan Water District of Southern California, May 2021).

Drinking water standards for contaminants, such as arsenic, chromium-6, 1,2,3-trichloropropane, and other emerging constituents, such as PFAS, may add costs to the use of groundwater storage and may affect the availability of local agency groundwater sources. This could affect demands on West Basin supplies if local agencies abandon impacted supplies in lieu of treatment options or use Metropolitan water to blend with their sources.

As the regional groundwater management agency for the West Coast Basin and Central Basin, WRD has several active programs to monitor, evaluate and mitigate water quality issues including:

Groundwater Quality Program

WRD continually evaluates current and proposed water quality compliance in agency production wells, monitoring wells, and recharge/injection waters of the West Coast Basin. If non-compliance is identified, WRD staff develops a recommended course of action and associated cost estimates to address the problem and to achieve compliance. WRD also evaluates the impacts of pending drinking water regulations and proposed legislation.

Regional Groundwater Monitoring Program

This program has a network of over 250 WRD and USGS-installed monitoring wells at nearly 50 locations throughout West Basin's service area. Monitoring well data is supplemented with information from production wells to capture the most accurate data available. WRD staff, comprised of certified hydrogeologists and registered engineers, provides the in-house capability to collect, analyze and report groundwater data. This information is stored in WRD's GIS database and supports a better understanding of the characteristics of the West Coast and Central Groundwater Basins.

WRD provides extensive information on groundwater quality in its Engineering and Survey Reports, as well as Regional Groundwater Monitoring Reports. Both reports have a section devoted solely to groundwater quality management and can be accessed through WRD's website, www.wrd.org (Water Replenishment District of Southern California, 2021).

Safe Drinking Water Program

This program promotes the cleanup of groundwater resources at specific well locations. By installing wellhead treatment facilities at existing production wells, WRD hopes to remove contaminants from the underground supply and deliver the extracted water for potable purposes. WRD works directly with well owners on the projects implemented through this program. It currently focuses on the removal of volatile organic compounds and offers financial assistance for the design of and equipment for the selected treatment facility.

7.2 Water Service Reliability Assessment

West Basin receives imported water from Metropolitan through connections to Metropolitan's regional distribution system. Although pipeline and connected capacity do not guarantee the availability of water, they do guarantee the ability to convey water when it is available to the Metropolitan distribution system. This section presents West Basin's expected water supply reliability for a normal year, single-dry year, and five consecutive dry years, including projections for 2025, 2030, 2035, 2040, and 2045.

West Basin's water sources and their constraints are described in detail in Chapter 6. The primary constraint on the available of water supplies has been in extreme drought conditions. As described above, Metropolitan has made substantial investments to increase imported water supply reliability during periods of extended drought. As a result, Metropolitan projects the ability to meet projected West Basin imported water demands under normal, single-dry year, and multiple-dry year conditions (Metropolitan Water District of Southern California, May 2021). The basis of the reliability assessment is presented in this section.

7.2.1 Year Type Characterization

West Basin's service area supplies considered in this assessment include:

- Imported water from West Basin to individual retail agencies via Metropolitan
- Groundwater produced from individual retail agencies
- Non-potable recycled water from West Basin to individual retail agencies

Metropolitan developed estimates of future demands and supplies from local sources and from Metropolitan sources based on 96 years (1922–2017) of historic hydrologic conditions. The 96-year period starting in 1922 was chosen because the CalSim II model used in the 2019 SWP Delivery Capability Report began in 1922. Supply and demand analyses for the single-dry year and five-year drought cases were based on conditions affecting the SWP as this supply availability fluctuates the most among Metropolitan's sources of supply. Using the same 96-year period of the SWP supply availability, 1977 is the single driest year, and 1988 through 1992 are the five consecutive driest years for SWP supplies to Metropolitan.

The Metropolitan 2020 UWMP presents Metropolitan's water reliability assessments through 2045 for three different year types and assumes the following hydrologic conditions:

Normal Year

The average of historic years 1922 to 2017 most closely represents the water supply conditions that Metropolitan considers available during a normal water year.

Single-Dry Year

The conditions for the year 1977 represent the lowest water supply available to Metropolitan.

Five-Consecutive Year Drought

The five consecutive years of 1988 to 1992 represent the driest five-consecutive year historical sequence for Metropolitan's water supply. This five-year sequence was used as the basis for Metropolitan's water service reliability and drought risk assessments.

Groundwater in the West Coast Basin and Central Basin is hydrology-independent as long as sufficient water is recharged to maintain adequate groundwater basin levels, which is WRD's mission. WRD has made many investments to continue to fulfill its mission through its Water Independence Now (WIN) program and, more recently, its WIN 4 ALL program. Thus, groundwater is assumed to have the same yield in normal year, single-dry year, and multiple-dry year drought conditions. It should also be noted

that projected annual groundwater use in West Basin’s service area is less than the annual West Coast Basin adjudicated pumping rights.

Similarly, recycled water is hydrology-independent and available recycled water supplies far exceed demands. Therefore, recycled water is assumed to have the same yield in normal year, single-dry year, and multiple-dry year drought conditions. **Table 7-1** presents West Basin’s basis for water year data and supply reliability considering all supply sources.

7.2.2 Water Service Reliability

West Basin demand projections depend on projections for total retail demand in the West Basin service area and less local supplies projections. The basis for the service area projected demands was described in Chapter 4 and summarized in **Figure 7-1** along with supplies. **Figure 7-2** adds West Basin replenishment demands to the West Basin retail demand presented in **Figure 7-1** for total West Basin supply and demand projections. **Figure 7-2** represents normal year supply and demand conditions as well as single-dry year conditions. As shown in the figure, West Basin groundwater replenishment demands are anticipated to be met fully by recycled water beyond 2020.

As shown in **Table 7-1**, West Basin projects sufficient supplies to meet projected demands in multiple-dry years as well due to West Basin’s diversified supply and conservation measures and Metropolitan’s supply reliability investments. Metropolitan projects the ability to meet projected West Basin imported water demands under normal, single-dry year, and multiple-dry year conditions (Metropolitan Water District of Southern California, March 2021). As a result, there are no anticipated shortages under the single-dry year or multiple-dry year scenarios and West Basin service area demands are assumed to be unconstrained in each reliability scenario.

Figure 7-1. West Basin Service Area, Normal Year and Single-Dry Year Retail Demand and Supply Projections

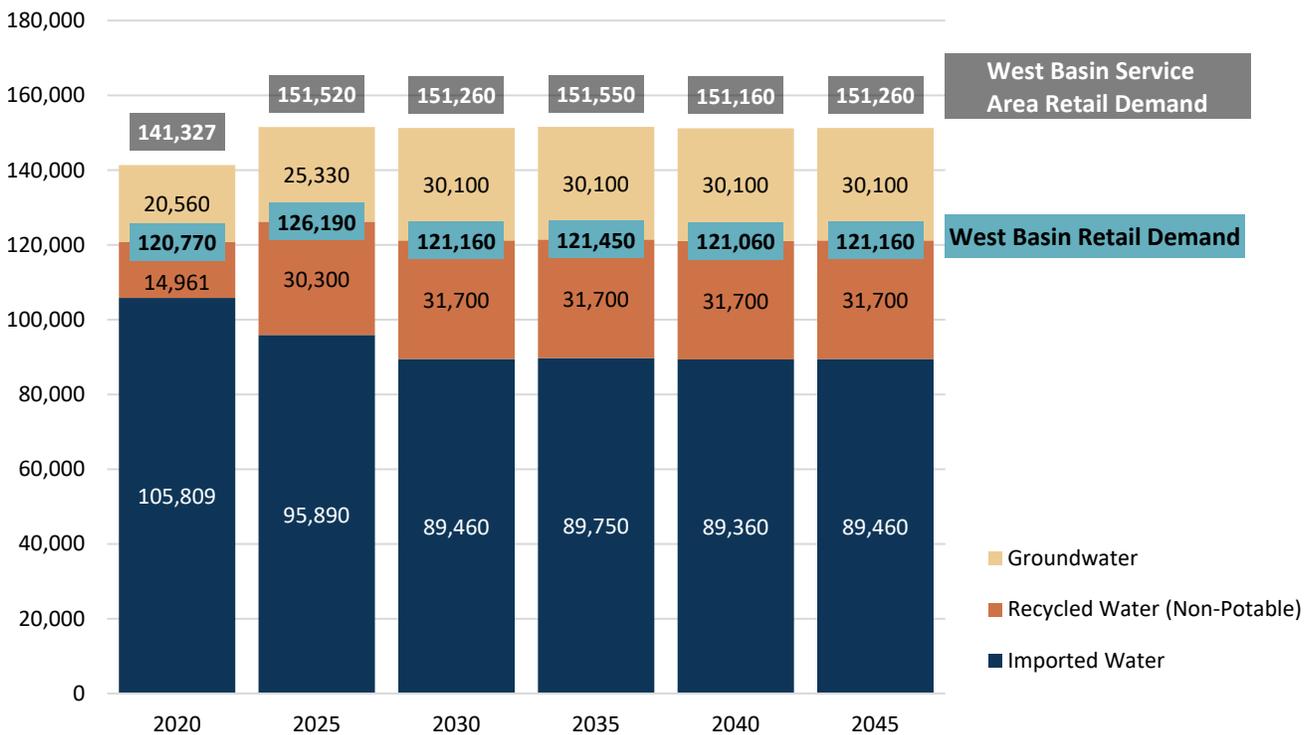


Figure 7-2. West Basin Total Demand and Supply Projections, Normal Year and Single-Dry Year

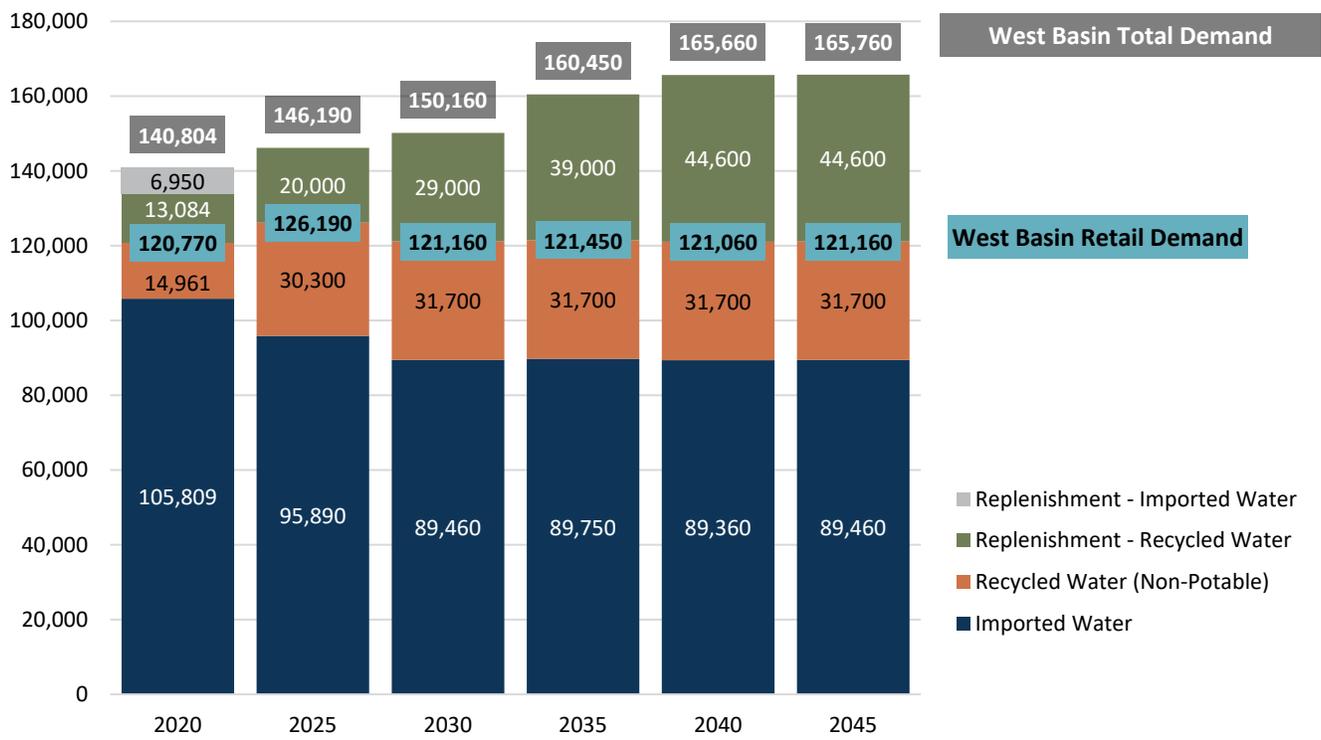


Table 7-1. Multiple-Dry Years Supply and Demand Comparison (DWR Table 7-4W)

		2025	2030	2035	2040	2045
First Year	Supply Totals	146,190	150,160	160,450	165,660	165,760
	Demand Totals	146,190	150,160	160,450	165,660	165,760
	DIFFERENCE:	0	0	0	0	0
Second Year	Supply Totals	146,190	150,160	160,450	165,660	165,760
	Demand Totals	146,190	150,160	160,450	165,660	165,760
	DIFFERENCE:	0	0	0	0	0
Third Year	Supply Totals	146,190	150,160	160,450	165,660	165,760
	Demand Totals	146,190	150,160	160,450	165,660	165,760
	DIFFERENCE:	0	0	0	0	0
Fourth Year	Supply Totals	146,190	150,160	160,450	165,660	165,760
	Demand Totals	146,190	150,160	160,450	165,660	165,760
	DIFFERENCE:	0	0	0	0	0
Fifth Year	Supply Totals	146,190	150,160	160,450	165,660	165,760
	Demand Totals	146,190	150,160	160,450	165,660	165,760
	DIFFERENCE:	0	0	0	0	0

7.3 2021–2025 Drought Risk Assessment

A new provision of the Water Code directs suppliers to prepare a drought risk assessment (DRA). The DRA considers a drought period lasting five consecutive years, starting from the year following the year in which the assessment is conducted. For this plan, the DRA considers five consecutive dry years from 2021 through 2025. West Basin may conduct an interim update or updates to this DRA within the five-year cycle of its UWMP update.

The DRA analysis allows West Basin to examine the management of its supplies during stressed hydrologic conditions and provides the supplier an opportunity to evaluate the functionality of its WSCP shortage response actions and understand the type and degree of response that is appropriate for managing water supplies. This evaluation can help the supplier to identify risks and take proactive steps before the next actual drought lasting at least five consecutive years.

7.3.1 Data, Methods, and Basis for Water Shortage Condition

For West Basin, the five consecutive years of 1988 to 1992 represent the driest five-consecutive year historic sequence for Metropolitan's water supply. West Basin's other supplies are reliable under all hydrological year types.

7.3.2 DRA Water Source Reliability

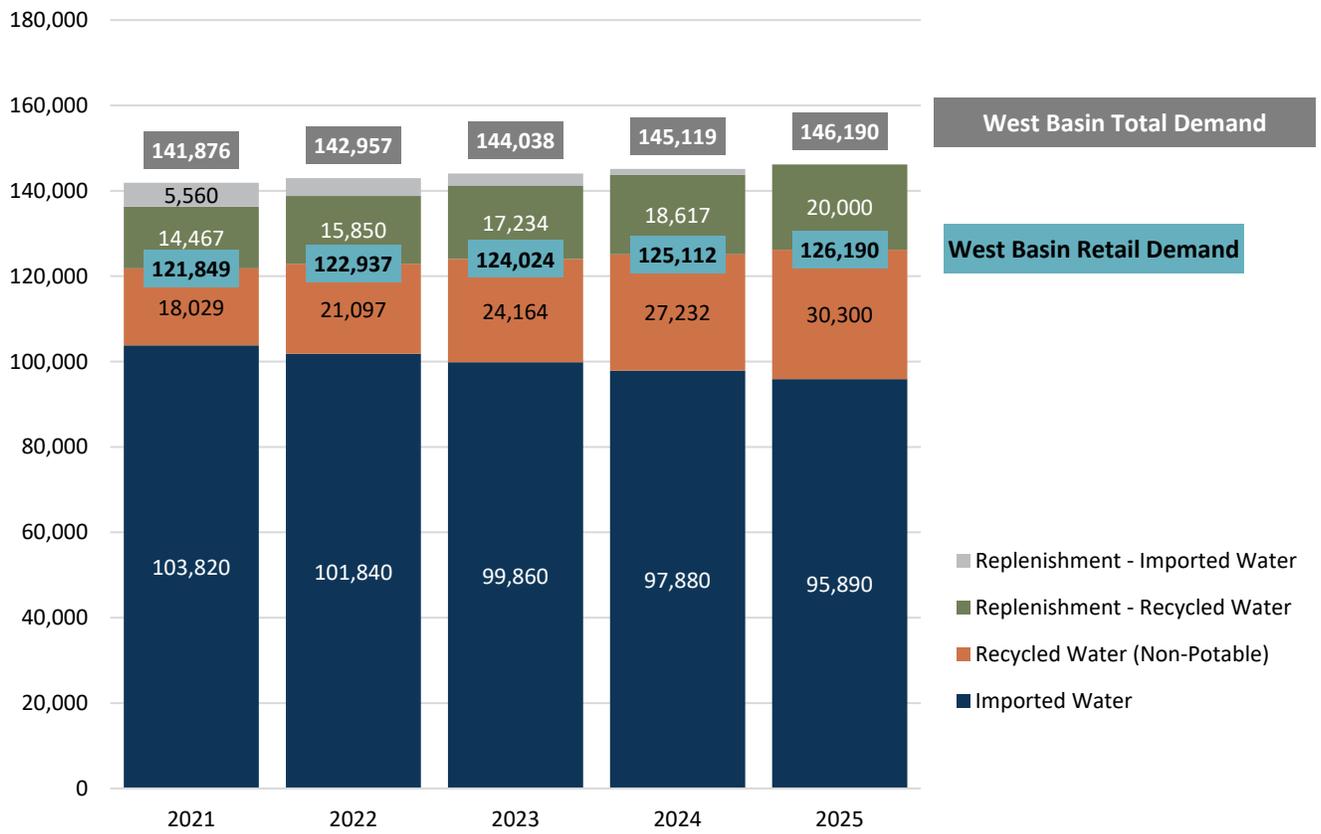
West Basin's projected water sources include imported water from Metropolitan and recycled water. West Basin's recycled water supply is considered reliable in all years. As described in Metropolitan's 2020 UWMP and DRA, Metropolitan's near-term assessment reveals that its supply capabilities are expected to exceed its projected water use for years 2022, 2024, and 2025. However, estimates of projected water supply and use reveals that there could be a possible shortfall of core supplies in 2021 and 2023. This shortfall is largely triggered by the assumed repeat of the historical 1988 and 1990 low supply conditions from the SWP to predict supply availability for 2021 and 2023. Actual supply conditions for 2021 and 2023 may prove different from historic supply conditions (Metropolitan Water District of Southern California, May 2021).

Metropolitan's DRA illustrates its potential shortage response actions if such shortfall were to happen. As detailed in Metropolitan's 2020 UWMP (Section 2.5 and Appendix 4), Metropolitan has in place a robust WSCP and comprehensive shortage response plan that includes demand reduction measures and supply augmentation actions. In Metropolitan's DRA, years 2021 and 2023 are estimated to have shortage levels within 10% of water use, corresponding to its WSCP Level 1 Shortage. Metropolitan has a range of response actions that it can take in a Level 1 Shortage, including taking from storage, executing flexible supplies, implementing voluntary demand reductions, and implementing its WSAP. Metropolitan's DRA anticipates taking from its storage during these shortfall years to augment its supply and meet its demand. As of January 1, 2021, Metropolitan has 3.2 million acre-feet in storage that may be used for dry-year needs within multiple reservoirs to mitigate any potential shortage in 2021 and 2023. In addition, Metropolitan may also take from its water banking programs in the Central Valley, draw from in-region conjunctive use programs, pursue additional supplies through SWP transfers, or exercise any combination of supply augmentation actions.

With a potential surplus estimated for years 2022, 2024, and 2025, no water service reliability concern is anticipated, and no shortfall mitigation measures are expected to be exercised. Metropolitan will periodically revisit its representation of both individual supply sources and of the gross water use estimated for each year and will revise its DRA if needed.

As shown in **Figure 7-3**, West Basin's supplies are anticipated to be reliable, and no shortfalls are expected from 2021 to 2025, when assuming the next five years are similar to the corresponding driest five years scenario.

Figure 7-3. West Basin 2021–2025 Drought Risk Assessment





URBAN WATER MANAGEMENT PLAN

Water Shortage Contingency Plan

This chapter provides a summary of West Basin’s Water Shortage Contingency Plan, including shortage stages and shortage response actions. The stand-alone Water Shortage Contingency Plan is included in Appendix C.

The California Water Code Section 10632 requires that every urban water supplier that serves more than 3,000 acre-feet per year or has more than 3,000 connections to prepare and adopt a standalone Water Shortage Contingency Plan (WSCP) as part of its Urban Water Management Plan (UWMP). The WSCP is required to provide plans for a range of water shortage situations, including supply shortages of greater than 50%. The WSCP must be updated based on new requirements every five years and will be adopted as a current update for submission to the California Department of Water Resources by July 1, 2021.

IN THIS SECTION

- WSCP Overview
- WSCP Outline
- Water Shortage Stages

The WSCP is a strategic plan that West Basin Municipal Water District uses to prepare for and respond to water shortages. A water shortage happens when the available water supply is insufficient to meet normally expected customer water use at a given point in time. Shortages may occur due to several reasons, such as water supply quality changes, climate change, drought, and catastrophic events (e.g., earthquakes). The West Basin WSCP provides an updated water supply availability assessment and structured steps designed to respond to actual conditions. This level of detailed planning and preparation will help maintain reliable supplies and reduce the impacts of future supply interruptions.

8.1 Water Shortage Contingency Plan Overview

As a wholesaler of Metropolitan’s treated imported water supply, West Basin has aligned its water shortage policies with Metropolitan to respond to events including catastrophic interruption and a reduction in water supply that may exceed 50%. During a water shortage that triggers Metropolitan’s Water Supply Allocation Plan, West Basin will be responsible for determining how imported water will be allocated to each of its own retail agencies, which will then inform the implementation of shortage actions in accordance with local ordinances.

The West Basin WSCP includes the steps to assess whether a water shortage is occurring or is expected to occur and what level of demand reduction actions is necessary to trigger the most appropriate response to the water shortage conditions. It serves as the operating manual that West Basin will use to prevent catastrophic service disruptions through proactive, rather than reactive, mitigation of water shortages. This WSCP will allow the West Basin Board, staff, and retail agencies to easily identify and efficiently implement predetermined processes and procedures to address a water shortage to the level appropriate for the anticipated water shortfall.

The WSCP also describes West Basin’s procedures for conducting an Annual Water Supply and Demand Assessment (Annual Assessment). The Annual Assessment is required by California Water Code Section 10632.1 and is to be submitted to the California Department of Water Resources (DWR) on or before July 1 of each year, or within 14 days of receiving final allocations from the State Water Project, whichever is later.

West Basin’s 2021 WSCP is included as **Appendix C** and will be submitted as a stand-alone planning document to DWR by July 1, 2021. This WSCP is created separately from West Basin’s 2020 UWMP and can be amended, as needed, without amending the UWMP. Furthermore, the water code does not prohibit an urban water supplier from taking actions not specified in its WSCP, if needed, without having to formally amend its UWMP or WSCP.

A WSCP has a number of prescriptive elements, including: an analysis of water supply reliability; the drought shortage actions for each of the six standard water shortage levels, corresponding to water shortage percentages that range from 10% to greater than 50%; an estimate of potential to close the supply gap for each measure; protocols and procedures to communicate identified actions for any current or predicted water shortage conditions; procedures for an annual water supply and demand assessment; identifying the financial impacts of implementing shortage response actions; and reevaluation and improvement procedures for evaluating the WSCP.

Figure 8-1 illustrates the interdependent relationship between the Metropolitan, West Basin, and retail agencies’ procedural documents related to planning for and responding to water shortages.

Figure 8-1. Wholesalers and Retailer Plans Inter-relationship



8.2 Water Shortage Contingency Plan Outline

West Basin's WSCP is organized into three main sections, with Section 3 aligned with the California Water Code Section 10632 requirements.

Section 1: Introduction and WSCP Overview

Section 2: Background

Section 3: Water Shortage Contingency Plan

Section 3 includes 12 subsections:

1. **Water Supply Reliability Analysis:** Summarizes West Basin's water supply analysis and reliability and identifies any key issues that may trigger a shortage condition.
2. **Annual Water Supply and Demand Assessment Procedures:** Describes the key data inputs, evaluation criteria, and methodology for assessing the system's reliability for the coming year and the steps to formally declare any water shortage levels and response actions.
3. **Standard Shortage Stages:** Establishes water shortage levels to clearly identify and prepare for shortages. (Further described in **Section 8.3**).
4. **Shortage Response Actions:** Describes the response actions that may be implemented or considered for each stage to reduce gaps between supply and demand while minimizing social and economic impacts to the community.
5. **Communication Protocols:** Describes communication protocols under each stage to ensure customers, the public, and government agencies are informed of shortage conditions and requirements.
6. **Compliance and Enforcement:** This section is not applicable to wholesale water agencies such as West Basin.
7. **Legal Authorities:** Lists the legal ordinance(s) that grants West Basin the authority to declare a water shortage and implement and enforce response actions.
8. **Financial Consequences of WSCP Implementation:** Describes the anticipated financial impact of implementing water shortage stages and identifies mitigation strategies to offset financial burdens.
9. **Monitoring and Reporting:** This section is not applicable to wholesale water agencies such as West Basin.
10. **WSCP Refinement Procedures:** Describes the factors that may trigger updates to the WSCP and outlines how to complete an update.
11. **Special Water Features Distinctions:** This section is not applicable to wholesale water agencies such as West Basin.
12. **Plan Adoption, Submittal, and Availability:** Describes the process for the WSCP adoption, submittal, and availability after each revision.

Section 6, Section 9, and Section 11 are not required to be completed by wholesale water suppliers, but West Basin will provide ongoing support to its retail agencies in complying with these sections in their own individual WSCP documents. The WSCP is a stand-alone document that can be modified as needed and is included as **Appendix C**.

8.3 Shortage Levels

The West Basin WSCP is based on adequate details of demand reduction and supply augmentation measures that are structured to match varying degrees of shortage. This will ensure that retail water suppliers and other relevant stakeholders understand what to expect during a water shortage situation. West Basin has adopted water shortage levels consistent with the requirements identified in California Water Code Section 10632 (a)(3)(A) (**Table 8-1**).

Table 8-1. Water Shortage Levels

SHORTAGE LEVEL	PERCENT SHORTAGE RANGE	SHORTAGE RESPONSE ACTIONS (NARRATIVE DESCRIPTION)
0	0% (Normal)	During non-shortage conditions, West Basin develops, implements, and provides cost-effective water efficiency and conservation programs to local communities in its service area to help save water and increase local water supply reliability. In addition, West Basin educates and engages the community about important water issues through its outreach and education programs. Together, these programs highlight the importance of adopting a “Making Water Conservation a California Way of Life” mindset as a means of supporting ongoing water supply reliability throughout the region.
1	Up to 10%	At this shortage level, West Basin will implement one or more of the following shortage response actions: <ul style="list-style-type: none"> - Call for voluntary retail agency water use reductions - Call for voluntary retail agency use of non-imported potable sources - Implement additional conservation/water efficiency programs - Deploy extraordinary public outreach and communications measures - Implement mandatory retail agency water use reductions (in West Basin’s Drought Rationing Plan)
2	11% to 20%	At this shortage level, West Basin will implement and expand one or more of the shortage response actions listed for Stage 1 to achieve demand reduction target of 20%.
3	21% to 30%	At this shortage level, West Basin will implement and expand one or more of the shortage response actions listed for Stage 1 to achieve demand reduction target of 30%.
4	31% to 40%	At this shortage level, West Basin will implement and expand one or more of the shortage response actions listed for Stage 1 to achieve demand reduction target of 40%.
5	41% to 50%	At this shortage level, West Basin will implement and expand one or more of the shortage response actions listed for Stage 1 to achieve demand reduction target of 50%.
6	>50%	At this shortage level, West Basin will implement and expand one or more of the shortage response actions listed for Stage 1 to achieve demand reduction target of greater than 50%

8.4 Next Steps

A complete draft of West Basin’s 2021 WSCP was made available to retail agencies and the public prior to West Basin’s June 10, 2021 public hearing. Final adoption of the WSCP occurred at the West Basin Board of Directors meeting on June 28, 2021.



Demand Management Measures

This chapter discusses West Basin’s demand management measures, including its public outreach and education programs, water conservation programs, asset management programs, and ongoing wholesaler supplier coordination efforts.

West Basin employs a suite of water efficiency programs, in excess of State-mandated water use restrictions, in order to promote California’s Conservation as a Way of Life ethic and to reduce water supply demand in its service area. The following sections provide a description of West Basin’s past and present Demand Management Measures, including the nature and extent of each.

IN THIS SECTION

- Public Education and Outreach
- Water Conservation Programs
- Wholesaler Supplier Coordination

9.1 Metering

As a wholesaler, West Basin does not directly meter customers' potable water use. However, every water agency within West Basin's service area bills its customers according to actual meter consumption. West Basin also encourages the installation of dedicated landscape meters, which will enable agencies to recommend the appropriate irrigation schedules through future landscape programs.

In addition, according to Metropolitan's 2020 Draft Urban Water Management Plan (UWMP), it maintains over 400 service connections that meter water deliveries to all its member agencies, including West Basin. These meters are checked on a periodic basis to ensure accuracy and reliability.

9.2 Public Education and Outreach

9.2.1 West Basin Public Information and Education Programs

West Basin offers a variety of public information and education programs to inform the service area about its conservation, water efficiency, recycled water, desalination, and other water supply programs. All West Basin's educational programs are free to the public, and West Basin prides itself on maintaining an active presence in each of the communities it serves. Most of the programs and initiatives summarized below have been in place since 2015 and continue to be assessed and refined annually to achieve maximum effectiveness and reach.

9.2.2 Water for Tomorrow Campaign

In 2019, West Basin rebranded its Water Reliability 2020 program and launched Water for Tomorrow, which explains West Basin's approach to securing water reliability for the region.

Water for Tomorrow has the following objectives:

- Protect West Basin's existing water supply
- Diversify and augment its water supply portfolio
- Innovate to prepare for the future



For West Basin to achieve its Water for Tomorrow goals, it will continue to build upon its water education programs. Many of the programs that support the objectives of Water for Tomorrow are described in more detail below.

9.2.3 West Basin Newsletter

Since 2010, West Basin has published a quarterly electronic newsletter that is distributed to approximately 4,000 community leaders and residents in its service area. The newsletter allows West Basin to communicate directly with an engaged group of citizens on a variety of topics, including conservation and water efficiency programs, recycled water projects, desalination, outreach and education programs, and more. West Basin consistently enjoys a high engagement rate with the recipients of its electronic newsletter. For fiscal years 2015–2020, West Basin's newsletter has achieved approximately 20,000 unique views.

9.2.4 Media Relations

West Basin establishes and maintains professional relationships with local news media through press releases, social media, community events, one-on-one tours, and briefings and small group discussions to inform them about West Basin’s ongoing activities to provide safe and reliable water supplies to local communities. Conservation is one of the most frequently discussed topics on which West Basin engages the media. During periods of statewide drought and water shortages, West Basin works with media to promote conservation as a way of life and encourage the implementation of water-efficient technologies at home and work. **Table 9-1** summarizes the number of media news releases West Basin issued during fiscal years 2015–2020.

Table 9-1. Media News Releases 2015–2020

FISCAL YEAR	NUMBER OF PRESS RELEASES
2015	13
2016	16
2017	12
2018	19
2019	19
2020	18

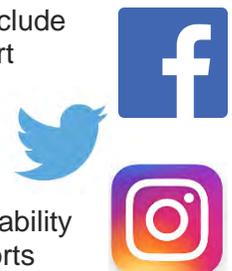
9.2.5 Social Media and Website

West Basin maintains an active and robust website and social media presence. West Basin’s recent digital outreach efforts are based on a comprehensive social media strategic plan that was developed in 2019 and which aims to develop and implement engaging tools and platforms that provide critical information to West Basin’s customers and members of the public. Total annual users of the West Basin website have remained consistent over the last few years, shown in **Table 9-2**.

Table 9-2. West Basin Website Users 2018-2020

FISCAL YEAR	NUMBER OF WEBSITE USERS
2018	33,552
2019	34,349
2020	31,796

Social media tools that West Basin utilizes to communicate with other stakeholders include Facebook, Twitter, Instagram, LinkedIn, and YouTube. Social media is used to support integrated media and marketing outreach efforts, and to act as a standalone outreach tool to promote and engage the West Basin’s growing number of social media savvy followers. West Basin publishes hundreds of regular and boosted posts throughout the year, with many of the posts related to conservation, water efficiency, water supply, and various other topics aimed at improving water supply reliability efforts throughout the service area. Currently, almost all of West Basin’s outreach efforts include some type of social media component.



The West Basin website (www.westbasin.org) serves as a hub for all West Basin's programs, projects, and other pertinent information. There is a dedicated section of the website that provides information on all of West Basin's water supply programs, including conservation and water efficiency. Visitors to the website can access valuable information that can help them save water at their home and/or business.

The West Basin website and its social media accounts work hand in hand to communicate and provide vital information to thousands of people each year.

9.2.6 Speakers Bureau

For nearly a decade, West Basin has provided informational presentations to local government, community, business, and industry groups on a variety of West Basin and water-related topics. The presentations provide information on current and future water supply challenges and explain what West Basin is doing to meet those demands through its Water for Tomorrow Program. The goal of the Speakers Bureau program is to educate and empower water-minded community advocates who can speak to and garner support for West Basin's various water reliability initiatives and projects. In 2016, West Basin conducted 22 Speakers Bureau events. In 2018, nearly 50 Speakers Bureau events were hosted, with many of them focused on West Basin's ocean water desalination research program. To date, West Basin has been able to reach thousands of community members through this program.

9.2.7 Imported Water Supply Tours

In partnership with the Metropolitan Water District of Southern California (Metropolitan), West Basin provides inspection tours of the Colorado River Aqueduct and the State Water Project to legislators, local elected officials, retail water agency staff, and the general public at various times throughout the year. The purpose of the tours is to give local decision makers a better understanding and appreciation of the water supply issues impacting the region.



Between 2015 and 2020, West Basin hosted up to six tours per year of the following locations:

- Colorado River Aqueduct Inspection Trip
- State Water Project Inspection Trip
- Diamond Valley Lake Day Trip



9.2.8 Water Harvest Festival

In October 1999, West Basin hosted its first annual Water Harvest Festival in El Segundo. West Basin invites the community to learn about the value of water in a fun, family friendly atmosphere that includes informational booths, shows, games, tours, and contests. The event features local agencies, community groups, and water conservation vendors that provide the public with information about water-saving devices, rebates, and programs. West Basin provides free tours of its water recycling facility and demonstrates how wastewater is purified into usable recycled water. This free event attracts up to 1,700 visitors each year. The event was not held in 2020 due to COVID-19 health precautions but will return once in-person events are allowed to resume.

9.2.9 Community Events

Public events provide West Basin with unique opportunities to interact with members of the public on the availability and importance of its conservation programs. West Basin employees frequently staff booths at festivals, conferences, and other events. At these events, staff provides informational flyers, fact sheets, brochures, and other educational collateral. Staff is also able to answer questions directly from community members, which increases public awareness about West Basin's many different programs and the overall status of statewide and local water supplies. An example of West Basin's pre-COVID19 community outreach activities can be seen in **Figure 9-1** below for January through June 2019.

Figure 9-1. West Basin January through June 2019 Community Outreach Activities Snapshot

January	February	March	April	May	May/June
Inglewood Annual MLK Day Celebration	Manhattan Beach Chamber 2019 State of the City	Friends of the Sandy Segal Youth Health Center Gala	Wiseburn Education Foundation Rock Round the Block	Cinco de Mayo Scholarship & Festival Committee	El Segundo Foundation Ed! Gala
		Neptunian Woman’s Club 2019 Fashion Show	Lomita Sister City Association Annual Spaghetti Dinner	El Segundo Rotary Club 4 th Annual Rubber Ducky Raffle	LA Council of Black Professional Engineers Awards & Scholarships Banquet
		Pali Thirst Project for Water	City of Carson Earth Day Celebration	H.E.LP Journey to Grand Adventures Gala Fundraiser	Roundhouse Aquarium Fun Run for the Oceans
			Inglewood Earth Day Music Festival	El Camino College Foundation Career and Majors Fair	Grayson’s Awareness Outreach 18 th Annual Salute Awards Ceremony
			EmpowHer Institute Girls to Greatness Teen Conference	Mychal’s Learning Plan’s Annual Luncheon	Topanga Community Center 45 th Annual Topanga Days
			El Segundo PTA Run for Education	Ridgecrest Intermediate School Booster Club 5K Run	Hermosa Beach Chamber of Commerce Fiesta Hermosa
			Dymally International Jazz & Arts Festival	Ladera Senior Association Spa Day	SBWIB Fit for Gold Closing Ceremony
			Freedom4U Releasing Youth	Lomita Kiwanis 15 th Annual Golden Apple Awards Dinner	South Bay Children’s Health Center Champions for Children Trail Run

9.2.10 Water Recycling Tours

Prior to the COVID-19 pandemic, West Basin offered monthly public tours of its water recycling processes at the Edward C. Little Water Recycling Facility (ECLWRF). Visitors learn about the water purification process at the only facility in the world that produces five customer-tailored recycled waters and watch the process of wastewater being purified to drinking water quality in 20 minutes. West Basin plans to resume in-person tours in the future once public health regulations allow for it to do so. **Table 9-3** lists attendance at recycled water tours between 2015 and 2017.

Table 9-3. Recycled Water Tours 2015–2017

FISCAL YEAR	NUMBER OF TOUR ATTENDEES
2015	420
2016	378
2017	169

In 2018 and 2019, public tours at West Basin’s water recycling facility were postponed due to construction and renovation activities. The public tour program resumed in 2020 but was converted to a virtual/online format in order to accommodate COVID-19 protocols.

9.2.11 School Education Programs

For more than a decade, West Basin has provided free water education programs to students in elementary school through high school, in its service area. Program topics include the origin of our water supply, water conservation, and environmental issues. All education programs are grade specific and incorporate California’s Common Core Standards. The goal of these award-winning programs is to inspire students to become water ambassadors in our local communities. West Basin also partners with Metropolitan to provide additional water conservation educational opportunities for youth throughout the region.

All West Basin and Metropolitan education programs are offered for free to public and private schools in the service area. Descriptions of each program can be found in the following section.

Solar Cup

Solar Cup is an annual solar-powered boat building and racing competition held for high school students in Southern California. The goal of the seven-month program is to encourage students to learn about science, mathematics, water quality issues, conservation, and alternative energy and fuel sources. This year, due to COVID-19, Metropolitan, the lead sponsor of the program, adapted the engineering challenge event into a virtual online team competition.



West Basin sponsored teams include:

- Lawndale High School, Lawndale
- Mira Costa High School, Manhattan Beach
- Lennox Math, Science and Technology Academy, Lennox
- Palos Verdes Peninsula High School, Rolling Hills Estates

Water is Life Student Art Contest

This program encourages 3rd–12th grade students to learn about conservation, the environment, and water resources by designing a water conservation slogan illustrated with original artwork. Fifteen finalists are selected each year, with the winning students having the opportunity to compete in Metropolitan’s region-wide selection process.

In 2020, nearly 500 students competed in West Basin’s program. Since 2015, an average of 500 students have participated in the contest annually. In 2021, the program was adapted to allow for electronic and paper submissions to encourage continued student participation during the Covid-19 pandemic. Live online classroom art lessons are available to inspire and assist students with their art submissions. Local cities and media have provided ongoing support for this program, with news stories and television spots being utilized in recent years to promote the program and feature student winners.





Water Treatment Facility School Tours

West Basin offers a free field trip experience for 3rd–12th grade students at its Water Education Center in El Segundo. Through interactive games, a lively presentation, and walking tour through the plant, students explore the importance of our water supply and the fascinating water treatment process. The students are then transported to a local community aquarium to discover how local marine life is protected by West Basin's environmentally sustainable water treatment processes. The facility welcomed an average of 4,500 students each year through its doors before COVID-19 put a pause on in-person gatherings.

In addition, when West Basin operated an ocean water desalination pilot project education center, thousands of members of the public, including students from local schools, visited the center. **Table 9-4** shows the number of students that visited the desalination water education center between 2015 and 2019.

Table 9-4. Student Visits to the Desalination Water Education Center from 2015-2019

FISCAL YEAR	NUMBER OF STUDENTS SERVED
2015	1,602
2016	998
2017	1,285
2018	2,629
2019	1,127

Water Educators Newsletter

Since 2007, West Basin has kept in touch with educators and administrators regarding its various education programs through its quarterly newsletter *Waterworks*, a publication that highlights the latest information about West Basin's current and upcoming education programs. It is distributed by mail and online to an extensive database of teachers, school administrators, school district superintendents, community organizations, and homeschool networks.

Water Star Program

West Basin's Water Star Program encourages students to save 20 gallons a day, reducing the region's dependence on imported water and reducing runoff to the ocean. Students receive a water star conservation kit complete with fix-it tickets, a five-minute shower timer, and water saving tips. Between 2015 and 2018, 15,841 students received water star conservation kits. More than 10,000 additional students received Water Star kits during the 2013–2015 school years.

Surfrider Foundation Teach and Test Program

The Surfrider Foundation South Bay Chapter's Teach and Test Program was founded in 2006 and is an exciting project pairing high school students with professional laboratory staff and community volunteers to monitor the water quality of our South Bay beaches. West Basin sponsors this ongoing effort to improve the water quality of Santa Monica Bay and introduce youth to water quality research and careers. Teams volunteer to collect water samples from 18 local beaches to then analyze and publish their results in an ongoing database. Students have participated from many schools within West Basin's service area. For the years 2015–2018 approximately 100 students participated in the program each year.

Career Training Programs

West Basin partners with Suez Water to participate in the Inglewood/Airport Chamber of Commerce's Annual Youth Business and Industry Job Shadow Day. West Basin serves as a business host and conducts a five-hour water career program and facility tour that accommodates ten students. Students are introduced to West Basin's mission, water sustainability projects, agency organization and variety of job positions. Students then take a tour of the ECLWRF to see the results of the public/private partnership with Suez Water. Students are exposed to a wide range of careers in chemistry, biology, engineering, human resources, finance, water resource planning, public affairs, and operations and maintenance. West Basin also hosts high school summer internships in partnership with the South Bay Workforce Investment Board.

Water Industry Career Presentations

West Basin partners with different schools, agencies, and organizations throughout the school year to introduce students to careers in the water field. Programs can range from classroom presentations to staffing booths at campus STEAM Career Fairs to conducting live online professional guest panel question and answer sessions. During all programs, students are exposed to a wide range of careers in chemistry, biology, engineering, human resources, finance, water resource planning, public affairs, and operations and maintenance.

In 2020, West Basin partnered with the Water Replenishment District to offer a virtual career panel and series of informational career-focused videos for students. More than 100 students from local schools and community colleges attended the workshop.



West Basin Panelists

Uzi Daniel, Operations Manager



Jason Kung, Operations Analyst



9.2.12 Virtual Community and School Education Programs

In 2020, in response to the COVID-19 pandemic, West Basin adapted many of its public and school education programs by creating virtual opportunities that could continue serving the public despite stay-at-home orders that prevented in-person gatherings. These virtual programs have been a great success for West Basin, reaching members of the community that may have been unable to attend tours or education events in the past. Because of the value seen in these new class offerings, West Basin is planning to integrate virtual education as an ongoing piece of its overall outreach strategy.

West Basin offers a collection of free online classes and family friendly resources available to the community. All virtual webinars and facility tours are live-hosted by West Basin staff or in partnership with other subject-matter experts. Participants are given the opportunity to ask questions during and after each presentation.

Virtual opportunities that are currently offered include:

Know Your H2O Webinar Series

Participants have the opportunity to learn about one of four uniquely offered topics:

- Where Your Water Comes From
- Water Supply Diversity
- Conservation and Water Efficiency Topics
- Water Recycling Facility Virtual Tour

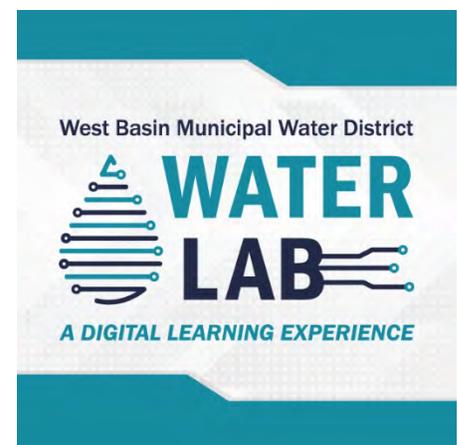
Water Use Efficiency and Conservation Workshops and Classes

In partnership with Metropolitan, a series of online landscape classes are held to educate West Basin residents on a variety of topics. West Basin also organizes its own conservation-focused offerings to educate the community and offer valuable resources.

- **California Friendly and Native Landscape Training**
Learn what makes a landscape watershed wise and how to start planning a home garden project
- **Turf Removal and Garden Transformation Workshop**
Learn how to remove grass and select climate-appropriate plants to maintain a beautiful garden year-round
- **Garden Design Workshops**
An in-depth look at the critical steps needed to successfully design a watershed wise landscape

Fire-Resistant Landscape Workshops

A West Basin course that reviews plants and landscaping techniques that can help protect residential properties from fire. In 2020, West Basin hosted a firescaping workshop in the Malibu and Topanga area. Nearly 100 residents attended the workshop, asking more than 50 questions during the presentation. In April 2021, an additional workshop was held for residents in the Palos Verdes Peninsula, with nearly 200 people registering for the class. West Basin plans to offer additional online firescaping workshops in future years for different communities in its service area.



Virtual Field Trips and Online Student Resources

West Basin offers free, online water education programs that encourage 3rd–12th grade students to learn about the region’s precious water sources and how to be water stewards in their communities.

- **Virtual Field Trips**

Live-hosted and intended as an alternative to in-person field trips. These events also support teachers conducting synchronous distance learning with their classrooms. For the combined 2019–2020 and 2020–2021 school years, approximately 70 tours have been conducted for more 1,700 students.

- **Drop in the Bucket Program**

This is a classroom presentation program, offered in partnership with the Wildwoods Foundation, teaching students about Southern California’s water sources and practical ways to conserve water.

- **Water is Life Student Art Contest**

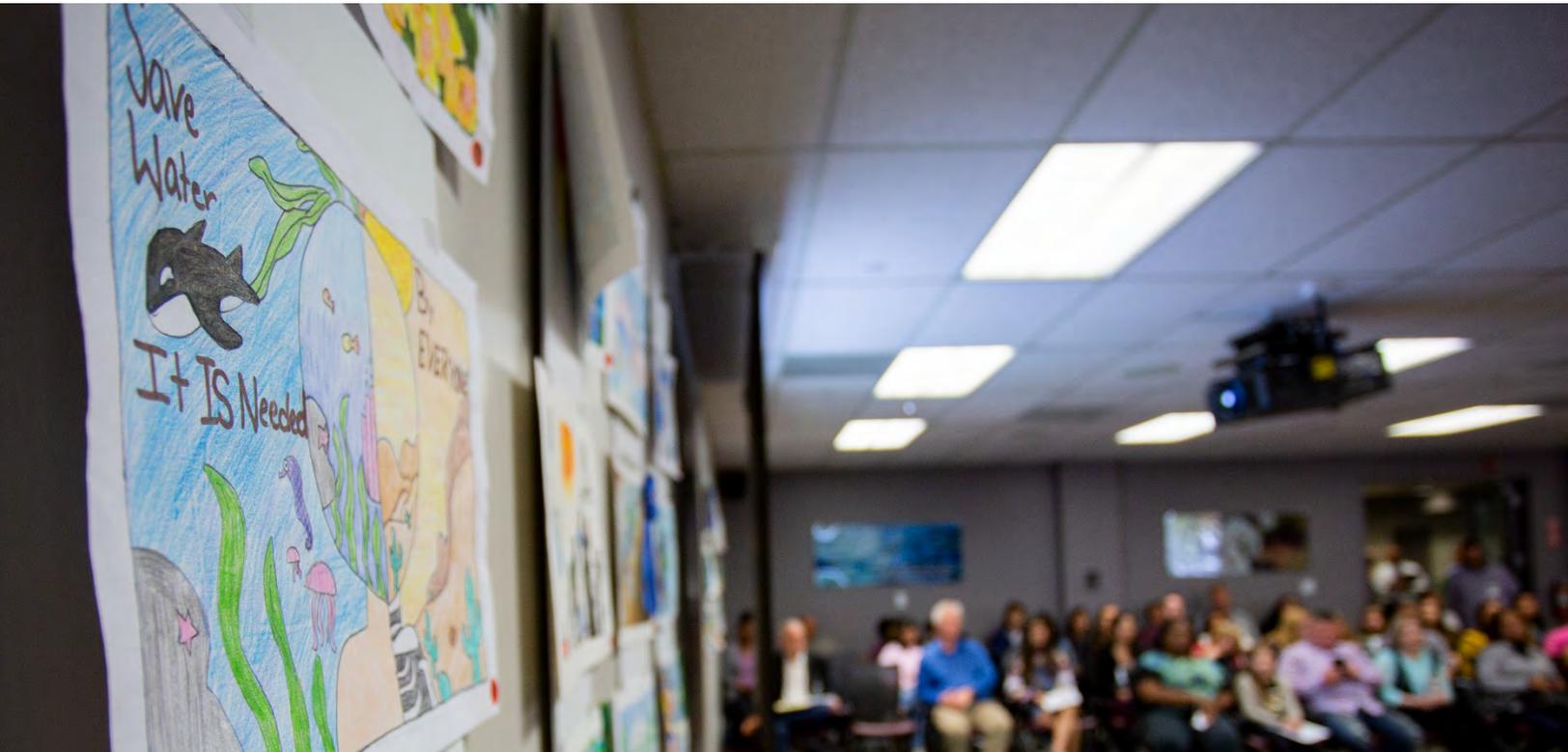
Through creative slogans and supporting artwork, students use their voices to inspire their communities to value and conserve water. Live online classroom art lessons are offered to support student submission efforts.

- **Water Industry Career Presentations**

Live online classroom presentations and guest speaker panel sessions introduce students to the professionals and career tracks in this rewarding field.

- **Games and Classroom Resources**

A variety of online sources are offered on the West Basin website to engage and educate students of all ages.



9.3 Water Conservation Programs and Other Demand Management Measures

9.3.1 Introduction

Water Use Efficiency (WUE) and conservation continue to play a foundational role in West Basin's water supply portfolio and long-term water demand management strategy.

In 2009, SB X7-7 was signed into law, which, among several new measures, mandated a 20% water reduction from urban water retailers by the year 2020. During the last UWMP reporting period of 2010–2015, the state of California experienced a severe drought that resulted in the declaration of a statewide emergency that further triggered mandatory water use reduction targets from all cities and retail water suppliers in California.

Between the years of 2015 and 2020, the state of California was coming out of a severe drought, and on May 31, 2018, the Governor of California signed two important pieces of legislation into law, SB 606 and AB 1668. These bills are part of the state's over-arching mission of "Making Conservation a California Way of Life" and directs the State Water Resources Control Board (SWRCB) and the Department of Water Resources (DWR) to work with the water industry and other stakeholders to develop the programs and resources that will help both water retail agencies and wholesalers to achieve the requirements provided in the new laws. Water retail agencies will need to start reporting on these two laws in 2023.

In 2015, SB 555 was signed into law, requiring water retailers to report on their water system losses beginning in 2024.

All of these requirements have and will continue to impact how water providers ensure reliable water supplies for their service areas going forward. West Basin is committed to complying with all required regulations and will work with its retail partners and other stakeholders to ensure that a coordinated plan is implemented in its service area to incorporate the new requirements in as effective a manner as possible. In addition to implementing its current water efficiency programs, West Basin plans to research cost-effective strategies for supporting the efforts of its retail agencies to meet the new regulations.

This section of the UWMP provides West Basin's:

- Programs and successes for the last five years
- Current programs
- New West Basin data study
- Study on under-served areas
- Partnerships

9.3.2 Past Five Years of Goals, Programs, and Successes

West Basin plays a key role in providing local water efficiency programs and technical support to its eight retail water agencies, which collectively serve residents in 17 cities and various unincorporated areas of Los Angeles County.

9.3.2.1 Water Use Efficiency Staffing

West Basin's Water Policy and Resources Development (WPRD) Department has five budgeted positions, which includes two positions that focus specifically on water efficiency and conservation issues. A Senior Water Policy and Resources Analyst and a Water Policy and Resources Analyst II are

both full-time positions that dedicate 100% of their time to developing, implementing, and managing West Basin's water efficiency programs. A second Senior Water Policy and Resources Analyst in the department also devotes time toward water efficiency issues by serving as a liaison between WPRD and West Basin's Public Information and Education department, coordinating outreach and education activities.

The WPRD department works on broader water policy, planning, and legislative strategies, with the water efficiency positions mentioned above implementing the various programs described in this section. In addition to implementing programs, the water efficiency team is also involved with participating in federal, state, and local efforts to support and promote water use efficiency in the state of California.

In 1991, West Basin became a signatory to the 14 Best Management Practices with the California Urban Water Conservation Council, now called the California Water Efficiency Partnership (CalWEP). This organization works closely with DWR and the SWRCB to develop the guidebooks that will assist water suppliers in meeting the new regulations. West Basin has a seat on the Board of CalWEP and helps to direct the strategies and goals of the organization.

The West Basin WUE staff also works closely with Metropolitan, attending the monthly WUE Coordinators meeting and participating in the quarterly Project Advisory Committee meetings, where regional programs and strategies are developed. The monthly WUE meeting provides a great forum to share ideas and learn about other agency programs.

In addition to CalWEP and Metropolitan, staff participates in various water industry-related organizational events, meetings, and webinars in an effort to stay at the forefront of the water industry's constantly evolving water efficiency requirements, best practices, and programs.

9.3.2.2 Outreach/Technical Assistance

In 2019 and 2020, West Basin hosted quarterly water efficiency meetings with its retail agencies, cities, and other stakeholders to inform and share pertinent water efficiency information. This forum was also used to include the local water retailers, cities, and other stakeholders with the development of West Basin's Water Use Efficiency Data Study that was completed in Fiscal Year 2018–2019.

9.3.2.3 Current Programs

As the imported water wholesaler for eight retail water supply agencies, West Basin has collaborated with many important stakeholders and leveraged funding to develop and implement cost-effective programs that conserve water and energy, reduce runoff, and provide other important environmental benefits.

Listed below are the programs that were implemented between 2015 and 2020:

Cash for Kitchens

In 2017, West Basin was awarded water-energy grants from the DWR in the amount \$294,125 and the United States Bureau of Reclamation (USBR) in the amount of \$272,125 to enhance the program. This additional funding increased the incentives available for large devices, including air-cooled ice machines, connectionless steamers, and high-efficiency dishwashers.

West Basin continues to work with program partners to offer the Cash for Kitchens program. This program is available to restaurants and commercial kitchen facilities, and provides water efficiency surveys, free water saving devices, educational materials, and large appliance rebates.



West Basin Municipal Water District
CASH FOR KITCHENS

Take an online survey to qualify for a **FREE** contactless water efficiency package for your restaurant or commercial kitchen!

www.westbasin.org/c4k

- Save Water, Save Money
- Online & Mobile-Friendly
- Contactless
- Save Energy
- Do It On Your Own Time

As of December 31, 2020, the Cash for Kitchens program has conducted 146 water efficiency surveys across the service area. Additionally, this program distributed a total of 23 pre-rinse kitchen sink spray valves and 70 sink flow restrictors. A total of six ice machine rebate applications were processed for City of Carson park facilities in 2020 to increase their efficiency through air-cooled devices.

To date, the installation of these water efficiency devices **will save 4,363,575 gallons** of water during the device lifetime.

Rain Barrel Distribution Programs

In 2013, with financial support from Metropolitan, West Basin piloted its first rain barrel distribution event. The event was a huge success and in 2014, West Basin conducted five events, one in each of its five Divisions, in which 1,000 rain barrels were distributed to the public. In 2015, West Basin doubled the quantity to 2,000 rain barrels. The distributed rain barrels were re-purposed food barrels that were sterilized and converted to be functional and safe, so no new plastic was created.



WEST BASIN MUNICIPAL WATER DISTRICT

RAIN BARREL HOME DELIVERY PROGRAM

Through 2020, West Basin has continued this popular program with over 13,000 rain barrels being distributed to local residents since program inception. The installation of rain barrels from this program will help to capture and reuse rainwater and reduce the amount of runoff from residential properties that contributes to pollution of local waterways and the ocean.

In 2021, West Basin is piloting a rain barrel home delivery program that will serve an additional 1,000 residents in the service area.

Change & Save Program

In 2017, West Basin was awarded a \$506,500 water-energy funding grant from DWR and California Climate Investments to implement a program that provides residents located in underserved areas with a free residential water use assessment, a free conservation kit, and an opportunity to qualify for a \$500 high-efficiency clothes washer rebate.

Table 9-5 lists the Change & Save Program goals achieved in 2020.

Table 9-5. 2020 Change & Save Program Measures Provided

MEASURE	CONDUCTED / PROVIDED
On-Site and On-Line Water Efficiency Assessments	500
Water Efficiency Kits	500
\$500 High-Efficiency Clothes Washer Rebates	50



Funding from DWR and Metropolitan extended West Basin’s administration of this program through June 30, 2021, allowing West Basin to provide an additional 500 surveys, 500 water-saving kits, and 350 high-efficiency clothes washer rebates.

In 2020, West Basin was selected to receive a Hermes award for its Change & Save program, for the effective and attractive use of various marketing and branding strategies to reach targeted populations living in underserved areas.



Malibu Smart and Topanga Smart

In 2017, West Basin formed an important collaboration with the City of Malibu and one of West Basin’s retail water agencies, the Los Angeles County Waterworks District #29. The partners applied for and received a \$1,059,260 grant from DWR to implement a coordinated, multi-faceted water-efficiency program called Malibu Smart and Topanga Smart. West Basin worked with a consultant to help develop the program, program brand, marketing materials, and to develop relationships within the Malibu and Topanga communities.

Since then, West Basin has worked closely with its program partners to provide the following resources:

- Free on-site consultations with residents
- Increased rebates, including a \$5 per square foot grass replacement rebate
- Increased incentives to residents and landscape contractors for the installation of water efficient equipment

- Free water efficiency and firescaping classes and webinars

During the period of 2015–2020, the program enjoyed many successes, but also weathered many challenges. In 2018, the City of Malibu was struck by the Woolsey Fire that destroyed over 450 homes and greatly impacted the area. In 2020, the COVID-19 pandemic provided additional obstacles for the program to overcome. Even with these challenges, West Basin and its partners were able to adjust the program to continue providing residents with cost-effective rebates and informational webinars. **Table 9-6** lists the performance measures achieved between 2015 and 2020 through the Malibu and Topanga Smart programs.

Table 9-6. Malibu/Topanga Smart Program Performance Measures from 2015–2020

MEASURE	PERFORMANCE METRIC
Grass Replacement	41,599 Sq. ft. replaced
Weather Based Irrigation Controllers	67 installed
Sprinkler Nozzles	1,648 installed
Large Water Collection Cisterns	2 installed
Rain Barrels	152 installed
High-Efficiency Toilets	6 installed
High-Efficiency Clothes Washers	43 installed
Conduct Outdoor Landscape Surveys	55 completed
Firescaping Training and Workshops	4 conducted
Advanced Metering Infrastructure (AMI), also called smart meters	2,446 installed
Landscape Spray Heads	389 installed
Water Meter Flow Sensors	3 installed
Drip Irrigation	32,800 LF installed

The goal of the program was to conserve 28,479,465 gallons per year, and as of spring 2021, the partners reached 94% completion. The grant is set to expire in the summer of 2021. Although program activities have been greatly reduced by COVID-19, the partners continue to promote water efficiency device rebates, and Los Angeles County continues to install AMI meters. By continuing these efforts, the partners continue to work toward reaching 100% of the conservation goal by the end of the DWR contract agreement.

Grass Removal Rebates

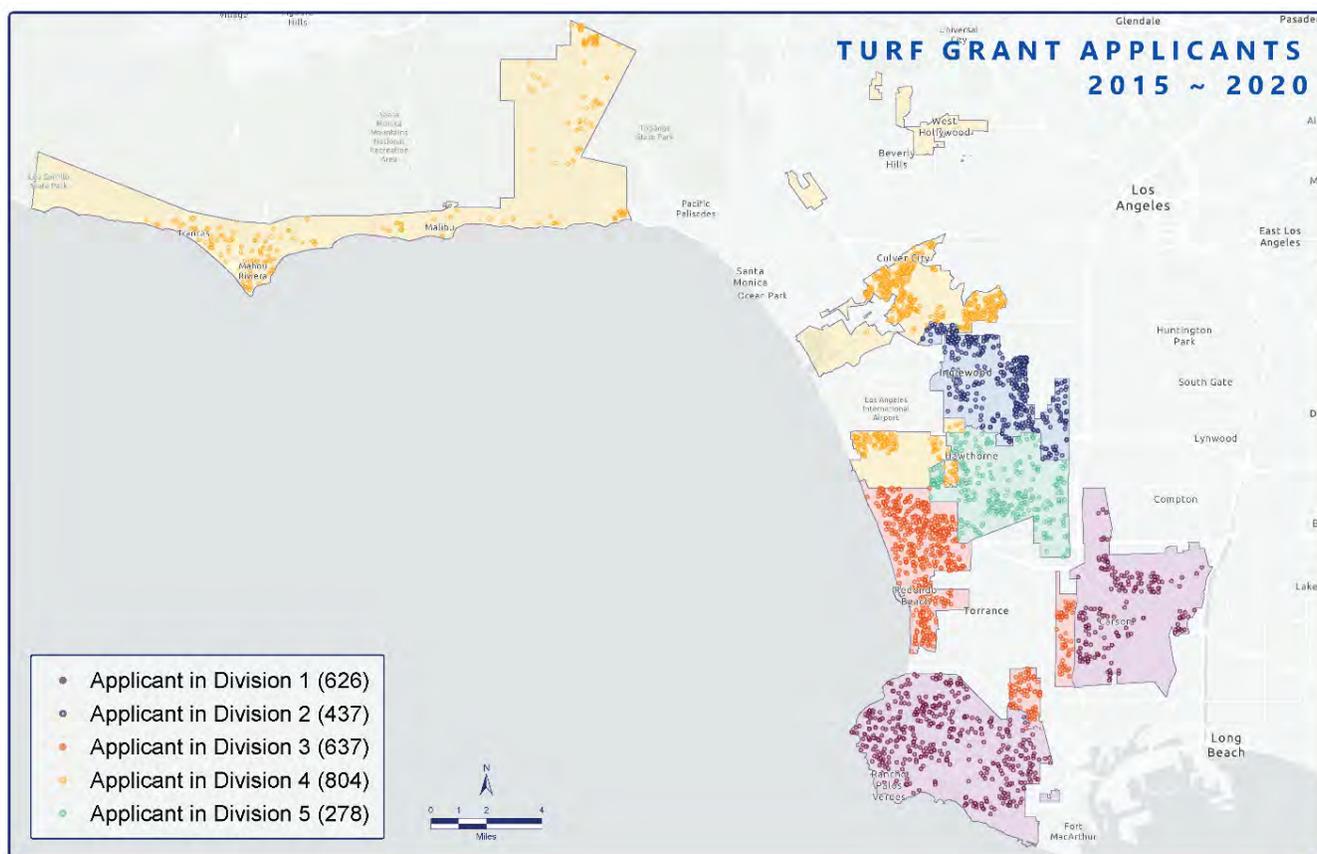
In 2015, West Basin made the decision to provide additional rebate funding of \$1 per square foot of grass removed to the Metropolitan incentive of \$2 per square foot through a grant received by USBR.

The combined \$3 per square foot rebate incentive for grass removal was a very successful program and funding only lasted for a few months.

Since the initial program, West Basin has continued to offer periodic supplemental funding for grass removal rebates throughout its service area. In doing so, the program continues to promote outdoor water efficiency through sustainable and climate-appropriate landscapes. In collaboration with Metropolitan, West Basin staff continue to promote this program and allocate supplemental funding from the West Basin budget each year. During periods when West Basin does not offer an additional \$1 rebate, it continues to promote and educate the public about Metropolitan’s \$2 per square foot grass removal rebate program.

Between 2015 and 2020, West Basin received 2,782 grass replacement rebate applications. **Figure 9-2** shows participation and density rates in the West Basin service area for the grass removal rebate program for this period.

Figure 9-2. West Basin Grass Removal Rebate Applications (2015-2020)



Water-Efficient Device Rebates

During this period, Metropolitan, with support from West Basin and local water retailers, provided rebates to encourage the public to purchase and install a variety of water efficient devices. Through the Change & Save program, increased marketing and outreach was conducted for high-efficiency clothes washers with a noted increase in application activity.

West Basin-led webinars promoted water efficient device rebates and savings through this campaign. Various forms of collateral were designed and shared across social media channels to encourage

residents and businesses to apply for water efficiency rebates. **Table 9-8** lists the conservation rebates West Basin provided between 2015 and 2020.

Table 9-7. Conservation Rebate Activity Summary (Metropolitan WaterSmart 2015-2020)

DEVICE	NUMBER OF REBATES
Single-Family Toilets	1,595
Single-Family Rotating Sprinkler Nozzles	2,801
Single-Family High-Efficiency Clothes Washers	2,938
Single-Family Weather-Based Irrigation Controllers	658
Multi-Family Toilets	7,686
Commercial Rotating Sprinkler Nozzles	9,683
Large Landscape Irrigation Controllers	563

Landscape Irrigation Efficiency Program

During the last five years, the Landscape Irrigation Efficiency Program (LIEP) provided residents and large landscape sites with free outdoor water evaluations. The LIEP included a site survey or evaluation, a list of recommended improvements and repairs, a recommended water budget and schedule, and water efficient rotating sprinkler nozzles. **Table 9-9** lists the LIEP measures conducted from 2015 through 2020.

Table 9-8. LIEP Measures from 2015–2020

MEASURE	QUANTITY
Landscape Surveys	150
Sprinkler Nozzles Installed	2,414

Ocean-Friendly Demonstration Gardens Program

West Basin worked with its cities and local schools during 2015–2017 to construct additional gardens and complete 17 Ocean-Friendly Demonstration Gardens across the service area. These gardens provide great examples of how California-friendly landscapes can conserve water, reduce runoff, and provide benefits to local wildlife, birds, and insects. West Basin continues to maximize these resources to promote climate appropriate landscaping across the service area.

Hermosa Beach Playhouse
710 Pier Avenue, Hermosa Beach, CA 90254 (2015)



3,628 ft²

Gardena - Rowley Park
13220 Van Ness Avenue, Gardena, CA 90249 (2015)



1,200 ft²

In late 2020, West Basin introduced Ocean-Friendly Garden webinars to support city and school staff in maintaining these sites through partner-created educational materials and content.

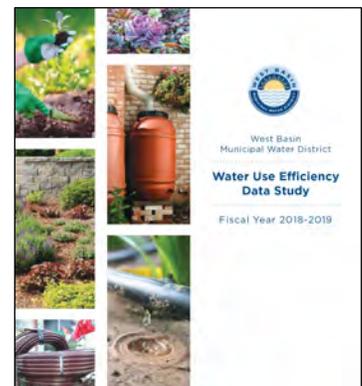
California-Friendly Landscape Classes and “Hands-On-Workshops”

During the period of 2010–2015, West Basin worked closely with the South Bay Cities Council of Governments (SBCCOG), as well as local cities and retail water agencies to implement over 30 California Friendly Landscape Classes and Ocean-Friendly Garden “Hands-on-Workshops” to teach residents how to construct a water-conserving garden. West Basin used the opportunity of constructing the gardens to also have a trained professional teach residents how to install the water conserving plants and drip irrigation system.



California-Friendly Landscape Workshop Series

West Basin, in collaboration with Metropolitan, has hosted California-Friendly Landscape classes across the service area. In-person classes have transitioned to a fully online resource for residents participating in the Grass Replacement Program. These classes are available through monthly webinars and include topics such as, California-Friendly Native Plant Landscape, Turf Removal and Garden Transformation, and a Garden Design Workshop. Residents benefit from additional online resources through Metropolitan’s BeWaterWise website, including the recently released *The Waterwise Garden Designed by Nature* handbook.



9.3.2.4 West Basin WUE Data Study

West Basin has long recognized the increasing need for supply reliability and growing emphasis on locally sourced water supplies. Over the last two decades, West Basin has taken a proactive approach to its WUE planning, with the development of its first Conservation Master Plan in 2006 and a subsequent WUE Master Plan in 2011.

In 2019, West Basin completed its WUE Data Study (Study). The Study provides West Basin with the data necessary for planning future programs. The objective of the Study is to provide a plan that articulates guiding principles and strategies for West Basin’s WUE programs to facilitate innovation and adaptability given California’s rapidly changing water resources landscape. West Basin plans to continue using the research and findings from the study to collaborate with its retail water suppliers in designing and implementing water efficiency programs that benefit the entire region.

9.3.2.5 Under-Served Areas Study

In 2019, West Basin partnered with Metropolitan to implement a study focused on the underserved communities within West Basin’s service area. The purpose of the study was to research how West

Basin could better promote and provide programs to this hard-to-reach sector. Historically, these communities have had lower participation rates in water efficiency and rebate programs.

The study results provided the following conclusions:

- Additional education and outreach programs are needed to reach these communities
- Bilingual information is also needed to better communicate with non-English speakers
- Further customer service assistance is required to help residents through the rebate process

The results of the study will help West Basin to develop more effective programs targeting residents in the under-served areas.

9.3.3 Future Programs

For 2021, West Basin plans to continue offering many of its programs to the communities it serves. West Basin has many popular and well branded programs that continue to receive broad community support. Unfortunately, in early 2020, COVID-19 struck the United States, and beginning in March 2020, West Basin staff began working from home.

To continue offering its usual slate of programs and rebates, West Basin staff moved quickly to adjust many of its programs. Staff developed virtual classes and modified its programs to make them contactless, to protect both staff and the public. Pending Board approval, the programs listed below will continue serving area residents and businesses through 2021.

Rain Barrel Home Delivery Pilot Program

In 2021, West Basin began piloting a new Rain Barrel Home Delivery Program. Through its partnership with the South Bay Environmental Services Center, residents can visit West Basin’s web site to order free rain barrels for home delivery. West Basin designed the program with safety in mind, and the rain barrels will be delivered directly to residential homes, contact free. West Basin plans to provide 1,000 rain barrels to qualifying residents on a first-come, first-served basis. As of late May 2021, nearly 900 of the 1,000 rain barrels offered through the delivery program had been reserved. Rain barrels continue to be very popular with the public and help to conserve water and reduce pollution runoff. Once COVID-19 restrictions have been largely lifted, West Basin will consider returning to in-person rain barrel distribution events or may move to a hybrid approach with both in-person and home delivery options.



Change & Save Program

West Basin’s Change & Save Program was offered from February 2020 through the summer of 2021. The program was developed with the help of a Water-Energy Grant from DWR, which allowed West Basin and its partners to develop a successful branded name, web site, videos, and attractive, award-winning marketing materials.

Although the grant expired in the summer of 2021, West Basin plans to use many of the branded materials to continue offering the program in future years in a reimagined way.



Pending Board approval, the new program could provide:

- Free online water efficiency assessments (on-site assessments may also be offered in the future)
- Free water efficiency kits
- Free water efficiency and leak detection webinars
- Potential combination of smart sprinkler controller giveaways, rebates, and educational webinars
- Dedicated website, social media, and newsletter resources

The program would continue to be offered to the underserved areas of West Basin, but could also be expanded to include additional West Basin communities.

Cash for Kitchens Program

West Basin's Cash for Kitchens Program will continue to serve restaurants and commercial kitchens with virtual water efficiency surveys and additional resources. This cornerstone program supports West Basin's mission in addressing water efficiency within the commercial, industrial, and institutional sector. Additional program elements were integrated with grant funding from DWR and USBR that will continue in the future program.

West Basin plans to continue serving this sector with free devices, water efficiency surveys, and increased appliance rebates through Metropolitan's Member Agency Administered Incentive Program.

Malibu Smart and Topanga Smart Programs

These programs focus on providing residents and landscape contractors with rebates and incentives to install water efficient equipment to reduce outdoor water use. West Basin's DWR grant was set to expire in the summer of 2021. However, similar to the Change & Save Program, West Basin and its partners developed a cohesive brand, web site, videos, and marketing materials that can continue to be utilized in the future.

West Basin will also continue building its partnership with the city of Malibu and Los Angeles County, to utilize the familiar branded program to provide available educational materials, rebates, incentives, and assistance to the residents of Malibu and Topanga.

Ocean-Friendly Garden Program

The Ocean-Friendly Garden Program will continue to support municipal and school staff managing the demonstration gardens built across the West Basin service area. Through collaboration with a local landscape maintenance company, West Basin will offer webinars, training resources, and on-call landscape maintenance visits.

West Basin will maximize its investments by continuing to promote the benefits of these climate appropriate gardens in conjunction with the existing grass replacement rebate.

9.3.4 Partnerships

In 2006, West Basin formed an important partnership with the region's local SBCCOG. The SBCCOG is a joint power authority that is comprised of elected representatives for the 16 cities in the south bay area. This organization operates a program called the South Bay Environmental Services Center (SBESC). The SBESC has partnered with many companies such as SoCal Edison, the Gas Company, the Sanitation District, LADWP, WRD, West Basin and several others. Over the years, the partners have fostered important relationships with cities, businesses, energy, environment, and other entities. West Basin works closely with SBCCOG/SBESC to promote and educate the public on many of its programs.

9.4 Asset Management

West Basin allocates annual funds as part of its Capital Improvement Program for maintenance and repair of its recycled water distribution system and C. Marvin Brewer Desalter operations. West Basin has an asset management program for the recycled water distribution system and Desalter operations for maintenance and improvements. West Basin responds to needed repairs as they arise and via scheduled maintenance as identified through the Asset Management Program.

Recycled Water Pipelines



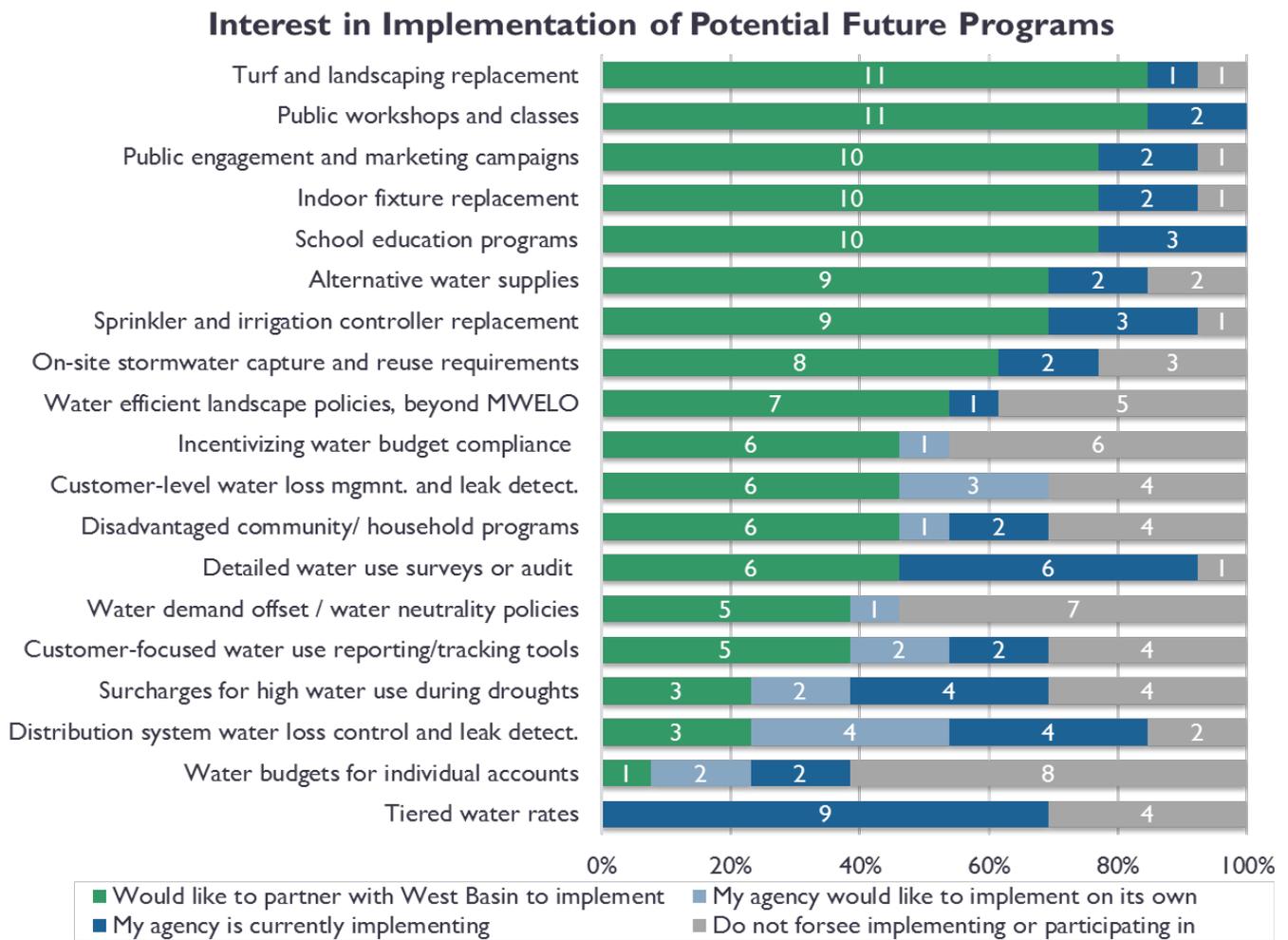
9.5 Ongoing Wholesaler Supplier Coordination and Future Assistance Programs

9.5.1 Water Use Efficiency Survey

Given that a key focus of West Basin’s WUE programs is to meet the needs of its retail agencies and local cities, a comprehensive survey (i.e., the WUE Survey) was conducted to better quantify and understand: (1) Which WUE programs that retail water providers and customers are utilizing, (2) What drives the agencies’ and customers’ needs to increase WUE opportunities, and (3) What additional programs the agencies and customers may benefit from.

As indicated in **Figure 9-3**, the stakeholder survey showed that interest in future programs and partnerships remains strong.

Figure 9-3. Interest in Implementation of Potential Future Programs



Stakeholders expressed a broad desire to partner with West Basin for the implementation of many types of programs. In general, the programs that stakeholders expressed the highest interest for

partnership with West Basin were public engagement and marketing campaigns, public education (school-age and adult), and device and landscape replacement programs. West Basin plans on using the data from the study to develop effective programs that will help meet a variety of goals.

9.5.2 Quarterly Meetings

West Basin conducts quarterly WUE meetings with its retailers to discuss current programs, regulations, legislation, and other important topics. The meetings are a great opportunity for West Basin to build and maintain relationships with its retailers on various topics related to water efficiency and conservation.

9.5.3 Assistance with State Water Resources Control Board Water Use Regulations and Reporting Requirements

West Basin has long recognized the increasing need for supply reliability and investing in locally sourced water supplies. Over the last two decades, West Basin has taken a proactive approach to its WUE planning, with the development of its Conservation Master Plan in 2006 and its WUE Master Plan in 2011. In addition, West Basin supported its retail agencies with the development of eight individual WUE Master Plans in 2011.

As a continuation of its leadership and proactive planning for WUE, West Basin worked to develop a WUE Data Study in 2019. The objective of the WUE Data Study was to provide a plan that articulates guiding principles and strategies for West Basin's WUE programs, while facilitating innovation and adaptability given California's rapidly changing water resources landscape. West Basin worked with its eight water retailers, local cities, environmental groups, and other stakeholders to develop the data study.

In 2021, the SWRCB, DWR, CalWEP, and other agencies have been working to develop the data and guidebooks necessary to assist the water retailers and wholesalers with meeting the requirements of the new 2018 Water Conservation Legislation¹. The new legislation is directed to the urban retail water suppliers throughout the state and requires reporting on the Water Use Objective that is effectively calculated like a water budget for the water service, water loss performance standard and other measures, starting in 2024.

During 2021, West Basin will use the 2011 Conservation Master Plan and 2019 WUE Data Study to help its local water retailers participate in the studies being conducted by the Department of Water Resources of the pending new California "Conservation as a Way of Life" regulations. West Basin will continue offering the current conservation programs, while evaluating the cost-effectiveness and necessity of future programs aimed at assisting its retail water suppliers with meeting the new requirements once the 2018 Legislation has been formulated into new water conservation regulations. It is anticipated that the 2025 UWMP will incorporate West Basin's adaptation of its program to best support the retail agency compliance with the new regulations.

¹ More information is available online: <https://water.ca.gov/Programs/Water-Use-And-Efficiency/2018-Water-Conservation-Legislation>

10

URBAN WATER MANAGEMENT PLAN

Plan Adoption, Submittal, and Implementation

This section describes the steps taken to adopt and submit the UWMP and to make it publicly available.

The 2020 Urban Water Management Plan (UWMP), 2021 Water Shortage Contingency Plan (WSCP), and 2015 UWMP addendum were prepared in a transparent manner, and West Basin actively engaged stakeholders, cities, counties, water agencies, and the public to both seek and distribute water use, supply, and reliability information to strengthen the region's ability to assess and plan for the region's water future. West Basin included all requisite 2020 data in the development of this UWMP.

IN THIS SECTION

- Public Hearing Notices
- Plan Adoption
- Public Availability

10.1 Notice of Public Hearing

California Water Code Section 10621(b) requires that suppliers notify the cities and counties in which they serve water that the UWMP and WSCP are being updated and reviewed. This notification must occur at least 60 days prior to the public hearing. To fulfill this requirement, West Basin sent notification letters to all cities and counties within the service area of its intent to update the UWMP more than 60 days prior to the public hearing. In addition, West Basin notified its retailers and other stakeholders, shown in **Chapter 2, Table 2-1**. A copy of the notification letters are included in **Appendix E** to this UWMP.

In addition to the notifications, West Basin actively engaged and coordinated with its retail agencies, Metropolitan, and other stakeholders throughout the preparation of this plan through a formal workshop and various meetings. More information on agency coordination is discussed in **Section 2.1**.

West Basin made the 2020 UWMP, 2021 WSCP, and 2015 UWMP addendum available for public review on May 25, 2021, and held a public hearing on June 10, 2021. The notice to the public was published once a week for two successive weeks. The public hearing was first noticed in five local newspapers in late May 2021, and noticed a second time in early June 2021, as shown in **Table 10-1**. The hearing notices are attached as **Appendix E**.

West Basin maintained a copy of the 2020 UWMP, 2021 WSCP, and 2015 UWMP addendum in its office prior to the public hearing for review and on the agency's website at www.westbasin.org.

Table 10-1. Newspaper Public Notices

PUBLICATION	FIRST PUBLISH DATE	SECOND PUBLISH DATE	LANGUAGE
Daily Breeze	May 25, 2021	June 1, 2021	English
Gardena Valley News	May 27, 2021	June 3, 2021	English
La Opinion	May 25, 2021	June 1, 2021	Spanish
Los Angeles Sentinel	May 27, 2021	June 3, 2021	English
Malibu Times	May 27, 2021	June 3, 2021	English

10.2 Public Hearing and Adoption

The 2020 UWMP, 2021 WSCP, and 2015 UWMP addendum were included as separate agenda items, noticed, and reviewed in a public hearing at a special Board of Directors meeting on June 10, 2021. This hearing provided cities, counties, and members of the public an opportunity to review the staff report and provide comments. The public hearing took place before the adoption, allowing the opportunity for the report to be modified in response to public input. The 2020 UWMP, 2021 WSCP, and 2015 UWMP addendum were adopted by West Basin's Board of Directors at its regularly scheduled Board meeting on **June 28, 2021**. A copy of each Board Resolution of Plan Adoption is included as **Appendix F**.

10.3 Plan Submittal

The 2020 UWMP, 2021 WSCP, and 2015 UWMP addendum were submitted to the California Department of Water Resources (DWR) by July 1, 2021 (within 30 days of adoption), using the online DWR WUE Data Portal. The documents were also submitted to the California State Library and to all cities and counties within West Basin's service area within 30 days of adoption.

10.4 Public Availability

Commencing no later than July 1, 2021, West Basin will make copies of the 2020 UWMP, 2021 WSCP, and 2015 UWMP addendum available for public review on the West Basin website at www.westbasin.org.

Additional copies of these documents will also be available for review at the West Basin Administrative Office (see address below) during normal business hours once the building has been reopened following the lifting of COVID-19 restrictions.

West Basin Municipal Water District
Donald L. Dear Building
17140 South Avalon Blvd.
Carson, CA 90746-1296

10.5 Amending an Adopted UWMP or WSCP

Amendments to West Basin's 2020 UWMP and 2021 WSCP will be made on an as-needed basis.

Should West Basin need to amend the adopted 2020 UWMP or 2021 WSCP in the future, West Basin will hold a public hearing for review of the proposed amendments to the documents. West Basin will send a 60-day notification letter to all cities and counties within its service area and notify the public in the same manner as set forth in **Chapter 2** of this UWMP. Once the amended document is adopted, a copy of the finalized version will be sent to the California State Library, DWR (electronically using the WUE data reporting tool), and all cities and counties within West Basin's service area within 30 days of adoption. The updated version will be posted to the West Basin website and hard copies will be available for public review at West Basin's Administrative Office during normal business hours.

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URBAN WATER MANAGEMENT PLAN

References

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A

UWMP Checklist

Subject	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	2020 UWMP Location
Introduction and Overview	Chapter 1	10615	A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities.	Section 1.1
Summary	Chapter 1	10630.5	Each plan shall include a simple description of the supplier's plan including water availability, future requirements, a strategy for meeting needs, and other pertinent information. Additionally, a supplier may also choose to include a simple description at the beginning of each chapter.	Chapter 1 Intro page
Plan Preparation	Section 2.2	10620(b)	Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.	N/A
Plan Preparation	Section 2.6	10620(d)(2)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Section 2.1
Plan Preparation	Section 2.6.2	10642	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan and contingency plan.	Appendix E
System Supplies	Section 2.6	10631(h)	Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.	Table 2-1 & Appendix E
System Description	Section 3.1	10631(a)	Describe the water supplier service area.	Section 3.1, Figure 3-2
System Description	Section 3.3	10631(a)	Describe the climate of the service area of the supplier.	Section 3.2
System Description	Section 3.4	10631(a)	Provide population projections for 2025, 2030, 2035, 2040 and optionally 2045.	Section 3.3, Table 3-2
System Description	Section 3.4.2	10631(a)	Describe other social, economic, and demographic factors affecting the supplier's water management planning.	Section 3.3.1
System Description and Baselines and Targets	Sections 3.4 and 5.4	10631(a)	Indicate the current population of the service area.	Section 3.3, Table 3-2
System Description	Section 3.5	10631(a)	Describe the land uses within the service area.	N/A
System Water Use	Section 4.2	10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	Section 4.1, Section 4.2
System Water Use	Section 4.2.6	10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans and other policies or laws.	Section 4.1.2: Conservation
System Water Use	Section 4.2.6	10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	Section 4.1.2
System Water Use	Section 4.5	10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	Section 3.2.1

Subject	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	2020 UWMP Location
Baselines and Targets	Section 5.1	10608.36	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions.	Section 9.3
System Supplies	Sections 6.1 and 6.2	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought.	Section 7.2
System Supplies	Sections 6.1	10631(b)(1)	Provide a discussion of anticipated supply availability under a normal, single dry year, and a drought lasting five years, as well as more frequent and severe periods of drought, <i>including changes in supply due to climate change.</i>	Section 7.1.5
System Supplies	Section 6.1	10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	Section 6.1
System Supplies	Section 6.1.1	10631(b)(3)	Describe measures taken to acquire and develop planned sources of water.	Section 6.8.2
System Supplies	Section 6.2.8	10631(b)	Identify and quantify the existing and planned sources of water available for 2020, 2025, 2030, 2035, 2040 and optionally 2045.	Section 6.9
System Supplies	Section 6.2	10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	Section 6.3
System Supplies	Section 6.2.2	10631(b)(4)(A)	Indicate whether a groundwater sustainability plan or groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	N/A
System Supplies	Section 6.2.2	10631(b)(4)(B)	Describe the groundwater basin.	Section 6.3.1
System Supplies	Section 6.2.2	10631(b)(4)(B)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	Appendix G
System Supplies	Section 6.2.2.1	10631(b)(4)(B)	For unadjudicated basins, indicate whether or not the department has identified the basin as a high or medium priority. Describe efforts by the supplier to coordinate with sustainability or groundwater agencies to achieve sustainable groundwater conditions.	N/A
System Supplies	Section 6.2.2.4	10631(b)(4)(C)	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	Section 6.3.2
System Supplies	Section 6.2.2	10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	Section 6.3.3
System Supplies	Section 6.2.7	10631(c)	Describe the opportunities for exchanges or transfers of water on a short-term or long- term basis.	Section 6.6
System Supplies (Recycled Water)	Section 6.2.5	10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	Section 6.4, Section 6.4.2
System Supplies (Recycled Water)	Section 6.2.5	10633(c)	Describe the recycled water currently being used in the supplier's service area.	Section 6.4, Section 6.4.1, Section 6.4.4
System Supplies (Recycled Water)	Section 6.2.5	10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	Section 6.4.4

Subject	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	2020 UWMP Location
System Supplies (Recycled Water)	Section 6.2.5	10633(e)	Describe the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	Section 6.4.2
System Supplies (Recycled Water)	Section 6.2.5	10633(f)	Describe the actions which may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	Section 6.4.3
System Supplies (Recycled Water)	Section 6.2.5	10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	Section 6.4.3
System Supplies	Section 6.2.6	10631(g)	Describe desalinated water project opportunities for long-term supply.	Section 6.5, Section 6.8
System Supplies (Recycled Water)	Section 6.2.5	10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area with quantified amount of collection and treatment and the disposal methods.	Section 6.4, Section 6.4.2
System Supplies	Section 6.2.8, Section 6.3.7	10631(f)	Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and for a period of drought lasting 5 consecutive water years.	Section 7.1.4
System Suppliers, Energy Intensity	Section 6.4 and Appendix O	10631.2(a)	The UWMP must include energy information, as stated in the code, that a supplier can readily obtain.	Section 6.10
Water Supply Reliability Assessment	Section 7.2	10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability	Section 7.1.6
Water Supply Reliability Assessment	Section 7.2.4	10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Section 7.1
Water Supply Reliability Assessment	Section 7.3	10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years.	Section 7.2.2
Water Supply Reliability Assessment	Section 7.3	10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	Section 7.3
Water Supply Reliability Assessment	Section 7.3	10635(b)(1)	Include a description of the data, methodology, and basis for one or more supply shortage conditions that are necessary to conduct a drought risk assessment for a drought period that lasts 5 consecutive years.	Section 7.3.1
Water Supply Reliability Assessment	Section 7.3	10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Section 7.3.2

Subject	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	2020 UWMP Location
Water Supply Reliability Assessment	Section 7.3	10635(b)(3)	Include a comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.	Section 7.1.6
Water Supply Reliability Assessment	Section 7.3	10635(b)(4)	Include considerations of the historical drought hydrology, plausible changes on projected supplies and demands under climate change conditions, anticipated regulatory changes, and other locally applicable criteria.	Section 7.2.1
Water Shortage Contingency Planning	Chapter 8	10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Appendix C
Water Shortage Contingency Planning	Chapter 8	10632(a)(1)	Provide the analysis of water supply reliability (from Chapter 7 of Guidebook) in the WSCP	Appendix C: Section 3.1
Water Shortage Contingency Planning	Section 8.10	10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the water shortage contingency plan to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Appendix C: Section 3.2
Water Shortage Contingency Planning	Section 8.2	10632(a)(2)(A)	Provide the written decision-making process and other methods that the supplier will use each year to determine its water reliability.	Appendix C: Section 3.2.1
Water Shortage Contingency Planning	Section 8.2	10632(a)(2)(B)	Provide data and methodology to evaluate the supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Appendix C: Section 3.2.2
Water Shortage Contingency Planning	Section 8.3	10632(a)(3)(A)	Define six standard water shortage levels of 10, 20, 30, 40, 50 percent shortage and greater than 50 percent shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Appendix C: Section 3.3
Water Shortage Contingency Planning	Section 8.3	10632(a)(3)(B)	Suppliers with an existing water shortage contingency plan that uses different water shortage levels must cross reference their categories with the six standard categories.	N/A
Water Shortage Contingency Planning	Section 8.4	10632(a)(4)(A)	Suppliers with water shortage contingency plans that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Appendix C: Section 3.4.2
Water Shortage Contingency Planning	Section 8.4	10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Appendix C: Section 3.4.1
Water Shortage Contingency Planning	Section 8.4	10632(a)(4)(C)	Specify locally appropriate operational changes.	Appendix C: Section 3.4.3
Water Shortage Contingency Planning	Section 8.4	10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions are appropriate to local conditions.	Appendix C: Section 3.4.4

Subject	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	2020 UWMP Location
Water Shortage Contingency Planning	Section 8.4	10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Appendix C: Section 3.4.7
Water Shortage Contingency Plan	Section 8.4.6	10632.5	The plan shall include a seismic risk assessment and mitigation plan.	Appendix C: Section 3.4.6
Water Shortage Contingency Planning	Section 8.5	10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Appendix C: Section 3.5
Water Shortage Contingency Planning	Section 8.5 and 8.6	10632(a)(5)(B) 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Appendix C: Section 3.5
Water Shortage Contingency Planning	Section 8.7	10632(a)(7)(B)	Provide a statement that the supplier will declare a water shortage emergency Water Code Chapter 3.	Appendix C: Section 3.7
Water Shortage Contingency Planning	Section 8.7	10632(a)(7)(C)	Provide a statement that the supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Appendix C: Section 3.7
Water Shortage Contingency Planning	Section 8.8	10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Appendix C: Section 3.8
Water Shortage Contingency Planning	Section 8.8	10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Appendix C: Section 3.8
Plan Adoption, Submittal, and Implementation	Sections 8.12 and 10.4	10635(c)	Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county within which it provides water, no later than 30 days after the submission of the plan to DWR.	Appendix C: Section 3.12
Water Shortage Contingency Planning	Section 8.14	10632(c)	Make available the Water Shortage Contingency Plan to customers and any city or county where it provides water within 30 after adopted the plan.	Appendix C: Section 3.12
Demand Management Measures	Sections 9.1 and 9.3	10631(e)(2)	Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program.	Section 9.4, Section 9.5
Plan Adoption, Submittal, and Implementation	Section 10.2.1	10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.	Section 10.1, Section 10.3
Plan Adoption, Submittal, and Implementation	Section 10.4	10621(f)	Each urban water supplier shall update and submit its 2020 plan to the department by July 1, 2021.	Section 10.1

Subject	2020 Guidebook Location	Water Code Section	Summary as Applies to UWMP	2020 UWMP Location
Plan Adoption, Submittal, and Implementation	Sections 10.2.2, 10.3, and 10.5	10642	Provide supporting documentation that the urban water supplier made the plan and contingency plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan and contingency plan.	Appendix E
Plan Adoption, Submittal, and Implementation	Section 10.2.2	10642	The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water.	Section 10.1, Section 10.2
Plan Adoption, Submittal, and Implementation	Section 10.3.2	10642	Provide supporting documentation that the plan and contingency plan has been adopted as prepared or modified.	Appendix F
Plan Adoption, Submittal, and Implementation	Section 10.4	10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Section 10.3
Plan Adoption, Submittal, and Implementation	Section 10.4	10644(a)(1)	Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Section 10.4
Plan Adoption, Submittal, and Implementation	Sections 10.4.1 and 10.4.2	10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Section 10.3
Plan Adoption, Submittal, and Implementation	Section 10.5	10645(a)	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Section 10.4
Plan Adoption, Submittal, and Implementation	Section 10.5	10645(b)	Provide supporting documentation that, not later than 30 days after filing a copy of its water shortage contingency plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Section 10.4
Plan Adoption, Submittal, and Implementation	Section 10.6	10621(c)	If supplier is regulated by the Public Utilities Commission, include its plan and contingency plan as part of its general rate case filings.	N/A
Plan Adoption, Submittal, and Implementation	Section 10.7.2	10644(b)	If revised, submit a copy of the water shortage contingency plan to DWR within 30 days of adoption.	Section 10.5

B

DWR Standardized Tables

2-2 | Public Water Systems

Type of Plan	Member of RUWMP	Member of Regional Alliance	Name of RUWMP or Regional Alliance
Individual UWMP	No	No	

2-3 | Agency Identification

Type of Supplier	Year Type	First Day of Year		Unit Type
Wholesaler	Fiscal Years	DD	MM	Acre Feet (AF)
		1	7	

Conversion to Gallons: 325851
Conversion to Gallons per Day: 892.7425

2-4W | Water Supplier Information Exchange

Supplier has informed more than 10 other water suppliers of water supplies available in accordance with Water Code Section 10631. Completion of the table below is optional.

If not completed, include a list of the water suppliers that were informed.

Location of List:

3-1W | Current & Projected Population

Population Served	2020	2025	2030	2035	2040	2045
Total	829,000	869,252	880,718	893,089	902,163	913,615
Source: Metropolitan Water District of Southern California 2020 UWMP						

4-1W | Actual Demands for Water

Use Type	Additional Description	Level of Treatment When Delivered	2020 Volume
Sales/Transfers/Exchanges to Other Agencies	Sales - Imported Water	Drinking Water	105,686
Sales/Transfers/Exchanges to Other Agencies	Sales - Brackish Groundwater	Drinking Water	124
Saline Water Intrusion Barrier	Sales - Imported Water	Drinking Water	6,950
Total:			112,760
Note: 2020 volume excludes recycled water.			

4-2W | Projected Demands for Water

Use Type	Additional Description	Projected Water Use				
		2025	2030	2035	2040	2045
Sales/Transfers/Exchanges to Other Agencies	Sales - Imported Water	95,890	89,460	89,750	89,360	89,460
Total:		95,890	89,460	89,750	89,360	89,460
Note: Projections excludes recycled water.						

4-3W | Total Water Use

	2020	2025	2030	2035	2040	2045
Potable and Raw Water From Table 4-1W and 4-2W	112,760	95,890	89,460	89,750	89,360	89,460
Recycled Water Demand* From Table 6-4W	28,045	50,300	60,700	70,700	76,300	76,300
Total Water Demand:	140,805	146,190	150,160	160,450	165,660	165,760

6-1W | Groundwater Volume Pumped

All or part of the groundwater described below is desalinated.						
Groundwater Type	Location or Basin Name	2016	2017	2018	2019	2020
Alluvial Basin	West Coast Basin	779	284	50	238	124
Total:		779	284	50	238	124

6-3W | Wastewater Treatment & Discharge Within Service Area in 2020

The supplier will complete the table.											
Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Wastewater Discharge ID Number	Method of Disposal	Plant Treats Wastewater Generated Outside the Service Area	Treatment Level	2020 Volumes				
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area	Instream Flow Permit Requirement
ELCWRF	Brine permit: NPDES #CA0063401	Brine is to the City of Los Angeles' Hyperion WRF ocean outfall		Ocean outfall	Yes	Tertiary	34,903	-	28,046	6,857	-
Total:							34,903	-	28,046	6,857	-

6-4W | Current & Projected Retailers Provided Recycled Water within Service Area

The supplier will complete the table.							
Name of Receiving Supplier or Direct Use by Wholesaler	Level of Treatment	2020	2025	2030	2035	2040	2045
Retail Agencies	Tertiary and Advanced	14,961	30,300	31,700	31,700	31,700	31,700
Water Replenishment Dist. of So. California	Advanced	13,084	20,000	29,000	39,000	44,600	44,600
Total:		28,045	50,300	60,700	70,700	76,300	76,300
Note: All water to WRD is for the West Coast Barrier and additional groundwater augmentation.							

6-5W | 2015 Recycled Water Use Projection Compared to 2020 Actual

The supplier will complete the table.		
Name of Receiving Supplier or Direct Use by Wholesaler	2015 Projection for 2020	2020 Actual Use
WBMWD	21,894	14,961
WBMWD (IPR)	17,000	13,084
City of Torrance	5,421	5,424
City of Los Angeles	970	1,433
Total:	45,285	34,903

6-7W | Expected Future Water Supply Projects or Programs

<p>Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.</p>						
<p>Page Location for Narrative in UWMP:</p>			<p>Expanded recycled water use in Section 6.4.2 (page 6-14) and ocean desalination in Section 6.8 (page 6-17).</p>			
Name of Future Projects or Programs	Joint Project with Other Suppliers	Agency Name	Description	Planned Implementation Year	Planned for Use in Year Type	Expected Increase in Water Supply to Supplier

6-8W | Actual Water Supplies

Water Supply	Additional Detail on Water Supply	2020		
		Actual Volume	Water Quality	Total Right or Safe Yield
Purchased or Imported Water	Direct Use	105,686	Drinking Water	
Purchased or Imported Water	Seawater Barrier Replenishment	6,950	Drinking Water	
Desalinated Water - Groundwater		124	Drinking Water	
Total:		112,760		-
<p>Note: Does not include recycled water deliveries for non-potable use or seawater barrier replenishment.</p>				

6-8DS | Source Water Desalination

The supplier will complete the table below.										
Plant Name or Well ID	Plant Capacity	Intake Type	Source Water Type	Influent TDS	Brine Discharge	Volume of Water Desalinated in AFY				
						2016	2017	2018	2019	2020
C. Marvin Brewer Desalter	1120	Vertical Well	Groundwater	3,300	Sewer	779	284	50	238	124
Total:						779	284	50	238	124

6-9W | Projected Water Supplies

Water Supply	Additional Detail on Water Supply	Projected Water Supply									
		2025		2030		2035		2040		2045	
		Reasonably Available Volume	Total Right or Safe Yield	Reasonably Available Volume	Total Right or Safe Yield	Reasonably Available Volume	Total Right or Safe Yield	Reasonably Available Volume	Total Right or Safe Yield	Reasonably Available Volume	Total Right or Safe Yield
Purchased or Imported Water	from Metropolitan	95,890		89,460		89,750		89,360		89,460	
Recycled Water	For Delivery in the West Basin Service Area only	30,300		31,700		31,700		31,700		31,700	
Recycled Water	For Saltwater Barrier Replenishment	20,000		29,000		39,000		44,600		44,600	
Total:		146,190	-	150,160	-	160,450	-	165,660	-	165,760	-

7-1W | Basis of Water Year Data (Reliability Assessment)

Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. See Section 7.2			
Year Type	Base Year	Available Supply if Year Type Repeats	
		Volume Available	Percent of Average Supply
Average Year			
Single-Dry Year			
Consecutive Dry Years 1st Year			
Consecutive Dry Years 2nd Year			
Consecutive Dry Years 3rd Year			
Consecutive Dry Years 4th Year			
Consecutive Dry Years 5th Year			

7-2W | Normal Year Supply and Demand Comparison

	2025	2030	2035	2040	2045
Supply Totals From Table 6-9W	146,190	150,160	160,450	165,660	165,760
Demand Totals From Table 4-3W	146,190	150,160	160,450	165,660	165,760
Difference:	0	0	0	0	0

7-3W | Single Dry Year Supply & Demand Comparison

	2025	2030	2035	2040	2045
Supply Totals	146,190	150,160	160,450	165,660	165,760
Demand Totals	146,190	150,160	160,450	165,660	165,760
Difference:	0	0	0	0	0

7-4W | Multiple Dry Years Supply & Demand Comparison

		2025	2030	2035	2040	2045
First Year	Supply Totals	146,190	150,160	160,450	165,660	165,760
	Demand Totals	146,190	150,160	160,450	165,660	165,760
Difference:		0	0	0	0	0
Second Year	Supply Totals	146,190	150,160	160,450	165,660	165,760
	Demand Totals	146,190	150,160	160,450	165,660	165,760
Difference:		0	0	0	0	0
Third Year	Supply Totals	146,190	150,160	160,450	165,660	165,760
	Demand Totals	146,190	150,160	160,450	165,660	165,760
Difference:		0	0	0	0	0
Fourth Year	Supply Totals	146,190	150,160	160,450	165,660	165,760
	Demand Totals	146,190	150,160	160,450	165,660	165,760
Difference:		0	0	0	0	0
Fifth Year	Supply Totals	146,190	150,160	160,450	165,660	165,760
	Demand Totals	146,190	150,160	160,450	165,660	165,760
Difference:		0	0	0	0	0

7-5 | Five-Year Drought Risk Assessment Tables to Address Water Code Section 10635(b)

2021	Gross Water Use	141,880
	Total Supplies	141,880
	Surplus/Shortfall without WSCP Action	0
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	
	WSCP (Use Reduction Savings Benefit)	
	Revised Surplus/Shortfall	0
Resulting Percent Use Reduction from WSCP Action	0%	
2022	Gross Water Use	142,960
	Total Supplies	142,960
	Surplus/Shortfall without WSCP Action	0
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	
	WSCP (Use Reduction Savings Benefit)	
	Revised Surplus/Shortfall	0
Resulting Percent Use Reduction from WSCP Action	0%	
2023	Gross Water Use	144,040
	Total Supplies	144,040
	Surplus/Shortfall without WSCP Action	0
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	
	WSCP (Use Reduction Savings Benefit)	
	Revised Surplus/Shortfall	0
Resulting Percent Use Reduction from WSCP Action	0%	
2024	Gross Water Use	145,120
	Total Supplies	145,120
	Surplus/Shortfall without WSCP Action	0
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	
	WSCP (Use Reduction Savings Benefit)	
	Revised Surplus/Shortfall	0
Resulting Percent Use Reduction from WSCP Action	0%	
2025	Gross Water Use	146,190
	Total Supplies	146,190
	Surplus/Shortfall without WSCP Action	0
	Planned WSCP Actions (Use Reduction and Supply Augmentation)	
	WSCP (Supply Augmentation Benefit)	
	WSCP (Use Reduction Savings Benefit)	
	Revised Surplus/Shortfall	0
Resulting Percent Use Reduction from WSCP Action	0%	

10-1W | Notification to Cities & Counties

Supplier has notified more than 10 cities or counties in accordance with Water Code Sections 10621 (b) and 10642. Completion of the table is not required. Provide a separate list of the cities and counties that were notified.

Page Location for List in UWMP:

Table 2-1



Water Shortage Contingency Plan

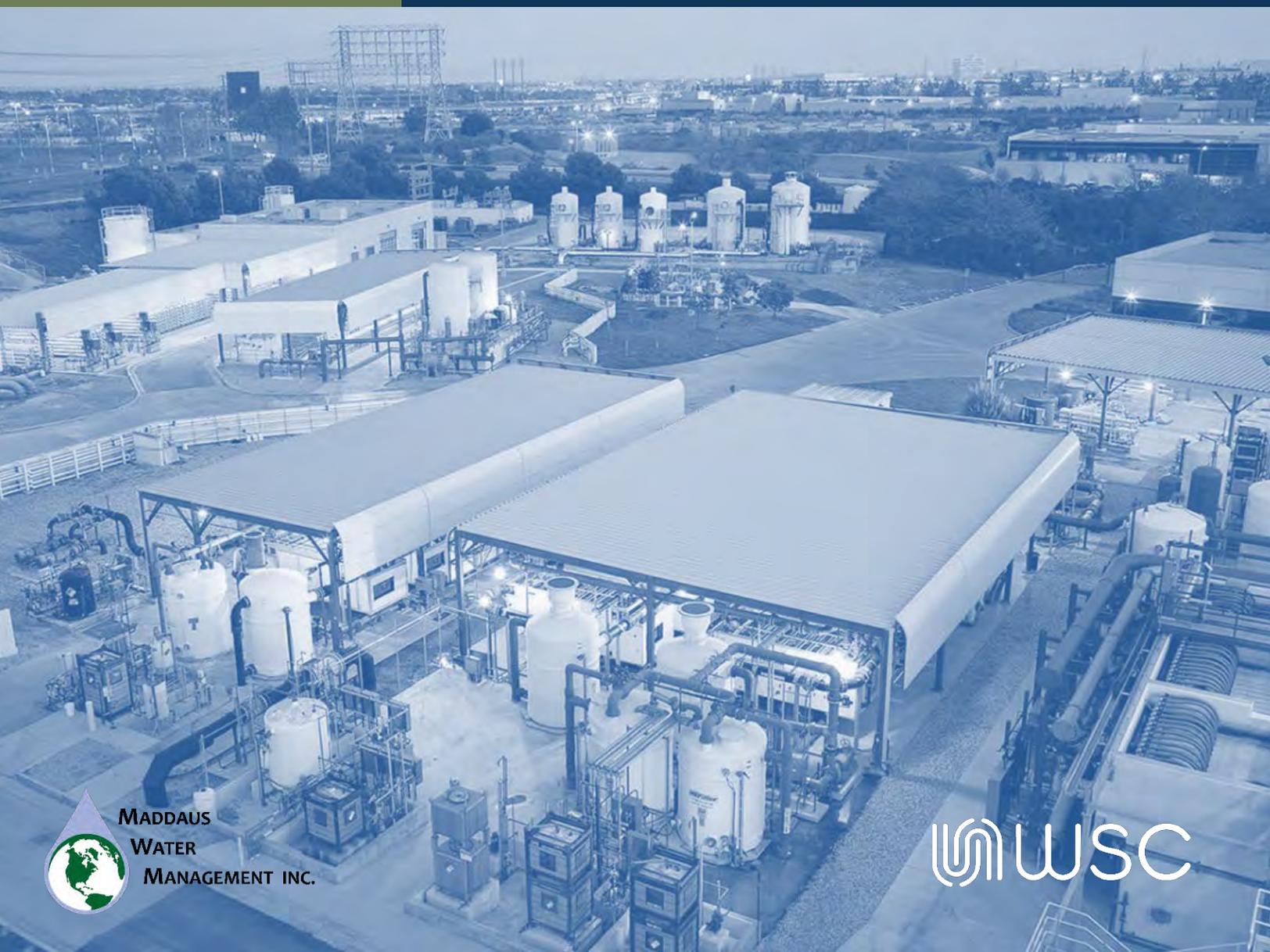


Water Shortage Contingency Plan

Draft

MAY 2021

WEST BASIN MUNICIPAL WATER DISTRICT

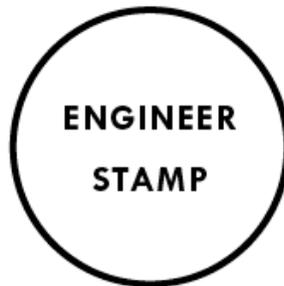




WEST BASIN MUNICIPAL WATER DISTRICT

Water Shortage Contingency Plan

MAY 25, 2021



Prepared by Maddaus Water Management, Inc and Water Systems Consulting, Inc.



ACKNOWLEDGMENTS

The 2021 Water Shortage Contingency Plan was prepared by Maddaus Water Management, Inc. in conjunction with Water Systems Consulting, Inc. The primary authors are listed below.



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ACRONYMS & ABBREVIATIONS

ACWA	Association of California Water Agencies
CWC	California Water Code
DRP	Drought Rationing Plan
DWR	California Department of Water Resources
IAWP	Interim Agricultural Water Program (Met)
Metropolitan	Metropolitan Water District of Southern California
UWMP	Urban Water Management Plan
WCGB	West Coast Groundwater Basin
WRD	Water Replenishment District
WSAP	Water Supply Allocation Plan
WSCP	Water Shortage Contingency Plan
WSDM	Water Shortage and Demand Management
WUE	Water Use Efficiency
West Basin	West Basin Municipal Water District

1

WATER SHORTAGE CONTINGENCY PLAN

Introduction and WSCP Overview

The Water Shortage Contingency Plan (WSCP) is a strategic planning document designed to prepare for and respond to water shortages.

This WSCP complies with California Water Code (CWC) Section 10632, which requires that every urban water supplier prepare and adopt a WSCP as part of its urban water management plan (UWMP). This level of detailed planning and preparation is intended to help maintain reliable supplies and reduce the impacts of supply interruptions.

IN THIS SECTION

- WSCP Overview and Organization
- Integration to Other Planning Efforts

West Basin Municipal Water District (West Basin) uses its WSCP as an operating manual to prevent catastrophic service disruptions through proactive, rather than reactive, management. A water shortage — when water supply availability is insufficient to meet the normally expected customer water use at a given point in time — may occur because of a number of reasons, such as drought, climate change, or catastrophic events. This WSCP provides a structured guide for West Basin to deal with temporary water shortages, incorporating prescriptive information and standardized action levels along with implementation actions, in the event of a catastrophic supply interruption. This allows West Basin's governing body, its staff, and retail agencies to easily identify and efficiently implement predetermined steps to manage a water shortage with predictability and accountability. A well-structured WSCP also allows for real-time water supply availability assessments and structured steps designed to respond to actual conditions.

The WSCP also describes West Basin's procedures for conducting an Annual Water Supply and Demand Assessment (Annual Assessment), which is required by CWC Section 10632.1. Starting in 2022, the Annual Assessment is due to the California Department of Water Resources (DWR) on or before July 1 of each year or within 14 days of receiving final allocations from the State Water Project, whichever is later. West Basin's 2021 WSCP is created as a separate plan, but is included as an attachment to its 2020 UWMP, which will be submitted to DWR by July 1, 2021 (West Basin Municipal Water District, June 2021). However, the 2021 WSCP can be amended, as needed, without amending the UWMP. It is important to note that the CWC does not prohibit an urban water supplier from taking actions not specified in its WSCP, if needed, without having to formally amend its UWMP or WSCP.

1.1 Water Shortage Contingency Plan Requirements and Organization

The WSCP provides the steps and water-shortage response actions to be taken in times of water-shortage conditions.

Each WSCP has prescriptive elements, such as:

- An analysis of water supply reliability
- The water-shortage response actions for each of the six standard water-shortage levels, which correspond to water-shortage percentages ranging from 10% to greater than 50%
- An estimate of potential demand reduction for each measure to close an anticipated water supply gap
- Protocols and procedures to communicate identified actions for any current or predicted water-shortage conditions
- Procedures for an Annual Water Supply and Demand Assessment
- Reevaluation and improvement procedures for evaluating the WSCP

This WSCP is organized into three main sections, with Section 3 aligned with the CWC Section 10632 requirements:

Section 1 Introduction and WSCP Overview – provides an overview of the WSCP fundamentals.

Section 2 Background Information – provides details on West Basin's water service area, including a description and map of the service area and retail water agencies served by West Basin.

Section 3 Water Shortage Contingency Preparation and Response – provides significant details regarding water shortage preparation and response as outlined further in the Section 3 subsections.

- **Section 3.1 Water Supply Reliability Analysis** – provides a summary of the water supply analysis and water reliability findings from the 2020 UWMP.
- **Section 3.2 Annual Water Supply and Demand Assessment Procedures** – provides a description of procedures to conduct and approve the Annual Assessment.
- **Section 3.3 Six Standard Water Shortage Levels** – explains the WSCP's six standard water-shortage levels, corresponding to progressive water-shortage ranges from up to 10% to more than 50%.

- **Section 3.4 Shortage Response Actions** – describes the WSCP’s shortage response actions that align with the defined shortage levels.
- **Section 3.5 Communication Protocols** – addresses communication protocols and procedures to inform retail agencies; the public; interested parties; and local, regional, and state governments regarding any current or predicted shortages and any resulting shortage response actions.
- **Section 3.6 Compliance and Enforcement** – is not required by wholesale water providers.
- **Section 3.7 Legal Authorities** – describes the legal authorities that enable West Basin to implement and enforce its shortage response actions.
- **Section 3.8 Financial Consequences of the WSCP** – provides a description of the financial consequences of and responses to drought conditions.
- **Section 3.9 Monitoring and Reporting** – is not required by wholesale water providers.
- **Section 3.10 WSCP Refinement Procedures** – addresses reevaluation and improvement procedures for monitoring and evaluating the functionality of the WSCP.
- **Section 3.11 Special Water Feature Distinction** – is not required by wholesale water providers.
- **Section 3.12 Plan Adoption, Submittal, and Implementation** – provides a record of the process West Basin followed to adopt and implement its WSCP.

Section 3.6, Section 3.9, and Section 3.11 are not required to be completed by wholesale water suppliers like West Basin. However, West Basin will provide ongoing support to its retail agencies to comply with these sections in the agencies’ own individual WSCPs.

1.2 Integration with Other Planning Efforts

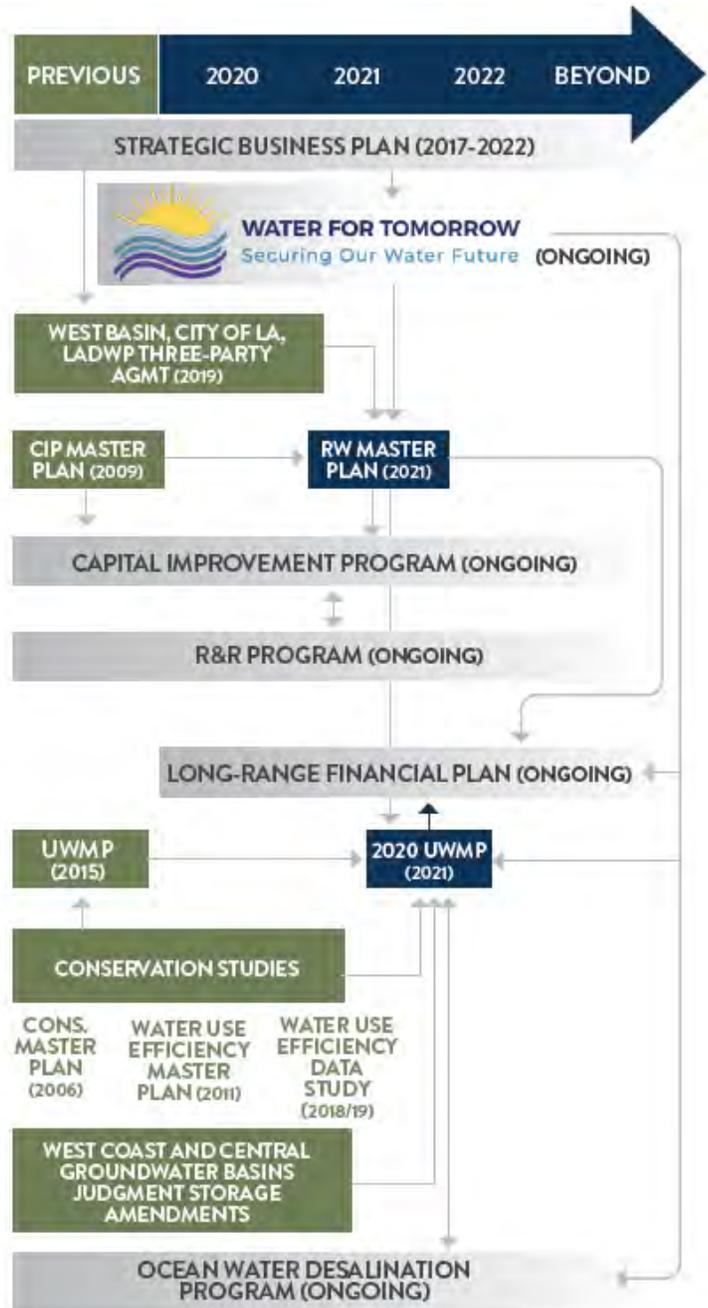
West Basin previously prepared UWMPs 2005, 2010, and 2015 to comply with the Urban Water Management Planning Act originally created in 1983¹. The 2020 UWMP and 2021 WSCP serve as an update to the most recently adopted 2015 UWMP and comply with new requirements and regulations. In addition to completing the 2020 UWMP and 2021 WSCP, West Basin is currently updating its Recycled Water Master Plan (RWMP) and implementing its Capital Improvement Program, Rehabilitation and Replacement (R&R) plan, Long-Range Financial Plan, Strategic Business Plan, Water for Tomorrow Program, and Ocean Water Desalination Program. **Figure 1-1** shows previous and ongoing planning efforts and their relation to the 2020 UWMP update and the 2021 WSCP.

¹ The requirements for UWMPs are found in two sections of California Water Code, [§10610-10656](#) and [§10608](#). Every urban water supplier that either provides over 3,000 acre-feet of water annually, or serves more than 3,000 urban connections is required to submit an UWMP.

West Basin also relied on many key planning documents that aided in the preparation of this WSCP, including:

- Metropolitan’s 2020 WSCP
- Metropolitan’s Draft 2020 UWMP
- Metropolitan’s 2020 Integrated Resources Plan (under development)
- West Basin’s Water Use Efficiency Study
- Central Basin Watermaster Report 2019
- West Basin Watermaster Report 2019
- WRD’s Engineering and Survey Report 2020
- West Basin’s 2015 Drought Rationing Plan
- West Basin’s Draft 2021 Recycled Water Master Plan
- DWR’s 2019 State Water Project Delivery Capability Report
- WRD’s Regional Groundwater Monitoring Report Water Year 2019–2020

Figure 1-1. Previous and Ongoing Planning Efforts



2 WATER SHORTAGE CONTINGENCY PLAN

Background Information

This chapter discusses West Basin’s service area, water supplies, and its relationship with Metropolitan Water District of Southern California (Metropolitan).

West Basin is a wholesale water agency in southwestern Los Angeles County that provides imported drinking water to 17 cities and unincorporated areas of Los Angeles County throughout its 185-square-mile service area.

In addition, West Basin supplies recycled water to more than 450 customer sites for municipal, commercial, and industrial use, as well as for injection into the West Coast Basin Seawater Barrier to protect against seawater intrusion and replenish the West Coast Groundwater Basin (West Coast Basin). West Basin also supplies imported water to the Dominguez Gap Barrier to protect against seawater intrusion and replenish the West Coast Basin.

IN THIS SECTION

- Background Information
- Relationship with Metropolitan

2.1 General Description

An innovative public agency, West Basin is a recognized leader in the production of recycled water, conservation, and educational programs. West Basin was established by a vote of the people in 1947 to help mitigate over pumping in the West Coast Basin by providing the growing region with imported water. West Basin became a member agency of Metropolitan in 1948 to purchase, on a wholesale level, potable water imported from the Colorado River. Today, West Basin supplies imported water to local municipalities, investor-owned utilities, and one county waterworks district as a means of supplementing local water resources.

West Basin and its retail agencies operating within West Basin's service area develop local supplies, including groundwater, brackish desalination, and recycled water. In addition, a blend of recycled and imported water is injected into the West Coast Basin Barrier and the Dominguez Gap Barrier to protect local groundwater supplies from seawater contamination and replenish the aquifer.

West Basin is the fourth-largest member agency of Metropolitan, which makes its participation on the Metropolitan Board of Directors critical to representing the interests of West Basin's retail agencies on regional water issues. West Basin's Board of Directors appoints two representatives to serve on the 38-member Metropolitan Board of Directors.

West Basin is governed by an elected, five-member Board of Directors, which guides the mission and policy of West Basin. Each director is elected to serve four-year terms and represent one of five divisions, totaling over 800,000 residents living in the West Basin service area. Current West Basin directors are shown in **Figure 2-1**, and the cities and communities within their associated divisions are described below.

Figure 2-1. West Basin Board of Directors



Harold C. Williams
Division I



Gloria D. Gray
Division II



Desi Alvarez
Division III



Scott Houston
Division IV



Donald L. Dear
Division V

Division I: Cities of Carson, Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills Estates, Rolling Hills, and unincorporated Los Angeles County areas of Rancho Dominguez.

Division II: City of Inglewood and unincorporated Los Angeles County areas of Lennox, South Ladera Heights, West Athens, and Westmont.

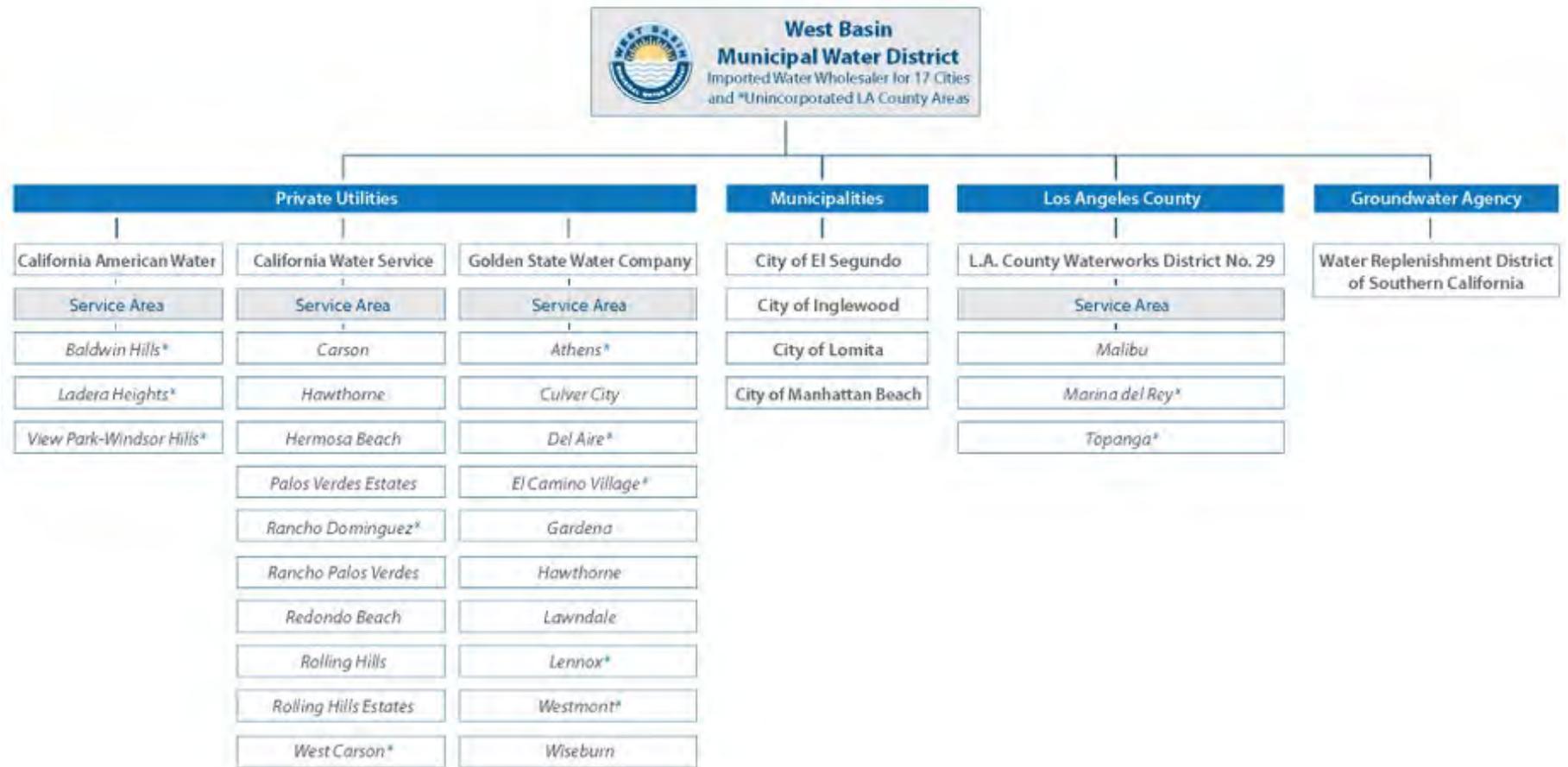
Division III: Cities of Hermosa Beach, Lomita, Manhattan Beach, Redondo Beach, and a portion of Torrance.

Division IV: Cities of Culver City, El Segundo, Malibu, and West Hollywood, and unincorporated Los Angeles County areas of Del Aire, Lennox, Marina del Rey, North Ladera Heights, Topanga, View Park, Windsor Hills, and Wiseburn.

Division V: Cities of Gardena, Hawthorne, Lawndale, and unincorporated Los Angeles County area of El Camino Village.

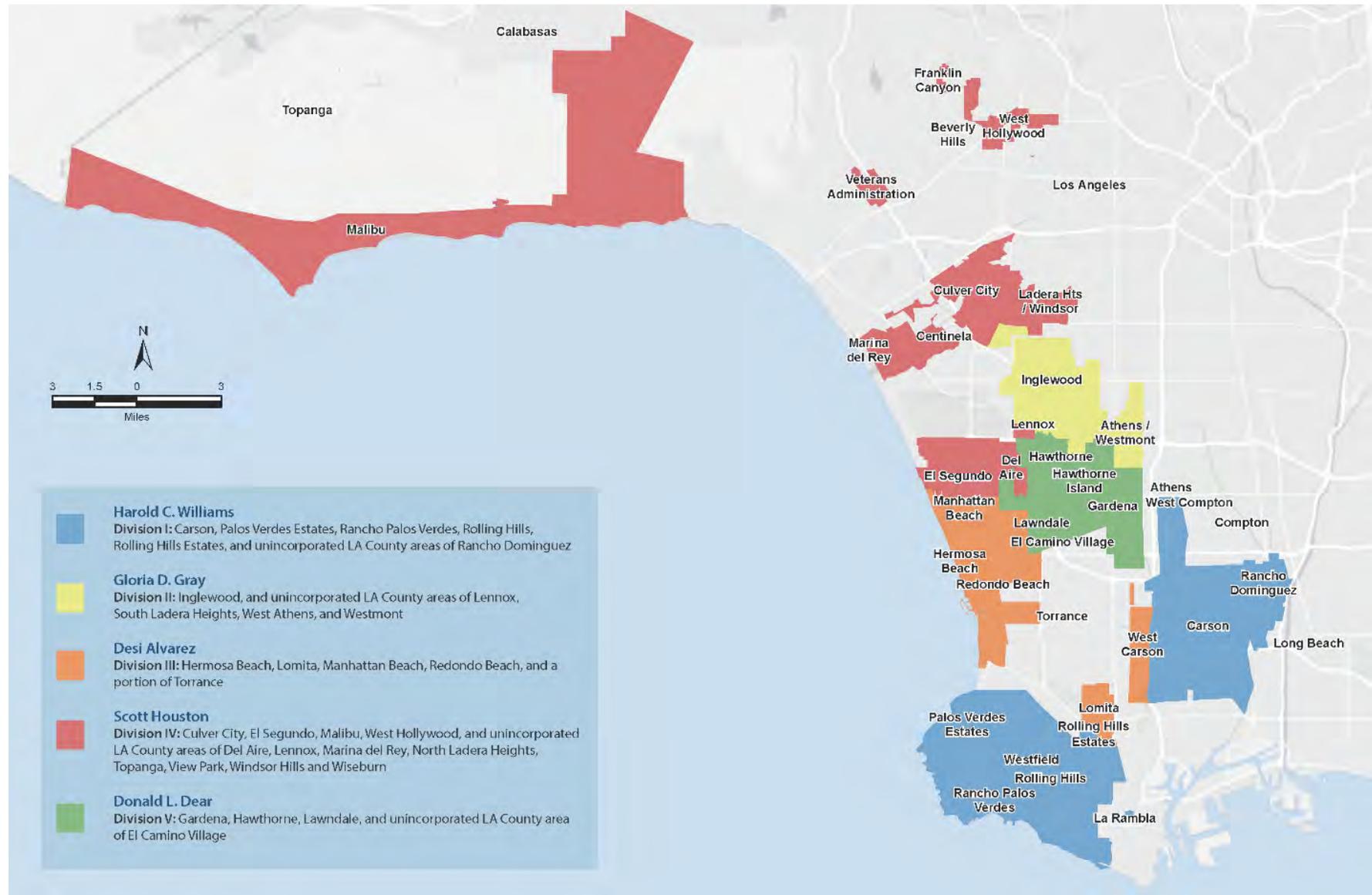
Today, West Basin provides wholesale potable water to three investor-owned utilities, four municipalities, one county waterworks district, and one groundwater agency. The relationship between West Basin and its retail agencies is illustrated in **Figure 2-2**. A map of West Basin's service area as delineated by Director divisions is shown in **Figure 2-3**.

Figure 2-2. West Basin Retail Agencies



Source: West Basin.

Figure 2-3. West Basin Service Area



Source: West Basin.

In the major drought of the late 1980s and early 1990s, West Basin's visionary Board of Directors led the agency in developing new local water supplies, including wastewater recycling for irrigation and industrial use, and implementing effective conservation and water efficiency programs.

Today, West Basin's Water for Tomorrow Program helps guide West Basin's approach to ensuring the reliability of the region's water future by focusing on the following principles:

- Protect West Basin's existing water supply
- Diversify and augment the water supply portfolio
- Innovate to prepare for the future

West Basin continuously demonstrates its commitment to being an industry leader by exploring new methods and innovative technologies to enhance the region's water supply, with the mission to "provide a safe and reliable supply of high-quality water to the communities we serve." West Basin ensures water reliability for service area residents and businesses through balanced and affordable supply diversification: maximizing water recycling, expanding water efficiency and conservation efforts, desalting brackish groundwater, and evaluating desalinated ocean water.

West Basin is dedicated to serving all of its communities by seeking increased reliability of imported water, more opportunities for groundwater projects, and additional exploration of alternative local water supplies such as both potable and non-potable water reuse and desalination.

West Basin currently manages a diverse water supply portfolio that includes imported water from Northern California and the Colorado River, locally produced recycled water, desalted groundwater, and conserved water. Additionally, West Basin is researching ocean water desalination as a potential future drought-proof supply of drinking water. The water supply types that West Basin provides to its retail agencies are detailed in **Table 2-1**.

Table 2-1. Types of Water Supplied to West Basin Retail Agencies

RETAIL AGENCY	POTABLE WATER	RECYCLED WATER	DESALTED GROUNDWATER
City of El Segundo	✓	✓	
City of Inglewood	✓	✓	
City of Lomita	✓		
City of Manhattan Beach	✓	✓	
LA County Waterworks District 29	✓		
Cal American Water	✓		
California Water Service	✓	✓	✓
Golden State Water Company	✓	✓	
Water Replenishment District	✓	✓	

Many of West Basin's retail agencies also pump groundwater supplies from the West Coast Basin to help meet their demands. In addition, California Water Service delivers a small amount of water from West Basin's C. Marvin Brewer Desalter, which treats brackish groundwater from the West Coast Basin for drinking water use.

Relationship to Metropolitan Water District of Southern California

Metropolitan is the largest water wholesaler for domestic and municipal uses in California, serving approximately 19 million customers. Metropolitan provides wholesale imported water supplies to 26 member-agency cities and water districts in six Southern California counties. Its service area covers the Southern California coastal plain, extending approximately 200 miles along the Pacific Ocean, from the City of Oxnard in the north to the international boundary with Mexico in the south. This encompasses 5,200 square miles and includes portions of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura counties. Approximately 85% of the population from the aforementioned counties reside within Metropolitan's boundaries.

Metropolitan is governed by a Board of Directors composed of 38 appointed individuals, with a minimum of one representative from each of Metropolitan's 26 member agencies. The allocation of directors and voting rights are determined by each agency's assessed valuation. Each member of the Board is entitled to cast one vote for each \$10 million of assessed valuation of property taxable for district purposes, in accordance with Section 55 of the Metropolitan Water District Act.¹ Directors can be appointed through the chief executive officer of the member agency or by a majority vote of the governing board of the agency. Directors are not compensated by Metropolitan for their service.

Metropolitan is responsible for importing water into the region through its operation of the Colorado River Aqueduct and its contract with the State of California for State Water Project supplies. Major imported water aqueducts bringing water to Southern California. Member agencies receive water from Metropolitan through various delivery points and pay for service through a rate structure made up of volumetric rates, capacity charges, and readiness-to-serve charges. Every April, member agencies provide estimates of imported water demand to Metropolitan regarding the amount of water they anticipate they will need to meet their demands for the next five years. Metropolitan's approach to addressing water shortages is described in Section 2.3, and Metropolitan's Water Supply Allocation Plan (WSAP) is included in Metropolitan's Water Shortage Contingency Plan (WSCP) presented in **Attachment A**.

2.1.1 Overview of West Basin and Metropolitan

In 1948, West Basin became a member agency of Metropolitan and, as such, began wholesaling imported water from the Colorado River. Today, West Basin is the fourth-largest member agency of Metropolitan and is allowed two representatives on the Metropolitan Board of Directors. In 2021, Gloria D. Gray and Harold C. Williams served as West Basin's designated representatives to the Metropolitan Board, with Director Gray serving in the role of Metropolitan Board president. West Basin's participation on the Metropolitan Board is critical to representing West Basin's retail agency interests on regional water issues, especially with regard to imported water supplies. **Figure 2-4** illustrates the relationship West Basin has with Metropolitan and its customer agencies to provide the region with diversified and integrated water supplies.

As a member agency of Metropolitan, West Basin works closely with Metropolitan and its other member agencies to plan and implement various water resources and water efficiency programs throughout the region. Metropolitan has long supported West Basin's efforts to diversify its local water resources through the development of recycled water, groundwater augmentation, and conservation programs. Metropolitan's investment in West Basin's local programs has significantly increased the water supply reliability of coastal Los Angeles County by increasing sustainable water supplies and reducing demand on imported water supplies.

¹ More information is available online: <http://www.mwdh2o.com/WhoWeAre/MWDAct>

Figure 2-4. West Basin Service Area Water Supplies



2.2 Relationship with Metropolitan Water Shortage Planning

The WSCP is designed to be consistent with Metropolitan’s Water Shortage and Demand Management (WSDM) Plan, Metropolitan’s WSAP, West Basin’s Drought Rationing Plan, and other regional and local emergency response plans. West Basin’s DRP is available in **Attachment B**.

Metropolitan’s WSAP and West Basin’s DRP are integral to the WSCP’s shortage response strategy. Should Metropolitan determine that supply augmentation and demand reduction actions are insufficient to meet projected supply needs, it would declare a shortage exists and assign a water-shortage level needed to meet West Basin’s service area’s reduced demands. Likewise, West Basin would need to further assess the shortage conditions within its service area to meet retail agency demands and, as required, activate the West Basin DRP to invoke appropriate water shortage level conditions (described further in **Section 2.2.3**).

2.2.1 Metropolitan Water Surplus and Drought Management Plan

Annually, Metropolitan evaluates the levels of available supplies and water in storage to determine the appropriate management stage, as outlined in the WSDM Plan. Each stage is associated with specific resource management actions to avoid extreme shortages when possible and minimize adverse impacts to retail customers should an extreme shortage occur. The sequencing outlined in the WSDM Plan reflects anticipated responses to Metropolitan’s existing and expected resource mix.

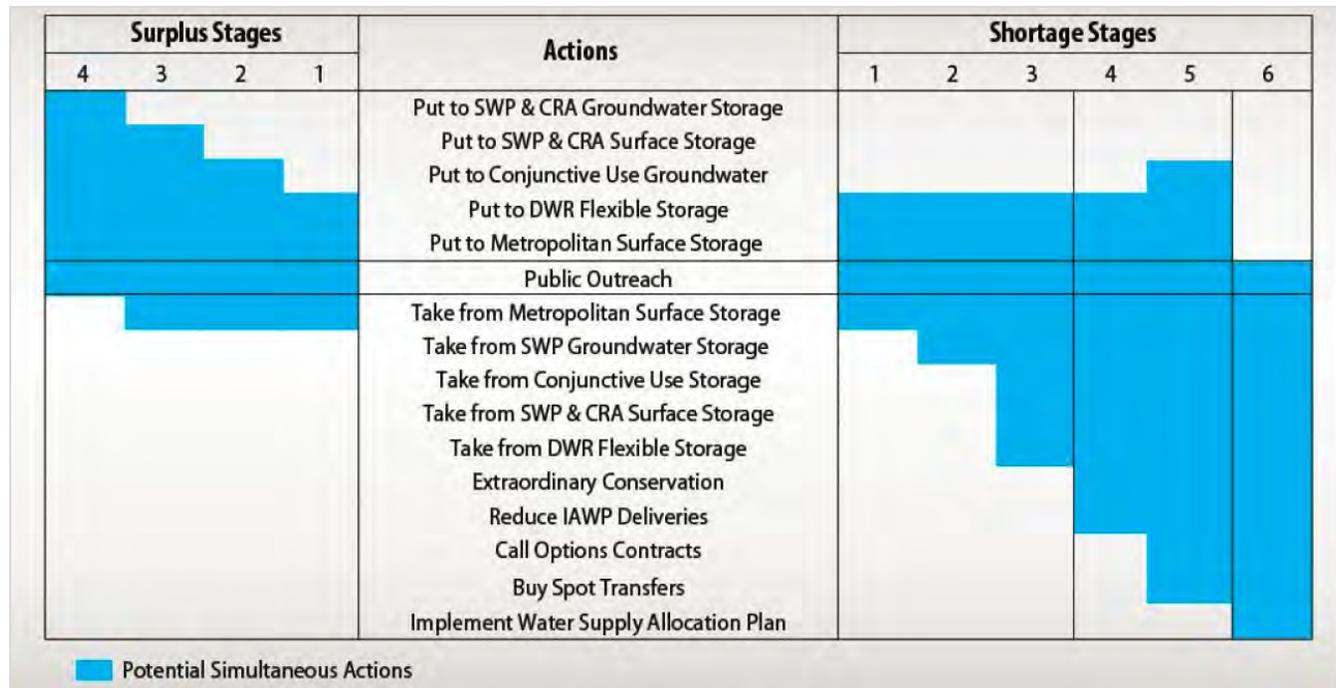
Surplus stages occur when net annual deliveries can be made to water storage programs. Under the WSDM Plan, there are four surplus management stages that provide a framework for actions to take for surplus supplies. Deliveries in Diamond Valley Lake and in State Water Project terminal reservoirs continue through each surplus stage, provided there is available storage capacity. Withdrawals from Diamond Valley Lake for regulatory purposes or to meet seasonal demands may occur in any stage.

The WSDM Plan distinguishes between shortages, severe shortages, and extreme shortages, as defined below:

- **Shortage:** Metropolitan can meet full-service demands and partially meet or fully meet interruptible demands using stored water or water transfers as necessary (**Stages 1, 2, and 3**).
- **Severe Shortage:** Metropolitan can meet full-service demands only by using stored water, using transfers, and possibly calling for extraordinary conservation (**Stages 4 and 5**).
- **Extreme Shortage:** Metropolitan must allocate available supply to full-service customers (**Stage 6**).

There are six shortage management stages to guide resource management activities. These stages are defined by shortfalls in imported supply and water balances in Metropolitan’s storage programs. When Metropolitan must make net withdrawals from storage to meet demands, it is considered to be in a shortage condition. **Figure 2-5** gives a summary of actions under each surplus and shortage stage when an allocation plan is necessary to enforce mandatory cutbacks. The goal of the WSDM Plan is to avoid Stage 6, an extreme shortage.

Figure 2-5. Surplus and Shortage Stages, Anticipated Actions, and Supply Declarations



Source: Metropolitan, WSDM Plan, 1999
 Note: IAWP = Interim Agricultural Water Program.

Metropolitan’s Board of Directors adopted a Water Supply Condition Framework in June 2008 to communicate the urgency of the region’s water supply situation and the need for further water conservation practices (Metropolitan Water District of Southern California, June 2008). The framework has four conditions, each calling for increasing levels of conservation.

Descriptions of the four conditions are listed below:

- **Baseline Water Use Efficiency:** ongoing conservation, outreach, and recycling programs to achieve permanent reductions in water use and build storage reserves
- **Condition 1 Water Supply Watch:** local agency voluntary dry-year conservation measures and use of regional storage reserves
- **Condition 2 Water Supply Alert:** regional call for cities, counties, member agencies, and retail water agencies to implement extraordinary conservation through drought ordinances and other measures to mitigate use of storage reserves
- **Condition 3 Water Supply Allocation:** implementation of Metropolitan’s WSAP

As noted in Condition 3, should supplies become limited to the point where imported water demands cannot be met, Metropolitan would allocate water through the WSAP (Metropolitan Water District of Southern California, May 2021) (Metropolitan Water District of Southern California, May 2021).

2.2.2 Metropolitan Water Supply Allocation Plan

Metropolitan's imported supplies have been impacted by a number of water supply challenges, as noted earlier. In the case of extreme water shortage within its service area, Metropolitan may determine it is necessary to implement its WSAP.

Metropolitan's Board of Directors adopted the WSAP in February 2008 to fairly distribute a limited amount of water supply, applying it through a detailed method to reflect a range of local conditions and needs of the region's retail water consumers. The WSAP includes the specific formula for calculating member agency supply allocations and the key implementation elements needed for administering an allocation. Metropolitan's WSAP is the foundation for the urban water shortage contingency analysis required under CWC Section 10632 and is part of Metropolitan's 2020 UWMP (Metropolitan Water District of Southern California, May 2021).

Metropolitan's WSAP was developed in consideration of the principles and guidelines in Metropolitan's 1999 WSDM Plan, with the core objective of creating an equitable "needs-based allocation." (Metropolitan Water District of Southern California, August 1999) The WSAP's formula seeks to balance the impacts of a shortage at the retail level while maintaining equity on the wholesale level for shortages of Metropolitan supplies up to 50%. The formula takes into account a number of factors, such as the impact on retail customers, growth in population, changes in supply conditions, investments in local resources, demand-hardening aspects of water conservation savings, recycled water, extraordinary storage and transfer actions, and groundwater imported water needs.

The formula is calculated in three steps—the first two steps involve standard computations, while the third step contains a specific method developed for the WSAP.

Step 1: Base Period Calculations

The first step in calculating a member agency's water supply allocation is to estimate its water supply and demand using a historical base period with established water supply and delivery data. The base period for each of the different categories of supply and demand is calculated using data from the two most recent non-shortage years.

Step 2: Allocation Year Calculations

The next step in calculating the member agency's water supply allocation is estimating water needs in the allocation year. This is done by adjusting the base period estimates of retail demand for population growth and changes in local supplies.

Step 3: Supply Allocation Calculations

The final step is calculating the water supply allocation for each member agency based on the allocation year water needs identified in Step 2.

Although Metropolitan's 2020 UWMP forecasts that it will be able to meet projected imported water demands throughout the projected period from 2020 to 2045, uncertainty in supply conditions can result in Metropolitan needing to implement its WSAP to preserve dry-year storage and curtail demands (Metropolitan Water District of Southern California, May 2021).

To implement the WSAP, Metropolitan's Board of Directors makes a determination on the level of the regional shortage, based on specific criteria. This typically happens in April. The criteria used by Metropolitan includes current levels of storage, estimated water supply conditions, and projected imported water demands. The allocations, if deemed necessary, go into effect in July of the same year

and remain in effect for a 12-month period. The schedule is made at the discretion of Metropolitan's Board of Directors.

2.2.3 West Basin Drought Rationing Plan

West Basin continues its water reliability strategy of increasing local control over its water supplies within its service territory by maximizing water use efficiency, the use of recycled water, and through public outreach and education programs. This successful effort has drastically reduced its demand on potable water, however, the region still relies on water from Northern California and the Colorado River for nearly two-thirds of our supply. This reliance on hydrologically-dependent supplies leaves the region vulnerable to drought and the long-term impacts of changing climate patterns as well as other types of emergency shortages, such as earthquake or water quality impacts to local groundwater supplies used by West Basin retail agencies.

Drought periods in Southern California are happening more frequently and with greater severity. While Metropolitan currently projects 100% supply reliability, when Metropolitan does not have access to the supplies necessary to meet total demands and has to allocate shortages in supplies to West Basin and its other member agencies, it enacts the Water Supply Allocation Plan as a demand management tool to extend the availability of storage reserves.

On March 23, 2015, the West Basin Board adopted an update to the "Water Shortage Allocation Plan" and changed the name to Drought Rationing Plan (DRP). When Metropolitan implements the WSAP, the Drought Rationing Plan is necessary for two primary reasons: 1) to help achieve MWD's (and the Governor's 2015) conservation goal; and 2) equitably recover any financial penalties from our customer agencies should West Basin fall short of the goal. The DRP includes a "regional penalty assessment" policy that only assesses financial penalties to West Basin's customer agencies if West Basin itself incurs penalties.

As amended in 2018, and effective in 2019, the California Water Code requires urban water suppliers to adopt a water shortage contingency plan as part of its urban water management plan as specified (Section 10632). West Basin has primarily utilized the DRP to implement emergency conservation measures, and responses to drought and regional waters supply shortages. Through these efforts, West Basin's retail agencies and the communities served by West Basin have relied on the DRP as a guiding document. West Basin may update the Drought Rationing Plan and it will always be accessible at www.westbasin.org.

3 WATER SHORTAGE CONTINGENCY PLAN

Water Shortage Contingency Preparation and Response

West Basin’s Water Shortage Contingency Plan is a detailed guide of how West Basin intends to act in the case of an actual water-shortage condition.

The WSCP anticipates a water supply shortage and provides preplanned and prescribed guidance for managing and mitigating a shortage. Regardless of the reason for the shortage, the WSCP uses adequate details of demand reduction and supply augmentation actions that are structured to match varying degrees of shortage to ensure relevant stakeholders, including West Basin’s retail agencies, understand what to expect during a water shortage situation.

IN THIS SECTION

- Supply Reliability
- Annual Assessments
- Shortage Levels
- Shortage Response Actions
- Communications Protocol
- Compliance
- Legal Authorities
- Financial Consequences
- Monitoring and Reporting
- WSCP Refinement Procedures
- Plan Adoption

3.1 Water Supply Reliability Analysis

Per Water Code Section 10632 (a)(1), the WSCP shall provide an analysis of water supply reliability conducted pursuant to Water Code Section 10635 and an analysis of the key issues that may create a shortage condition when looking at West Basin's water supply portfolio. Understanding water supply reliability, factors that could contribute to water supply constraints, availability of alternative supplies, and what effect these have on meeting customer demands provides West Basin with a solid basis on which to develop appropriate and feasible response actions in the event of a water shortage.

In the 2020 UWMP, West Basin conducted a Water Reliability Assessment to compare the total water supply sources available with long-term projected water use over the next 25 years, in five-year increments, for a normal water year, a single dry water year, and a drought lasting five consecutive water years. West Basin also conducted a Drought Risk Assessment to evaluate a drought period that lasts five consecutive water years, starting in 2021. An analysis of both assessments is presented in West Basin's 2020 UWMP Chapter 7 – Water Service Reliability and Drought Risk Assessment (West Basin, 2021). The analysis concluded that sufficient supplies are available from Metropolitan under all scenarios considered.

West Basin receives imported water from Metropolitan through connections to Metropolitan's regional distribution system. Although pipeline and connected capacity do not guarantee the availability of water, they do guarantee the ability to convey water when it is available to the Metropolitan distribution system. The primary constraint on the available of water supplies has been in severe and prolonged drought conditions. West Basin's diversified supply and conservation measures combined with Metropolitan's supply reliability investments enable West Basin to meet projected demands in multiple-dry years. Metropolitan projects the ability to meet projected West Basin imported water demands under normal, single-dry year, and multiple-dry year conditions (Metropolitan Water District of Southern California, March 2021). As a result, there are no anticipated shortages under the single-dry year or multiple-dry year scenarios and West Basin service area demands are assumed to be unconstrained in each reliability scenario.

3.2 Annual Water Supply and Demand Assessment Procedures

Per Water Code Section 10632.1, West Basin will conduct an Annual Assessment of Water Supply and Demand pursuant to subdivision (a) of Section 10632 and by July 1 of each year, beginning in 2022. West Basin will submit an annual water shortage assessment with information for anticipated shortage, triggered shortage response actions, compliance and enforcement actions, and communication actions consistent with West Basin's WSCP.

This section documents the decision-making process required for formal approval of West Basin's Annual Assessment of water supply reliability each year, the key data inputs, and the methods used to evaluate the water system reliability for the coming year, considering it would be a dry year.

3.2.1 Decision-Making Process

West Basin is currently developing a comprehensive demand forecasting model that will help inform its Annual Assessment. The model will consider a variety of local and regional conditions to assess overall water supply reliability and determine whether a shortage condition exists or is expected the following year.

As a wholesaler of imported water from Metropolitan, West Basin's water supply reliability is tied directly to the reliability of Metropolitan's imported supplies. Accordingly, West Basin will carefully consider information that is provided by Metropolitan in its Annual Assessment. The information West Basin receives from its municipal and private retail water suppliers on historical demand-side data and

projected annual demands for the upcoming year will be balanced based on Metropolitan's projected supply-side data available to meet requested demands, as outlined in the WSDM Plan (Metropolitan Water District of Southern California, August 1999).

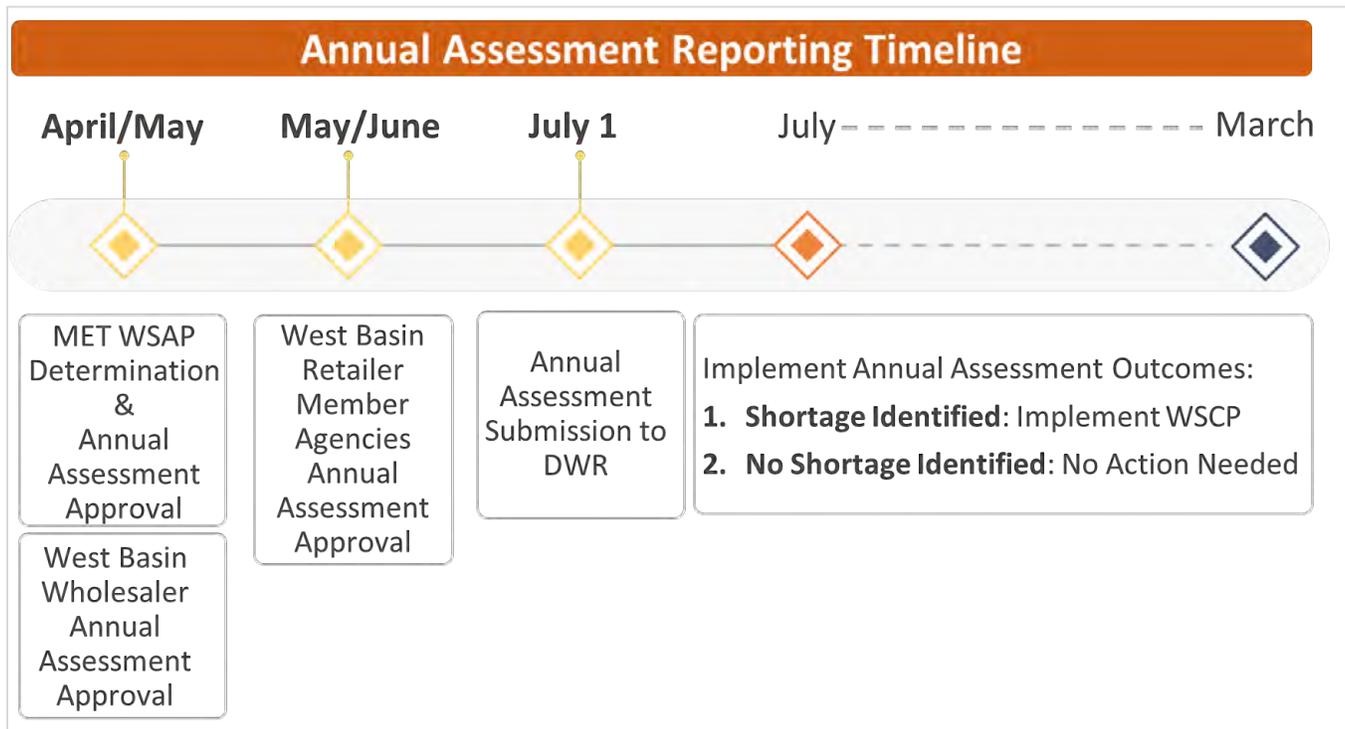
On a monthly basis, West Basin staff also provides the Board of Directors with a Metropolitan-generated report of current statewide water supply conditions. The report includes information on key water supply factors such as storage, precipitation, snowpack, and State Water Project allocations. The monthly report serves as an additional source of information for assessing the health of the region's imported water supply.

The following decision-making process describes the steps that West Basin will take to formally approve the Annual Assessment determination of water supply reliability each year. **Figure 3-1** below also illustrates the overall approach and basic timeline of the decision-making process.

1. West Basin staff and the Board of Directors will monitor statewide water supply conditions via Metropolitan's monthly water supply report. Concurrently, West Basin staff will update the demand forecasting model with the most recent data received from its cities and private retail water agencies. As a water wholesaler, West Basin is dependent on its retailers to provide accurate demand estimates to determine water demands in the service area. The forecasting model will be revisited and updated throughout the year as needed. Any major changes to the model's inputs or assumptions will be conveyed to West Basin's executive team and Board members at committee or Board meetings for further discussion as needed.
2. According to Metropolitan's Annual Assessment Decision-Making Timeline, Metropolitan staff will make a determination on its Assessment during April or May. Based on the results of that determination and in conjunction with West Basin's ongoing demand modeling, West Basin staff will develop its own Annual Assessment determination and any associated shortage response actions that may be needed to address an anticipated shortage condition.
3. In June of each year, West Basin staff will provide an initial, updated Annual Assessment at its monthly Water Policy & Legislation Committee meeting. The staff presentation will provide an overview of current supply and demand conditions and will summarize whether the findings of the Assessment necessitate the implementation of new or updated shortage response actions. During the committee meeting, staff will answer questions and solicit feedback from Board members about the Annual Assessment determination.
4. Following the committee meeting, staff will consider all feedback received by the Board for incorporation into an updated version of the Annual Assessment. The updated Annual Assessment will then be presented to the full Board of Directors at its June Board meeting for final approval.
5. Once approved, West Basin staff will submit the Annual Assessment to DWR by the July 1 submission deadline each year, starting July 1, 2022.

More information on this decision-making process and the basis for the Annual Assessment prepared for 2021 is also available in West Basin's 2020 UWMP Sections 4, 6, and 7.

Figure 3-1. Annual Assessment Reporting Timeline



3.2.2 Data and Methods

The following paragraphs document the key data inputs and methods that are used to evaluate the water system reliability for the coming year, while considering that the year to follow would be considered dry, as defined below:

Evaluation Criteria

In the 2020 UWMP, West Basin conducted an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment compares the total water supply sources available to the water supplier with the long-term total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and a drought lasting five consecutive water years. This assessment was based on the West Basin service area, water sources, water supply reliability, and water use, as described in CWC Section 10631, including available data from state, regional, or local agency population, land use development, and climate change projections within the service area. This same locally applicable evaluation criteria will be relied on for completing the Annual Assessment.

Water Supply

West Basin supplies to be used to meet retail demands consist of imported water from Metropolitan and recycled water for non-potable uses. In addition, a majority of West Basin retail agencies pump groundwater to meet a portion of their demands. The amount of groundwater pumping is limited by available rights—adjudicated rights and other additional pumping rights defined in annual reports from the Water Replenishment District (WRD).

Unconstrained Customer Demand

The WSCP and Annual Assessment define unconstrained demand as expected water use before any projected shortage response actions that may be taken under the WSCP. Unconstrained demand is distinguished from observed demand, which may be constrained by preceding, ongoing, or future actions, such as emergency supply allocations during a multiyear drought. WSCP shortage response actions to constrain demand are inherently extraordinary; routine activities, such as ongoing conservation programs and regular operational adjustments are not considered constraints on demands.

To estimate unconstrained demands for 2022 and the following years as required by the CWC, West Basin would apply a similar method as described in West Basin's 2020 UWMP Section 4.1, which considered "normal" retail demand across the West Basin service area (which adjusts for weather and drought restrictions), growth, conservation, and groundwater pumping.

Planned Water Use for Current Year Considering Dry Subsequent Year

Water Code Section 10632 (a)(2)(B)(ii) requires the Annual Assessment to determine "current year available supply, considering hydrological and regulatory conditions in the current year and one dry year." The Annual Assessment will include two separate estimates of West Basin's annual water supply and unconstrained demand using: 1) current-year conditions and 2) assumed dry-year conditions.

The "single dry year" is characterized to resemble a year in which conditions reflect the lowest water supply available to West Basin. West Basin would apply the same single-dry-year assumptions used in West Basin's 2020 UWMP Section 7.2, which assumes:

- Imported water from Metropolitan can meet West Basin demands unless Metropolitan has implemented its WSAP. If the Metropolitan WSAP is implemented, West Basin would pass along the demand restrictions to its customers.
- Groundwater availability is based on adjudicated pumping rights and any carryover or other additional pumping rights defined in annual reports from the WRD.
- Recycled water deliveries would be similar to the previous year.

Infrastructure Considerations

Given that Metropolitan directly supplies water to West Basin retail agencies, the system improvements for supply reliability is the responsibility of Metropolitan. Plans for system upgrades are prepared, adopted, and constructed according to the Metropolitan Capital Investment Plan (Metropolitan Water District of Southern California, 2020). The Annual Assessment provided by Metropolitan to West Basin, and subsequently from West Basin to its retail agencies, will include consideration of any infrastructure issues that may pertain to near-term water supply reliability. This will include repairs, construction, and environmental mitigation measures that may temporarily constrain capabilities, as well as any new projects that may add to system capacity.

Other Factors

For the Annual Assessment provided by Metropolitan to West Basin and then West Basin to its retail agencies, any known issues related to water supply reliability (i.e., water quality impacts) would be considered for their potential effects.

3.3 Six Standard Water Shortage Levels

Per Water Code Section 10632 (a)(3)(A), West Basin must include the six standard water shortage levels defined at the state level, which represent shortages from the normal reliability as determined in the West Basin's Annual Assessment. The shortage levels have been standardized to provide a consistent regional and statewide approach to conveying the relative severity of water supply shortage conditions. This is an outgrowth of the severe statewide drought of 2012–2016 and the widely

recognized public communication and state policy uncertainty associated with the many varied local definitions of water shortage.

The six levels correspond to progressively increasing estimated shortage conditions as compared to the normal reliability condition (0% shortage) and align with the response actions West Basin would implement to meet the severity of an impending shortage as outlined in West Basin’s 2015 Drought Rationing Plan.

Table 3-1. Wholesaler: Water Shortage Contingency Plan Levels (DWR Table 8-1)

SHORTAGE LEVEL	PERCENT SHORTAGE RANGE	SHORTAGE RESPONSE ACTIONS (NARRATIVE DESCRIPTION)
0	0% (Normal)	During non-shortage conditions, West Basin develops, implements, and provides cost-effective water-efficiency and conservation programs to local communities in its service area to help save water and increase local water supply reliability. In addition, West Basin educates and engages its community about important water issues through outreach and education programs. Together, these programs highlight the importance of adopting a Water Conservation as a Way of Life mindset as a means of supporting ongoing water supply reliability throughout the region.
1	Up to 10%	At this shortage level, West Basin will implement one or more of the following shortage response actions: - Call for voluntary retailer water-use reductions - Call for voluntary retailer use of non-imported potable sources - Implement additional conservation/water-efficiency programs - Deploy public outreach and communications measures - Implement mandatory retailer water-use reductions (in West Basin’s DRP)
2	11% to 20%	At this shortage level, West Basin will implement and expand one or more of the shortage response actions listed for Stage 1 to achieve demand reduction target of 20%.
3	21% to 30%	At this shortage level, West Basin will implement and expand one or more of the shortage response actions listed for Stage 1 to achieve demand reduction target of 30%.
4	31% to 40%	At this shortage level, West Basin will implement and expand one or more of the shortage response actions listed for Stage 1 to achieve demand reduction target of 40%.
5	41% to 50%	At this shortage level, West Basin will implement and expand one or more of the shortage response actions listed for Stage 1 to achieve demand reduction target of 50%.
6	>50%	At this shortage level, West Basin will implement and expand one or more of the shortage response actions listed for Stage 1 to achieve demand reduction target of greater than 50%

3.4 Shortage Response Actions

Water Code Section 10632 (a)(4) requires the WSCP to specify shortage response actions that align with the defined shortage levels. West Basin has defined specific shortage response actions that align with the defined shortage levels in **Table 3-1** shown above and **Table 3-2** presented below. These shortage response actions were developed with consideration for the customer-class or water use-specific demand reduction initiatives, and increasingly stringent water-use prohibitions, supply augmentation responses, and system infrastructure and operational changes.

3.4.1 Demand Reduction

The demand reduction actions that would be implemented to address shortage levels are described in **Table 3-2** (DWR Table 8-2). This table indicates which actions align with specific defined shortage levels and estimates the extent to which that action would reduce the gap between supplies and demands. This demonstrates that the chosen suite of shortage response actions can be expected to deliver the outcomes necessary to meet the requirements of a given shortage level. This table also identifies the enforcement action, if any, associated with each demand reduction measure.

Table 3-2. Demand Reduction Actions (DWR Table 8-2)

SHORTAGE LEVEL	DEMAND REDUCTION ACTIONS	HOW MUCH IS THIS GOING TO REDUCE THE SHORTAGE GAP?	ADDITIONAL EXPLANATION	PENALTY, CHARGE, OR OTHER ENFORCEMENT?
0	Offer Water Use Surveys	Not applicable – No shortage gap at this level	West Basin currently offers water-efficiency surveys through several of its conservation programs.	No
0	Provide Rebates on Plumbing Fixtures and Devices	Not applicable – No shortage gap at this level	West Basin provides a variety of device and irrigation rebates to its service area.	No
0	Provide Rebates for Landscape Irrigation Efficiency	Not applicable – No shortage gap at this level	West Basin provides a variety of device and irrigation rebates to its service area.	No
0	Provide Rebates for Turf Replacement	Not applicable – No shortage gap at this level	West Basin provides grass removal rebates in its service area.	No
0	Other	Not applicable – No shortage gap at this level	West Basin conducts regular public outreach and education activities to highlight the importance of conservation and water efficiency.	No
0	Other	Not applicable – No shortage gap at this level	West Basin promotes awareness of permanent statewide water waste prohibitions.	No
1	Expand Public Information Campaign	0 to 100% of shortage gap	Expand public outreach and education efforts to encourage residents and industries to reduce their water usage.	No
1	Provide Rebates on Plumbing Fixtures and Devices	0 to 100% of shortage gap	Provide additional or higher-amount rebates.	No
1	Provide Rebates for Landscape Irrigation Efficiency	0 to 100% of shortage gap	Provide additional or higher-amount rebates.	No
1	Provide Rebates for Turf Replacement	0 to 100% of shortage gap	Provide additional or higher-amount rebates.	No
1	Other	0 to 100% of shortage gap	Implement new conservation and water-efficiency programs.	No
1	Other	0 to 100% of shortage gap	Call for voluntary retailer supply shift to non-imported potable sources.	No
1	Other	0 to 100% of shortage gap	Call for voluntary retailer water-use reductions.	No
1	Implement or Modify Shortage Allocation to Retailers	0 to 100% of shortage gap	Implement DRP and as appropriate Drought Rate Structure or Surcharge.	Yes
2	Not Applicable	0 to 100% of shortage gap	At this shortage level, West Basin will implement and expand one or more of the shortage response actions listed for Stage 1 to achieve demand reduction target of 20%.	Dependent on demand reduction action

SHORTAGE LEVEL	DEMAND REDUCTION ACTIONS	HOW MUCH IS THIS GOING TO REDUCE THE SHORTAGE GAP?	ADDITIONAL EXPLANATION	PENALTY, CHARGE, OR OTHER ENFORCEMENT?
3	Not Applicable	0 to 100% of shortage gap	At this shortage level, West Basin will implement and expand one or more of the shortage response actions listed for Stage 1 to achieve demand reduction target of 30%.	Dependent on demand reduction action
4	Not Applicable	0 to 100% of shortage gap	At this shortage level, West Basin will implement and expand one or more of the shortage response actions listed for Stage 1 to achieve demand reduction target of 40%.	Dependent on demand reduction action
5	Not Applicable	0 to 100% of shortage gap	At this shortage level, West Basin will implement and expand one or more of the shortage response actions listed for Stage 1 to achieve demand reduction target of 50%.	Dependent on demand reduction action
6	Not Applicable	0 to 100% of shortage gap	At this shortage level, West Basin will implement and expand one or more of the shortage response actions listed for Stage 1 to achieve demand reduction target of greater than 50%	Dependent on demand reduction action

Note: One or more of the shortage response actions listed for Level 1 will be implement and expanded as the shortage levels increase.

3.4.2 Supply Augmentation

West Basin’s supply augmentation actions are described in **Table 3-3** (DWR Table 8-3). Metropolitan’s supply augmentation actions, described in Metropolitan’s 2020 WSCP, capture the supply augmentation actions that are relevant to West Basin. To the maximum extent possible, West Basin would coordinate with Metropolitan and its other member agencies on supply augmentation projects during normal and shortage periods to continue expanding water reliability for the entire region.

Table 3-3. Supply Augmentation and Other Actions (DWR Table 8-3)

SHORTAGE LEVEL	SUPPLY AUGMENTATION METHODS AND OTHER ACTIONS BY WATER SUPPLIER	HOW MUCH IS THIS GOING TO REDUCE THE SHORTAGE GAP?	ADDITIONAL EXPLANATION OR REFERENCE
1-6	Metropolitan Supply Augmentation	0 to 100% of shortage gap	Coordinate with Metropolitan and, if needed, purchase supplemental supplies from Metropolitan

3.4.3 Operational Changes

During water-shortage conditions, operations may be affected by supply augmentation or demand reduction responses undertaken by Metropolitan as the direct water supplier to West Basin retail agencies.

3.4.4 Additional Mandatory Restrictions

Water Code Section 10632 (a)(4)(D) calls for “additional, mandatory prohibitions against specific water-use practices that are in addition to state-mandated prohibitions and appropriate to the local conditions” to be included among the WSCP’s shortage response actions. West Basin has not specifically identified additional mandatory restrictions necessary at the time of this WSCP adoption. However, West Basin may deem additional restrictions, such as reducing water allocations in all categories to meet the available water supply beyond the DRP, as directed by the West Basin Board of Directors.

3.4.5 Emergency Response Plan (Hazard Mitigation Plan)

A catastrophic water shortage would be addressed according to the appropriate West Basin water-shortage level and response actions. It is likely that a catastrophic shortage would immediately trigger Shortage Level 6 response actions. West Basin would follow Metropolitan’s Emergency Response Plans in the event of a catastrophic supply interruption.

As described in Metropolitan’s 2020 Water Shortage Contingency Plan (Metropolitan Water District of Southern California, May 2021), Metropolitan has two Emergency Response Plans: 1) one dated March 2019 that has been in place long-term and is updated periodically, and 2) one dated September 2020 that was prepared pursuant to the requirements of the recently enacted America’s Water Infrastructure Act of 2018 (Metropolitan Water District of Southern California, 2020). The two plans work in conjunction. Together, Metropolitan’s Emergency Response Plans present Metropolitan’s organization and strategy for responding to emergencies caused by natural hazards, malevolent acts, or other unavoidable circumstances.

Metropolitan operates in accordance with the California Standardized Emergency Management System, the Incident Command System, and the National Incident Management System. The Emergency Response Plans describe the Emergency Response Organization and provide guidelines for evaluating and responding to an emergency situation and activating Incident Command Posts and the Emergency Operations Center. Although the plans provide a framework for emergency response,

they do not identify or discuss every potential situation or problem that may occur during an emergency. Metropolitan intends to continue updating the plans regularly.

3.4.6 Seismic Risk Assessment and Mitigation Plan

Per Water Code Section 10632.5, suppliers are required to assess seismic risk to water supplies as part of their WSCP. Since West Basin's primary potable water supply is provided by Metropolitan, and West Basin does not exclusively own or operate any of the imported water delivery infrastructure, West Basin refers to Metropolitan's seismic risk assessment and mitigation plan documented in Metropolitan's 2020 UWMP Appendix 9: Seismic Risk Assessment and Mitigation (Metropolitan, March 2021).

3.4.7 Shortage Response Action Effectiveness

For each specific Shortage Response Action identified in the plan, the WSCP also estimates the extent to which that action will reduce the gap between supply and demand identified in **Table 3-2** (DWR Table 8-2). To the extent feasible, West Basin has estimated percentage savings for the chosen suite of shortage response actions, which can be anticipated to deliver the expected outcomes necessary to meet the requirements of a given shortage level.

3.5 Communication Protocols

Prior to issuing a water shortage level declaration, West Basin would pursue outreach to inform cities and retail water providers in its service area of water shortage levels and definitions, targeted water savings for each drought stage, guidelines for retailers to follow during each stage, and sources of current information on West Basin supply and demand response status. Water savings guidelines are predicated on being equitable across the various water use sectors.

Timely and effective communication is a key element of the WSCP implementation. Per CWC Section 10632 (a)(5), West Basin has established communication protocols and procedures to inform customers, the public, interested parties, and local, regional, and state governments regarding any current or predicted shortages as determined by the Annual Assessment described pursuant to Section 10632.1; any shortage response actions triggered or anticipated to be triggered by the Assessment described pursuant to Section 10632.1; and any other relevant communications.

This section includes specific communication protocols that would be triggered to address each shortage level and the response actions implemented. This element focuses on communicating the water shortage contingency planning actions that can be derived from the results of the Annual Assessment. The Annual Assessment results would likely trigger a shortage based upon the decision-making process described in Section 3.2.1 of this WSCP and/or emergency communications protocols to address earthquakes, fires, infrastructure failures, civil unrest, and other catastrophic events. The type and degree of communication varies with each shortage level; thus, predefined and actionable communication protocols improve West Basin's ability to message necessary events. These communication protocols and procedures are summarized below, categorized by shortage levels.

Public information and outreach are important elements of West Basin's WSCP because the customer response to drought will ultimately dictate the amount of water savings achieved. West Basin's Public Information and Education department would lead public outreach and communications efforts in close coordination with its retail water supply agencies, who have direct means of communications with residential, commercial, industrial, and institutional customers. West Basin would also collaborate with Metropolitan and other Metropolitan member agencies to develop and implement regional public outreach initiatives that seek to promote and achieve Conservation as a Way of Life goals. West Basin would share information publicly and provide guidance to its retail agencies, closely monitoring water

user responses and attitudes toward both voluntary and mandatory response actions. Consistent customer outreach activities are required to successfully achieve targeted water savings during each drought stage.

West Basin has outlined a flexible water shortage response approach centered on voluntary compliance and mandatory restrictions implemented throughout a range of shortage levels. West Basin will communicate information about drought stage, targeted water savings, and water-saving guidelines that customers are expected to practice. Example drought specific information and materials to support public outreach in times of water shortage are included in **Attachment C**. West Basin is currently updating its Drought Outreach Plan to align with the WSCP's stated communication protocols.

Coordination with Retail Water Suppliers and Local Stakeholders

West Basin conveys critical information about droughts, water shortages, and other supply-related issues to its customer agencies, local governments, the general public, and other stakeholders in a number of ways. Regularly scheduled committee and partner meetings bring together representatives from retail agencies and other stakeholder organizations to discuss relevant topics and updates.

West Basin either leads or participates in stakeholder groups, including the following:

- Metropolitan Caucus Committee — monthly meetings
- West Basin Water Association — monthly meetings
- Water Use Efficiency Coordinators — quarterly meetings
- Public Information Officer Coordinators — quarterly meetings
- School/Education Coordination — regularly scheduled meetings
- Business/Industry Groups (e.g., Chambers of Commerce and other civic groups) — periodic meetings

Target Audiences

When communicating relevant information during critically dry or shortage periods, West Basin would focus its efforts on targeting the following stakeholder audiences in its service area:

- City staff
- Los Angeles County staff (for unincorporated areas served by West Basin)
- Elected officials and staff
- Investor-owned utilities
- Homeowners and renters
- Disadvantaged communities
- Property owners and managers
- Business owners
- Local industries
- School district administrators and teachers
- Environmental/public interest groups
- Local media
- General public

Communication During Non-Shortage Periods

West Basin continuously engages nearly 1 million people in its service area through ongoing outreach, education, and water-efficiency programs that seek to convey the importance of adopting a Conservation as a Way of Life mindset. In order to foster and sustain a long-term water conservation

ethic in the region, West Basin utilizes a variety of outreach methods to communicate important messages and programs to partner agencies, community leaders, and other stakeholders. These efforts have allowed West Basin to maintain reduced service-area water demand levels following the 2012–2016 drought despite relaxation of statewide water-use regulations.

West Basin primarily uses the following outreach methods to communicate with customer agencies, local government, and commercial/industrial water users the importance of conservation:

- Website
 - www.westbasin.org/conservation
- Social media
 - Facebook
 - Twitter
 - Instagram
 - LinkedIn
 - YouTube
- E-newsletter
 - Quarterly
 - Special editions
- Print and digital advertising/marketing
 - Annual advertising campaigns
- Community outreach
 - In-person and online classes, tours, and workshops
 - Speakers bureau for communicating with business, industry, and civic leaders
 - Community and public events
 - Annual Water Harvest Festival
 - West Basin’s existing conservation programs and rebates
 - Talking points
- School outreach/education
 - In-person and online classes and tours
 - Various on-site and remote learning opportunities
 - WaterStar conservation kits for students
- Media relations
 - Press releases and statements
 - Editorials
 - Interviews
- Sharing of collateral/co-branding partner kits through website and file-sharing sites (e.g., Dropbox, OneDrive)

Communication Protocols for Levels 1 & 2 Water Shortages (0–20%)

This section summarizes the communication protocols that West Basin would employ during a Level 1 or 2 water shortage, which includes shortage conditions up to and including 20%. During this type of shortage, West Basin would implement the following communications strategies. These actions would supplement West Basin communications efforts that occur during periods of non-shortage conditions.

- Website
 - Highlight water-shortage information on home page of website
 - Create a home page banner that drives users to a drought-specific landing page that provides up-to-date information about drought, water conditions, and any announced or expected shortage stages for West Basin water retailers and the general public
 - Embed U.S. Drought Monitor “widget” (California conditions map)
 - Link to local city and private retailer conservation/water-efficiency resources
 - Provide a Spanish translation feature for drought page
 - Post news stories and/or press releases about shortage conditions
- Social media
 - Distribute regularly scheduled posts that convey information about the shortage as well as helpful conservation and water-efficiency tips
 - Share retailer and other partner/stakeholder (Metropolitan, Association of California Water Agencies [ACWA], etc.) posts with important messages
 - Share current local, regional, and state news stories about conditions
 - Create and/or share Spanish language posts
 - Develop boosted posts in geo-targeted areas for increased presence
- Print and digital advertising/marketing
 - Evaluate direct-marketing opportunities and print and online advertising with broad community reach and market penetration
 - Seek out retailer partner funding support for outreach campaigns
 - Evaluate Spanish language outreach for targeted areas
- Community outreach
 - Include drought and water shortage-related content in public education and outreach efforts
 - Seek out additional opportunities to present information at public events
 - Increase frequency of speaker bureau presentations to chambers of commerce and other civic-based organizations
 - Audit efficient-fixture giveaway supplies to increase water-saving device inventory
- School outreach/education
 - Highlight drought-related content in school education programs
 - Add shortage-specific overviews to tours and classroom events
- Media relations
 - Distribute press releases to announce any water shortage declaration or other critical information
 - Hold press conferences or provide statements regarding declarations of water shortage
 - Update talking points based on shortage severity

- Communication with cities, private retail water providers, and commercial/industrial water users
 - Seek out opportunities to present water shortage announcements at city council meetings, committee meetings, and other municipal settings
 - Provide water shortage overview and any associated voluntary/mandatory actions based on the shortage declaration to city/retailer leadership

Communication Protocols for Levels 3 & 4 Water Shortages (21–40%)

This section summarizes the communication protocols that West Basin would employ during a Level 3 or 4 water shortage, which includes shortage conditions from 21–40%. During this type of shortage, West Basin would increase the frequency and intensity of its communications efforts. The actions summarized below would supplement ongoing West Basin communications efforts already implemented during Levels 1 and 2 water shortages.

- Website
 - Build out and bring further exposure to water shortage landing page and website call-outs
 - Update theme and tone of online stories and/or press releases to be more serious in nature—revise language from voluntary (we “should” do this) to mandatory (we “must” do this) call to action
 - Evaluate local, city, and private-retailer conservation/water-efficiency website resources and offer additional support to ensure water users have access to relevant, updated shortage information
 - Invest more resources into Spanish language microsite to convey increased severity of messaging regarding shortage and the need to use less water
 - Create additional web page for mandatory water-use restrictions and/or drought rationing/allocation plan, if triggered in these stages
- Social media
 - Regularly schedule posts that convey more serious messages about the heightened shortage stages, moving from voluntary conservation and water-efficiency tips to mandatory conservation measures that trigger immediate and sustained water-use reductions.
 - Update cover art/imagery to reflect a serious tone in line with shortage severity
 - Continue to share retailer and other partner/stakeholder (Metropolitan, ACWA, etc.) posts but focus on the more serious and mandatory calls to action
 - Evaluate service area for additional geo-targeted advertising opportunities in languages other than English and Spanish
 - Repurpose targeted micro-community outreach messaging provided by Metropolitan to achieve cost savings
- Print and digital advertising/marketing
 - Increase direct-marketing opportunities for print and online publications by adding smaller publications to the established list of media outlet advertising
 - Continue to seek out additional retailer partner funding support for outreach campaigns
 - Develop a collateral piece with drought information and resources
 - Evaluate additional languages to supplement English and Spanish for outreach in targeted areas of West Basin

- Consider other potential advertising forums, either self-funded or in partnership with other water providers, including
 - Television
 - Movie theaters
 - Radio
 - Billboards/bus shelters
 - Guerilla or nontraditional marketing
- Community outreach
 - Continue to seek out targeted opportunities to present critical information at public, civic, and business/industry events concerning worsening water conditions and any mandatory water-use regulations/actions
 - Provide water-saving devices as giveaways
 - Focus annual festival on water-use efficiency and drought-related matters
- School outreach/education
 - Refer to worsening water conditions and mandatory measures in school education programs, including classrooms and tour events
 - Encourage students to engage with their families in conserving water at home
- Media relations
 - Additional press release to announce increased water shortage declaration
 - Develop opinion pieces and letters to the editor from members of the Board regarding the severity of the water shortage and the necessary call to action for everyone to conserve
 - Additional press conference or statement on more severe water-shortage stage as needed
 - Talking points updated based on shortage severity
- Communication with cities, private retail water providers, and commercial/industrial water users
 - Host drought/water-shortage town hall meetings in all five Divisions of West Basin
 - Host elected official forums
 - Help distribute fact sheets, ordinances, and water-saving guidelines to municipalities and other major water-using sectors of the service area

Communication Protocols for Level 5 & 6 Water Shortages (41-50+%)

West Basin considers a Level 5 or 6 water shortage to be a severe or critical/catastrophic shortage. This includes water-shortage conditions of 41% and higher. During this type of shortage, West Basin would significantly expand the frequency and intensity of its communications efforts, even from those actions taken during a Level 3 or 4 shortage. As the shortage exceeds 50%, West Basin would shift its communications focus to maintaining water use for health and safety purposes. Communications efforts at this stage will almost completely be focused on stressing immediate, mandatory actions, with voluntary conservation mostly being reserved for the lower shortage levels.

- Website
 - Increased focus on mandatory water-use restrictions and/or drought rationing/allocation plan in all targeted languages
 - Update theme and tone of online stories and/or press releases to convey even more serious messaging/branding

- Ensure that city and private water provider websites are in sync with West Basin messaging to convey severity of water shortage
- Social Media
 - Increased focus on mandatory water-use restrictions and/or drought rationing/allocation plan in all targeted languages
 - Continue to share most serious messages and mandatory calls to action at the state, regional and local levels
- Print and Digital Advertising/Marketing
 - Implement comprehensive, robust marketing campaigns in partnership with local and regional agencies
 - English, Spanish, and other languages as needed
 - Increase frequency of advertising opportunities in the previously mentioned mediums
 - Television
 - Movie theaters
 - Radio
 - Billboards/bus shelters
 - Guerilla or non-traditional marketing
 - Record and distribute weekly or monthly video updates on the status of the water shortage and any ongoing water-use restrictions
- Community Outreach
 - Information provided at public, civic, and business/industry events would focus on critical/catastrophic nature of water shortage and clearly convey mandatory water-use regulations/actions
- School Outreach/Education
 - Continue ramping up messaging to students and school administrators regarding the severity of water shortage
- Media Relations
 - Continue series of opinion pieces and letters to the editor from members of the Board on the severity of the water shortage and the needed call to action for everyone to conserve
 - Additional press conferences as needed
- Communication with Cities, Private Retail Water Providers, and Commercial/Industrial Water Users
 - Host additional drought/water-shortage townhall meetings in all five of West Basin's divisions as needed
 - Host additional elected official forums as needed
 - Increase efforts to distribute fact sheets, ordinances, and water-saving guidelines to municipalities and other major water-using sectors of the service area
 - Implement and/or participate in regional or local joint-information centers to communicate critical information to all water-use sectors
 - Ensure that Public Information Officer contact information for each and every retailer is updated and ready for coordinating activities once a severe/critical water shortage is triggered

3.6 Compliance and Enforcement

Per the Water Code Section 10632 (a)(6), as a wholesale water provider, West Basin is not responsible for compliance and enforcement of shortage response actions.

3.7 Legal Authorities

Per Water Code Section 10632 (a)(7)(A), West Basin, as formed under the Municipal Water District Law of 1911, shall have the legal authority to empower West Basin to implement and enforce its shortage response actions pursuant to California Water Code Sections 71640-71644, and may adopt any resolution or ordinance as needed to declare or respond to any water-shortage emergency.

Per Water Code Section 10632 (a)(7)(B), West Basin shall declare a water-shortage emergency condition to prevail within its service area whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply to the extent that there would be insufficient water for human consumption, sanitation, and fire protection (Water Code Section 353).

Per Water Code Section 10632 (a)(7)(C), West Basin shall coordinate with any city or county for which it provides water supply services for the possible proclamation of a local emergency under California Government Code, California Emergency Services Act (Article 2, Section 8558). Along with developed coordination protocols, West Basin can facilitate compliance with this section of the Water Code in the event of a local emergency as defined in subpart (c) of Government Code Section 8558.

3.8 Financial Consequences of WSCP

Per Water Code Section 10632 (a)(8), West Basin must include a description of the overall anticipated financial consequences of implementing the WSCP. This description must include potential reductions in revenue and increased expenses associated with implementation of the shortage response actions. This should be coupled with an identification of the anticipated mitigation actions needed to address these financial impacts.

The water shortage response actions designed to address a range of water shortage conditions have the potential to impact West Basin's revenues and expenditures. To assess these impacts, West Basin calculated the revenue impacts resulting from each shortage stage in terms of percent reduction in sales compared to an estimate of a normal year baseline. Other factors incorporated into the analysis included water losses, pricing structure, and avoided costs.

West Basin develops its annual budget and designated fund levels through careful consideration of many different factors to achieve its mission, strategic goals, and other priorities. West Basin's annual budgeting process incorporates feedback from critical stakeholders, such as its retail water suppliers, to help guide West Basin in meeting its financial goals and objectives. As financial stewards of the West Basin service area, the Board of Directors is cognizant to set appropriate rates and charges to cover required program expenditures.

Nearly 90% of West Basin's revenues are generated from volumetric sales to retail agencies. These retail water sales vary based on a variety of factors such as hydrologic conditions, water demand, and water supply availability. West Basin staff employs comprehensive analysis and forecasting strategies to determine sales assumptions for future years. Variability in water sales levels can have significant impacts on West Basin's budget and overall financial health. Future water shortages are likely to result in financial impacts that affect the ability of West Basin to meet its ongoing goals and objectives.

West Basin's options for shortage response actions include demand management measures, operational flexibility, and (to a lesser extent) supply augmentation. Employing any one or more of these actions could trigger a financial impact on West Basin's budget and fiscal health.

Measures that reduce overall imported water use in its service area causes West Basin to purchase less water from Metropolitan and sell less water to its retailers. While this would result in both lower expenses and lower revenues, the net impact is a greater loss of water sales revenue than expenditure savings on reduced water purchases. The combination of lower water sales and increased expenditure levels that are needed to address water-shortage situations is likely to have some impact on West Basin's budget, which could also affect its rates. To mitigate these impacts and provide additional fiscal stability, West Basin conducts annual and long-term financial planning. Long-term planning allows West Basin to better understand and anticipate its current and forecasted revenue streams and expenses, providing flexibility to plan for known conditions in the future. West Basin also employs an extensive annual budget and rate-setting process that includes a comprehensive evaluation of its designated funds. This process may be utilized to help buffer the financial impacts of water-shortage situations that lead to reduced revenues and increased costs.

As a result, when West Basin is impacted by short-term water shortages, it can look more critically at current operations to determine which programs and/or capital projects may need to be deferred or eliminated in order to manage a combination of higher costs and reduced water sales. Likewise, by implementing long-term planning strategies, West Basin can more easily weather a longer-lasting water-shortage crisis. Through this prudent and forward-looking planning and budgeting process, West Basin is more adequately prepared to manage the unexpected financial impacts that may occur due to future water shortages.

In addition to utilizing designated funds to buffer the financial impacts of future water shortages, West Basin may implement other cost-saving actions, including the following:

- Reduced operations and/or maintenance activities
- Organizational restructuring and streamlining
- Deferral of Capital Investment Plan projects
- Increasing rates and/or other charges

While the above actions are not preferred, they serve as potential tools to use as part of an overall strategy that allows West Basin to continue meeting its mission and objectives.

West Basin's designated-fund policy provides for a minimum reserve requirement and target amount of unrestricted reserves on June 30 of each year. Funds in excess of the target amount can be utilized for capital expenditures in lieu of the issuance of additional debt or for the redemption, defeasance, or purchase of outstanding bonds or commercial paper as determined by the Board.

3.9 Monitoring and Reporting

Per Water Code Section 10632 (a)(9), since West Basin is a wholesale water supplier it is not required to provide a description of the monitoring and reporting requirements and procedures that have been implemented to ensure appropriate data is collected, tracked and analyzed for purposes of monitoring customer compliance and to meet state reporting requirements.

3.10 WSCP Refinement Procedures

Per Water Code Section 10632 (a)(10), West Basin must provide reevaluation and improvement procedures for systematically monitoring and evaluating the functionality of the WSCP. This ensures that shortage risk tolerance is adequate and appropriate water-shortage mitigation strategies are implemented as needed.

West Basin will regularly review and update its WSCP as needed. West Basin views the WSCP as a living document that should reflect the most recent conditions, including water supply and demand,

climate, policy, regulatory, or other operational conditions at a given point in time. Revisions to the WSCP may be implemented either during upcoming UWMP cycles or as standalone revisions that are needed to incorporate the most up-to-date information and requirements.

Revisions to the WSCP may include, but are not limited to, the following:

- Updates to shortage plan and stages
- Demand reduction actions
- Supply augmentation actions
- Operational changes
- Updates to communication protocols

In conjunction with preparing the Annual Assessment, West Basin staff will evaluate the efficacy of the overall WSCP and prepare recommendations for West Basin's Board of Directors to consider should updates to the plan be deemed necessary.

West Basin will also collaborate with its retail agencies to explore the possibility of developing a regionally coordinated WSCP in future years. The implementation of such a plan could help to streamline information sharing among water providers and offer regular updates to the shortage response strategies and actions for all water suppliers in West Basin's service area.

In addition to its retail agencies, West Basin will solicit feedback from the public and other interested stakeholders concerning any future modifications to the WSCP. Any feedback received will be carefully considered and evaluated by the West Basin Board of Directors and staff before making any revisions or refinements to the WSCP.

3.11 Special Water Feature Distinction

West Basin defines water features that are artificially supplied with water — including ponds, lakes, waterfalls and fountains — separately from swimming pools and spas, per subdivision (a) of Section 115921 of the Health and Safety Code.

3.12 Plan Adoption, Submittal, and Availability

West Basin met the required 60-day public hearing notification to stakeholders in its service area. Notification was sent to West Basin's retail water suppliers and to cities and counties in the West Basin service area. The public notice provided a summary of West Basin's intent to review and update the 2021 WSCP. Additional public notification was posted on the West Basin website on April 8, 2021.³ A copy of the 60-day public hearing notice is included in **Attachment D**.

Per Water Code Section 10632 (a)(c), West Basin provided notice of the availability of its draft 2021 WSCP and notice of the public hearing to consider adoption of the 2021 WSCP in accordance with CWC Sections 10621(b) and 10642 and Government Code Section 6066. The public review draft of the 2021 WSCP was posted prominently on West Basin's website on May 25, 2021, ahead of the public hearing on June 10, 2021. The notice of availability of the documents was sent to West Basin's retail agencies and to cities and counties in West Basin's service area. In addition, a public notice advertising the public hearing was published in five local newspapers. Copies of the notification letter that were sent to West Basin's retail agencies and cities and counties in West Basin's service area, as well as copies of the public notice published in local newspapers, are included in **Attachment D**.

³ <https://www.westbasin.org/>

West Basin held the public hearing for the draft 2021 WSCP on June 10, 2021, at the West Basin Board of Directors meeting. The meeting was conducted online due to ongoing COVID-19 precautions. As stated in Resolution [REDACTED], the West Basin Board of Directors reviewed and adopted the 2021 WSCP at the Board's June 28, 2021 meeting. **Attachment E** contains a copy of the adoption resolution.

Per Water Code Sections 10632 (c) and 10645 (a) and (b), the 2021 WSCP was posted on West Basin's website on June 30, 2021, following its adoption by the West Basin Board of Directors. Copies were sent to West Basin's retail agencies and to cities and counties in the service area. Copies were also submitted electronically to the California State Library. These actions satisfy the requirement to make the plan publicly available and identifiable to local government stakeholders in West Basin's service area. The 2021 WSCP was also submitted electronically to the State of California through DWR's Water Use Efficiency (WUE) data website on June 30, 2021.⁴

Based on DWR's review of the WSCP, West Basin will make amendments to its adopted WSCP as required. If West Basin revises its WSCP after the 2020 UWMP is approved by DWR, then an electronic copy of the revised WSCP will be submitted to DWR within 30 days of its adoption.

⁴ <https://wuedata.water.ca.gov/secure/>

R

References

All links below were accessed in June 2021 unless otherwise indicated.

Metropolitan Water District of Southern California. (2020). *Capital Investment Plan*.

Metropolitan Water District of Southern California. (2020). *Seismic Resilience Report*.

Metropolitan Water District of Southern California. (August 1999). *Water Surplus and Drought Management Plan*.

Metropolitan Water District of Southern California. (June 2008). *Water Supply Condition Framework*.

Metropolitan Water District of Southern California. (May 2021). *2020 Urban Water Management Plan*.

Metropolitan Water District of Southern California. (May 2021). *Water Shortage Contingency Plan*.

West Basin Municipal Water District. (June 2021). *2020 Urban Water Management Plan*. Retrieved from <https://www.westbasin.org/policy-planning/reports-plans/>

A

Attachment A: Metropolitan 2020 WSCP

Metropolitan Water District of Southern California, Water Shortage Contingency Plan (May 2021) is in the process of final review and adoption. Reference Metropolitan's Final 2020 WSCP, when available online: <http://www.mwdh2o.com/AboutYourWater/Planning/Planning-Documents>

B

Attachment B: West Basin 2015 Drought Rationing Plan



West Basin Municipal Water District

Drought Rationing Plan Allocation Year 2015

**Adopted March 23, 2015
Declared April 27, 2015
Effective July 1, 2015**

1. Introduction

West Basin Municipal Water District is a member public agency of the Metropolitan Water District of Southern California (MWD), and is responsible for the wholesale delivery of potable imported water by Metropolitan to eight retail water agencies and one groundwater replenishment agency, which collectively serve about 900,000 people within the West Basin service area.

West Basin is pursuing a water reliability strategy of increasing local control over its water supplies within its service territory by increasing water conservation and water recycling, expanding education programs and introducing ocean desalination to the water supply portfolio by the year 2022. Today, however, our region still relies on water from Northern California and the Colorado River for nearly two-thirds of our supply. This reliance on hydrologically-dependent supplies leaves our region vulnerable to drought and the long-term impacts of changing climate patterns.

Drought periods in Southern California are happening more frequently and with greater severity. When MWD does not have access to the supplies necessary to meet total demands and has to allocate shortages in supplies to West Basin and its other member agencies, it enacts the Water Supply Allocation Plan as a demand management tool to extend the availability of storage reserves.

On March 23, 2015, the West Basin Board adopted an update to the “Water Shortage Allocation Plan” and changed the name to Drought Rationing Plan (Plan). When MWD implements the WSAP, the Drought Rationing Plan is necessary for two primary reasons: 1) to help achieve MWD’s (and the Governor’s) conservation goal; and 2) equitably recover any financial penalties from our customer agencies should West Basin fall short of the goal. The Plan includes a “regional penalty assessment” policy that only assesses financial penalties to West Basin’s customer agencies if West Basin itself incurs penalties.

The current drought (2012 to present) has been unprecedented in terms of increasing average temperatures and the scarcity of snowpack in the Sierra Nevada. In 2014, MWD was forced to withdraw almost one-half of the available balance of the region’s collective stored water. Without a significant decrease in demand in 2015, MWD was projecting that another one-half of the remaining balance would need to be withdrawn. Governor Brown’s April 1, 2015 Executive Order required a statewide reduction in water use by 25% compared to 2013 and added urgency to MWD’s consideration of implementing the WSAP. Also in April 2015, the MWD Board of Directors approved enacting the WSAP at a Level 3, which targets a 15% reduction in demand (5% for each Level).

2. Metropolitan Water District’s *Water Supply Allocation Plan*

Metropolitan’s Board of Directors approved the first Water Supply Allocation Plan in February 2008 and updated its WSAP in December 2014. It is based on a guiding

principle developed over fifteen years prior as part of the Water Surplus and Drought Management (WSDM) Plan. The guiding principle states:

“Metropolitan will encourage storage of water during periods of surplus and work jointly with its member agencies to minimize the impacts of water shortages on the region’s retail consumers and economy during periods of shortage.”

Fairness in allocation and minimizing regional hardship to retail water consumers remained central themes in the development of a specific formula for allocating shortages across southern California. The formula uses different adjustments and credits to balance impacts of shortage at the retail level, where local supplies can vary dramatically, and provide equity on the wholesale level among member agencies. It also attempts to take into account; growth in demand, local investments, changes in local supply conditions, the reduction in potable water demand from recycled water, and the implementation of water conservation programs.

The WSAP was updated for the current period to reflect minimal changes in the formula and to address issues that arose as a result of the prior allocation. These changes are described below.

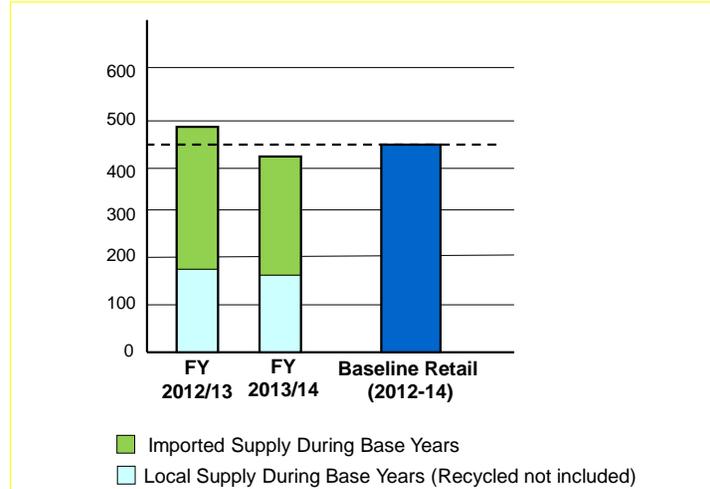
3. West Basin’s Shortage Allocation Methodology

Based closely on Metropolitan’s methodology, West Basin’s Plan model has five basic components in determining each customer agency’s share of West Basin’s allocation from Metropolitan, briefly described as follows.

A. Establishing Baseline Water Use

In order to project a customer agency’s retail demand and imported supply needs for the year in which an allocation occurs, it is necessary to first establish a historical base period for water supply and delivery data. The base period for *local supplies* (groundwater production and recovery) and *imported water demand* (full-service, seawater barrier, seasonal shift and in-lieu groundwater replenishment) are calculated using data from the previous two non-shortage fiscal years, 2012-2013 and 2013-2014. The sum of *local supplies* and *imported water demand* provides an estimate of the average *retail demand* for each customer agency over the base period. Non-potable recycled water is not included in this calculation due to its demand-hardening effect. Figure 1 provides an example of how the baseline water use is established.

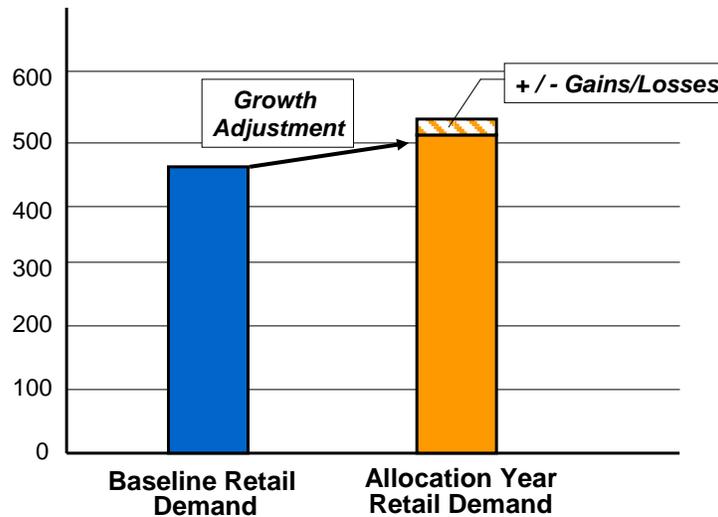
Figure 1. Example of Baseline Calculation



B. Establishing Allocation Year Information

Base period *retail demand* is adjusted forward for growth using a factor that is based on the population increase from the base period to the year of allocation (a 2015 allocation is one year after the end of the base period). As Figure 2 shows, gains or losses are also added to the base period *local supplies* to more accurately estimate actual supplies in the allocation year. Gains in *local supplies* must be increases that are planned and scheduled, such as groundwater production that does not mine a basin, or a new brackish water treatment facility. Losses of *local supplies* due to hydrology or water quality are subtracted from the base period.

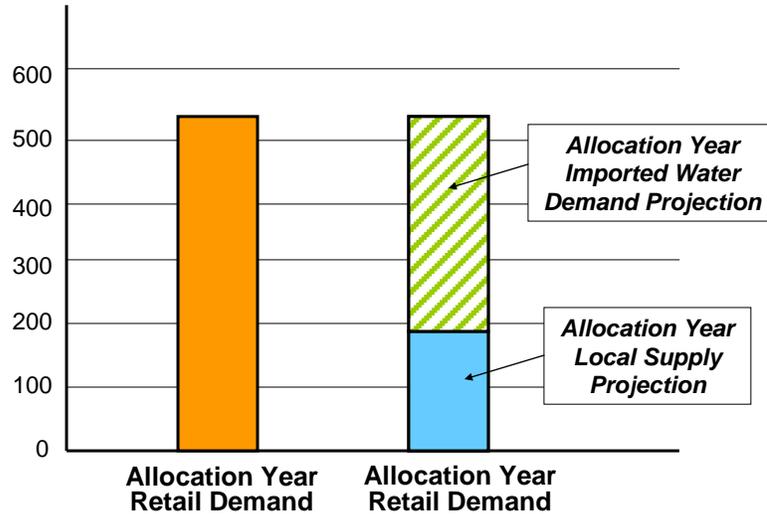
Figure 2. Example of Allocation Year Adjustments



C. Calculating Initial Minimum Allocation

After adjustments are made to *local supplies* to reflect allocation year conditions, and subtracted from *retail demand*, which has been adjusted for growth to the allocation year, the result is an agency's estimated need for imported water from West Basin.

Figure 3. Example of Allocation Year Imported Water Demand Projection

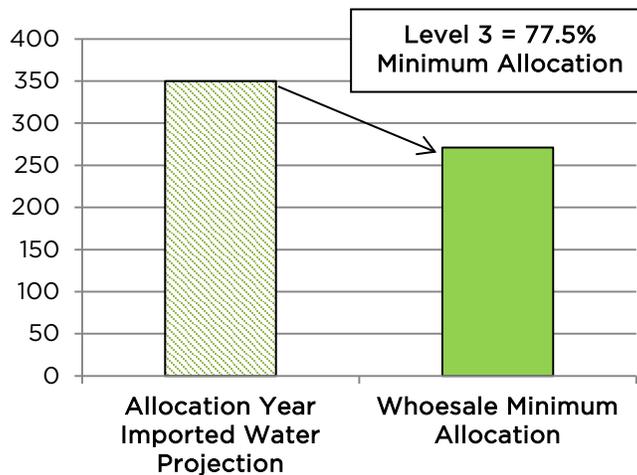


As shown in Figure 4, the projected imported water demand is what is allocated according to the declared regional shortage level (Level 3 for the 2015 Allocation). The following concepts help explain the allocation further:

- **Regional Shortage Levels:** each level from one to ten represents a five percent increment of Regional Shortage Percentage from 5 to 50 percent.
- **Regional Shortage Percentage:** the percentage difference between available supplies and allocation year demands, in 5 percent increments from 5 to 50 percent.
- **Wholesale Minimum Allocation:** ensures that customer agencies will not experience shortages on the wholesale level (from West Basin) that are greater than one-and-a-half times the Regional Shortage Percentage, according to the following table:

Regional Shortage Level	Regional Shortage Percentage	Wholesale Minimum Allocation	Retail Impact Adjustment
1	5%	7.5%	2.5%
2	10%	15.0%	5.0%
3	15%	22.5%	7.5%
4	20%	30.0%	10.0%
5	25%	37.5%	12.5%
6	30%	45.0%	15.0%
7	35%	52.5%	17.5%
8	40%	60.0%	20.0%
9	45%	67.5%	22.5%
10	50%	75.0%	25.0%

Figure 4. Example of Initial Minimum Allocation



D. Minimum Allocation Adjustments and Credits

Unequal impacts of across-the-board allocation at the retail level can be dramatic depending primarily on the amount of local supplies, if any, held by each customer agency. That is why the allocation methodology assigns additional water supplies based on the following adjustments and credits:

- **Retail Impact Adjustment:** Used in Regional Shortage Level 3 and above to ensure that customer agencies with a high level of dependence on imported water do not experience disparate shortages at the retail level compared to other agencies. Agencies that are 100% dependent on imported water, for example,

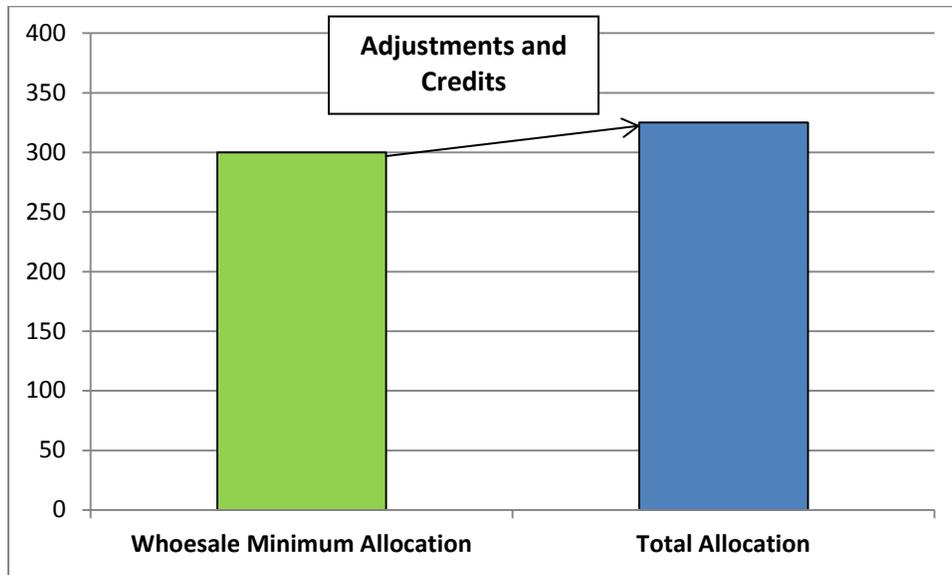
are allocated at the Regional Shortage Percentage instead of the Wholesale Minimum Allocation.

- Conservation Demand Hardening:** Based on each customer agency’s gallons per capita per day (GPCD) from a 10-year selected period’s highest average, ending in years between 2004 and 2010, as compared to the 2015 GPCD. The difference in GPCD was converted to acre-feet and the regional shortage percentage and GPCD percent reduction was applied for a resulting amount of additional water given back to the agency for conservation efforts. This is consistent with requirements for SBx7-7 “20x2020” reporting. The calculation for the credit is:

$$\text{Credit} = \text{Conservation} \times (10\% + \text{RSL}\%) \times (1 + \text{Conservation}\%) \times \text{Dependence on MWD}\%$$

RSL = Regional Shortage Level

Figure 5. Example of Adjustments to Minimum Allocation at Level 3



E. Total Allocation

The total amount of imported water a customer agency will receive from West Basin at any given Regional Shortage Level, factoring in local supplies, wholesale minimum allocation, retail impact adjustment, and conservation.

4. Plan Implementation

A. Declaration of Regional Shortage

On April 14, 2015, Metropolitan's Board of Directors declared a regional drought within their service territory, and triggered the implementation of their Water Supply Allocation Plan at a Regional Shortage Level 3, seeking at minimum a 15% reduction in regional water use. In order to pass through rationing down to the retail level, and assign any penalties to its customer agencies that West Basin may incur from exceeding its allocation from Metropolitan, the West Basin Board of Directors also approved implementing their Drought Allocation Plan at Level 3 on April 27, 2015.

B. Key Dates for Implementation

The generic allocation calendar below demonstrates that declarations of regional drought are typically made in April when hydrologic conditions statewide are sufficiently understood. To allow time for retail level agencies to adequately prepare their operations and customers for allocation conditions, the allocation effective period begins July 1 and runs 12 consecutive months through June 30 of the following year. Final accounting of customer agency imported water use and assessment of penalties, if applicable, occurs after the end of the allocation period, beginning in August of that year.

Figure 6. Allocation Timeline

Year	Month	Year 1 Board Allocation Decision	Year 1 Allocation Year	Year 2 Board Allocation Decision	Year 2 Allocation Year
YEAR 1	January	Declaration	Effective Period Continuous Tracking Of Member Agency Local Supply and Imported Water Use	Declaration	
	February				
	March				
	April				
	May				
	June				
	July				
	August				
	September				
	October				
	November				
	December				
YEAR 2	January	Assess and Collect Penalties		Declaration	
	February				
	March				
	April				
	May				
	June				
	July				
	August				
	September				
	October				
	November				
	December				
YEAR 3	January	Effective Period Continuous Tracking Of Member Agency Local Supply and Imported Water Use			
	February				
	March				
	April				
	May				
	June				

C. Allocation Adjustments

As a member agency of Metropolitan, West Basin is provided the opportunity to request changes to its allocation through an appeals process. Likewise, customer agencies of West Basin are provided the opportunity to appeal to their individual allocations from West Basin based on new or corrected information. Grounds for requesting a change can include, but are not limited to:

- Errors in historical data used in base period calculations
- Unforeseen losses or gains in local supplies
- Extraordinary increases in local supplies
- Adjustments in credits for conservation

In some cases, West Basin has no flexibility to change a customer agency's allocation unless it results in a change to West Basin's total allocation with Metropolitan. West Basin staff will, however, work with customer agencies to determine whether appeals to Metropolitan are warranted, and if so, to prepare an appeal for review by Metropolitan.

D. Tracking and Reporting

Subsequent to the implementation of its Plan, West Basin will produce monthly reports of each customer agency's imported water use compared to its allocations based on monthly delivery patterns (historical averages) for the purposes of tracking and communicating potential underage/overage of an agency's annual allocation.

E. Allocation Penalty Rates and Billing

Allocation Penalty Rates

West Basin will enforce customer agency allocations through a penalty rate structure similar to what West Basin is subject to in Metropolitan's WSAP. Penalties will only be assessed to a West Basin retail customer agency if a retail customer agency exceeded its allocation under the Drought Rationing Plan AND West Basin exceeded its allocation with MWD under the Water Supply Allocation Plan. In such a case, West Basin's total penalty will be assessed to each retail customer agency that exceeded its Drought Rationing Plan allocation on a pro-rata basis. No billing or assessment of penalty rates will take place until the end of the twelve-month allocation period. Penalty rates are in addition to the base rate of the water purchased.

Table 1 demonstrates that the penalty rate structure is an ascending block structure that provides a lower penalty for minor overuse of allocations and a higher penalty for major overuse of allocations.

Table 1. West Basin Allocation Penalty Rates

Usage Above Allocation	Penalty Rate
100% - 115%	\$1,480/AF
Above 115%	\$2,960 AF (2 x \$1,480/AF)

- Based on turf removal costs
- Turf removal saves ~44 gallons per year per square foot for 10 years
- \$2/sq. ft. program = \$1,480 AF
- \$4/sq. ft. program = \$2,960 AF

Use of Penalty Revenues

According to the Drought Allocation Plan policy adopted by the West Basin Board of Directors, any penalty funds collected by West Basin from customer agencies will be applied to any penalty owed to Metropolitan.

West Basin Billing

During the allocation period, customer agency water bills from West Basin will remain the same. Only at the end of the twelve-month allocation period will West Basin calculate each customer agency's potable water use (imported plus local supply) based on the local supply certification and the West Basin allocation model, and determine which agencies exceeded their annual allocation. West Basin will then apply the penalty rate structure discussed above to usage in excess of the annual allocation.

In recognition that penalties can be potentially significant to a customer agency, West Basin will allow payment of the total penalty for a customer agency to be spread evenly over three consecutive monthly billing periods, beginning in August following the allocation period.

5. Water Reliability 2020

West Basin is planning and investing in its WR 2020 program to reduce its dependence on imported water to mitigate future water shortages and allocation impacts on West Basin's customers.

6. West Basin Contact Information

For questions directly related to West Basin's Drought Allocation Plan, please contact the following staff:

Leighanne Kirk
Senior Water Resources Analyst
leighannek@westbasin.org
310-660-6225

Fernando Paludi
Associate General Manager
fernandop@westbasin.org
310-660-6214

C

Attachment C: Drought Outreach Information and Materials



West Basin Drought Outreach Plan

Problem

There will be confusion among our political leaders and public customers about the drought and the severe impact in Northern California (restrictions, allocations and cut offs) and the lack of any restrictions or allocations in Southern California. This situation provides a great opportunity to tell the reliability and conservation stories as well as the benefits of West Basin's investment in local, reliable and drought-proof water supplies in the past and today. This plan will address this issue and provide guidance on how to communicate this important story to our stakeholders.

Situation Analysis

California is entering its third dry year. Southern California's two main sources of imported water –the Colorado River and Northern California – continue to face dry conditions.

2013 was the driest year on record for the State of California.

Northern California reservoirs are low and dry conditions persist throughout the State.

Many Northern California cities, including Sacramento, are instituting mandatory conservation measures and rationing.

Last year's snowpack was 17% of normal and this year's snowpack is currently at 20% of water content or 7% of average.

State reservoirs that buffer the State from low rainfall are getting precariously low.

The State Department of Water Resource's initial allocation was only 5% to contractors of state water supply in early 2014.

We still have a decline in State water reliability due to pumping restrictions at the Delta.

In 2013, Metropolitan Water District of Southern California (Met) lost nearly 300,000 acre feet of water that could be in storage, and that is enough water for 600,000 families. The Bay Delta Conservation Plan or BDCP will stabilize the Delta ecosystem and our future water deliveries.

Met has made significant investments in storage and infrastructure that are helping us today, including the large Diamond Valley Reservoir in Hemet, CA.

The Colorado River is in its 14th year of drought. Both of the major Colorado River reservoirs, Lake Mead and Powell, are less than 50% full. Along the Colorado River, a 2012 study identified a potential shortfall of up to 3.2 million acre feet of water in the Colorado River basin by 2060 due to increasing demands. Climate change studies also predict water shortages on the Colorado River due to changing weather patterns.

Met has reached an era of limits on the amount of water the district can import from Northern California and the Colorado River so they are exploring all options to expand local water resources.

Over the last couple of decades, Southern California water agencies, led by Met, have spent over \$5 billion on local water projects, storage, water efficiency programs and other infrastructure. The result of this proactive investment is the fact that Met, West Basin and many other Southern California water agencies are not imposing water restrictions or allocating water. At the same time, all agencies are encouraging continued voluntary and heightened water efficiency and conservation where possible. Met is calling for increased voluntary conservation.

On 17 January, Governor Brown declared a drought State of Emergency and said; *“We can’t make it rain, but we can be much better prepared for the terrible consequences that California’s drought now threatens, including dramatically less water for our farms and communities and increased fires in both urban and rural areas,”* said Governor Brown. *“I’ve declared this emergency and I’m calling all Californians to conserve water in every possible way.”*

After sustaining previous droughts (1987-1992, 2000-2002, and 2007-2009), West Basin has pursued new programs and projects to maximize existing water supplies, and educate residents about the importance of water use efficiency.

These programs have included 1) water recycling projects, to replace the use of potable water, with treated recycled water; 2) water conservation initiatives including low flow toilet and shower head giveaways, rebate programs for grass turf removal, kitchen retrofit projects and ocean friendly garden installations; 3) administrative programs intended to reward customers who reduce their water usage (i.e. tiered rate structures); 4) a groundwater cleanup program: most recently researching ocean water desalination: and ongoing water efficiency programs for youth and adult audiences.

Accordingly, West Basin began planning for such dry conditions in the early 1990's with the construction of the Edward C. Little Water Recycling Facility. Since then, we have expanded our facility four times, have become a leader in water use efficiency and conservation (on track to reach our state mandated 20% reduction by 2020 or before), and are currently exploring the responsible use of ocean water desalination to augment our future water supply portfolio.

West Basin has initiated a goal program called Water Reliability 2020 designed to reduce West Basin's dependence on imported water from 66% then to 33% by 2020. This would be accomplished by doubling the recycling and conservation programs and adding 10% of the District's future water supplies from ocean water desalination. To date, more than 10,000 residents have signed on to support West Basin's Water Reliability 2020 Program.

Metropolitan Water District of Southern California and other Southern California water agencies are also developing questions and answers to support the current drought situation. These answers lie in how past investments in local water projects, storage and other water efficiency projects has allowed these agencies to deliver water during this dry period without restrictions or allocations.

Below are talking points for West Basin's Board of Directors and staff to explain how our investment in local supplies is now providing great benefit to our customers. *(FYI> Metropolitan Water District of Southern California's current talking points are also attached).*

Goal

The goal of this drought outreach plan is to inform key constituents and/or stakeholders of the fact that their support of our water reliability efforts is paying off. Due to this investment, West Basin is not issuing water restrictions or allocations during the current drought. Another goal of this plan is to use the current situation to encourage maximum voluntary conservation and water efficiency.

Strategy

Use the current drought environment to remind customers that West Basin's Water Reliability Program is doing exactly what it was designed to: (1) Provide reliable water even during times of drought and water shortages and (2) also encourage conservation and water efficiency.

Target Audiences

The target audiences for this communications plan include: West Basin's 17 cities and primary eight customers, recycled water customers, local state and federal elected officials, staff, media, SBESC, Chambers, and subscribers to our e-newsletter.

Proposed Talking Points and Tactics to Support the Plan

Drought Talking Points

1. We are not rationing water during the current drought because of West Basin's investment in its Water Reliability 2020 program and Metropolitan Water District of Southern California's (MWD) similar investment in storage and other water supply programs.
2. We will continue to expand our recycling and investigate ocean-water desalination, but we need your help now with water efficiency and conservation programs.

3. Now is the time to be most efficient with the water we have available and protect our current water in storage. Now is also the time to take advantage of West Basin's free water conservation and efficiency programs.
4. Over the past twenty years, all of Southern California, through MWD, has invested more than \$5 billion in storage, infrastructure and local water supply improvements to sustain the area during extremely dry periods.
5. Locally, West Basin has invested over \$600 million in water recycling and conservation programs to provide reliable, drought-proof water supplies for its 17 cities and nearly 1 million customers.

Channels of Communication and Tactics

1. Send out a special drought-related e-newsletter explaining how West Basin's investment in a locally-controlled and reliable water portfolio is paying great dividends and is why we are not rationing water.
2. Send letters from Board members to the cities they represent explaining the positive story of our proactive investment in reliable water supplies and as a result there will be no water rationing.
3. At the time of the next measurement of the snowpack, probably in February, consider holding a press conference at the Edward C. Little plant with one of our local State elected representatives.
4. Use the South Bay Environmental Service Center to help us reach city officials and businesses with redistribution of our e-newsletter article.
5. Mention of West Basin's reliability efforts and the reasons we are not rationing water at our OFG's, landscape classes, special events and Water 101 classes.

6. Consider issuing a drought press release/solicit coverage of ECL facility.
7. Revamp front page of web site to note drought and add tips for water efficiency.
8. Do an end of year Annual Report newspaper advertisement to: thank our customers, note our achievements and highlight the drought and the need to conserve.

Measurement

Plan will be considered successful if we reach all of our key audiences with our drought reliability and conservation messages.

Attachment:

Metropolitan Water District of Southern California's current drought talking points

D

Attachment D: Public Notices



17140 S. Avalon Blvd.
Carson, CA 90746

310-217-2411
www.westbasin.org

April 7, 2021

Notice of Public Hearing on the West Basin Municipal Water District Draft 2020 Urban Water Management Plan, Draft 2021 Water Shortage Contingency Plan, and Draft Appendix I to the 2015 UWMP

Dear Valued Customers and Stakeholders,

The West Basin Municipal Water District (West Basin) is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP) in compliance with the Urban Water Management Planning Act. In addition, West Basin is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

West Basin is required to notify its retailers as well as cities and counties within its service area that it is preparing its 2020 UWMP, 2021 WSCP, and Appendix I of the 2015 UWMP updates at least 60 days prior to holding a public hearing. The public hearing is scheduled as part of a West Basin Board meeting on **June 10, 2021 at 10:00 a.m. This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).**

This letter serves as West Basin's official public hearing notice and intent to adopt the 2020 UWMP, 2021 WSCP, and Appendix I of the 2015 UWMP before the July 1, 2021 deadline. A copy of West Basin's draft 2020 UWMP and WSCP will be available for review on the West Basin's website (www.westbasin.org) by May 27, 2021. West Basin will distribute a public draft review notification on or before May 25, 2021 with information on how to access the draft documents. Until that time, if you have any questions, comments, or input, please contact E.J. Caldwell, Water Policy & Resources Development Manager, via email at edwardc@westbasin.org or by phone at (310) 660-6286.

Sincerely,

A handwritten signature in blue ink that reads "Patrick Sheilds".

Patrick Sheilds
General Manager
West Basin Municipal Water District

BOARD OF DIRECTORS

Harold C. Williams
President

Donald L. Dear
Vice President

Scott Houston
Treasurer

Desi Alvarez
Secretary

Gloria D. Gray
Immediate Past President

GENERAL MANAGER: Patrick Sheilds

From: [E.J. Caldwell](mailto:E.J.Caldwell@torranceca.gov)
To: cbilezerian@torranceca.gov
Cc: CSCHAICH@TorranceCA.gov; [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: FW: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 4:59:03 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Craig,

On behalf of West Basin Municipal Water District, I want to thank the City of Torrance, you, and your staff for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, your staff has provided great assistance, and we look forward to your continued participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell)
To: GregG@rollinghillsestatesca.gov
Cc: sarahh@rollinghillsestatesca.gov; alexad@rollinghillsestatesca.gov; Patrick Sheilds; Julie Frazier-Mathews; [Matthew Veeh](#); [Rob Morrow](#)
Subject: FW: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 4:38:03 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Mr. Grammer,

On behalf of West Basin Municipal Water District, I want to thank the City of Rolling Hills Estates for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, we look forward to your participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@westbasin.org)
To: aram@rpvca.gov
Cc: kbanales@rpvca.gov; citymanager@rpvca.gov; [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: FW: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 4:26:55 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Mr. Mihranian,

On behalf of West Basin Municipal Water District, I want to thank the City of Rancho Palos Verdes for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, we look forward to your participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@cityofgardena.org)
To: citymanager.web@cityofgardena.org
Cc: [Patrick Sheilds](mailto:Patrick.Sheilds@cityofgardena.org); [Julie Frazier-Mathews](mailto:Julie.Frazier-Mathews@cityofgardena.org); [Rob Morrow](mailto:Rob.Morrow@cityofgardena.org); [Matthew Veeh](mailto:Matthew.Veeh@cityofgardena.org); nswweeney@cityofgardena.org; rdesantiago@cityofgardena.org
Subject: FW: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 4:00:56 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Mr. Osorio,

On behalf of West Basin Municipal Water District, I want to thank the City of Gardena for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, we look forward to your participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
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edwardc@westbasin.org

From: [E.J. Caldwell](#)
To: ccarrillo@mwdh2o.com; [Polyzos, Demetri J](#)
Cc: [Rob Morrow](#); [Matthew Veeh](#)
Subject: FW: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 5:15:16 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Demetri and Carlos,

On behalf of West Basin Municipal Water District, I want to thank you and the MWD for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, you have been very helpful, and we look forward to your continued participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@westbasin.org)
To: info@surfrider-southbay.org
Cc: craig@surfrider-southbay.org; [Patrick Sheilds](mailto:Patrick.Sheilds@westbasin.org); [Julie Frazier-Mathews](mailto:Julie.Frazier-Mathews@westbasin.org); [Rob Morrow](mailto:Rob.Morrow@westbasin.org); [Matthew Veeh](mailto:Matthew.Veeh@westbasin.org)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 5:02:49 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Craig,

On behalf of West Basin Municipal Water District, I want to thank you and Surfrider for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, we look forward to your continued participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
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edwardc@westbasin.org

From: [E.J. Caldwell](mailto:edwardc@westbasin.org)
To: citymanager@weho.org; parevalo@weho.org
Cc: jrocco@weho.org; [Patrick Sheilds](mailto:Patrick.Sheilds@weho.org); [Julie Frazier-Mathews](mailto:Julie.Frazier-Mathews@weho.org); [Matthew Veeh](mailto:Matthew.Veeh@weho.org); [Rob Morrow](mailto:Rob.Morrow@weho.org)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 4:49:37 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Mr. Arevalo,

On behalf of West Basin Municipal Water District, I want to thank the City of West Hollywood for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, we look forward to your continued participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell)
To: ejeng@cityofrh.net
Cc: cviramontes@cityofrh.net; [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 4:33:05 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Ms. Jeng,

On behalf of West Basin Municipal Water District, I want to thank the City of Rolling Hills for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, we look forward to your participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@westbasin.org)
To: joe.hoefgen@redondo.org
Cc: ted.semaan@redondo.org; [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 4:29:31 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Joe,

On behalf of West Basin Municipal Water District, I want to thank the City of Redondo Beach for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, we look forward to your participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@westbasin.org)
To: citymanager@pvestates.org; Lguglielmo@Pvestates.Org
Cc: Ccowley@Pvestates.Org; [Patrick Sheilids](mailto:Patrick.Sheilids@westbasin.org); [Julie Frazier-Mathews](mailto:Julie.Frazier-Mathews@westbasin.org); [Rob Morrow](mailto:Rob.Morrow@westbasin.org); [Matthew Veeh](mailto:Matthew.Veeh@westbasin.org)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 4:23:26 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Ms. Guglielmo,

On behalf of West Basin Municipal Water District, I want to thank the City of Palos Verdes Estates for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, we look forward to your participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@westbasin.org)
To: rfeldman@malibucity.org
Cc: RDuboux@malibucity.org; [Patrick Sheilds](mailto:Patrick.Sheilds@westbasin.org); [Julie Frazier-Mathews](mailto:Julie.Frazier-Mathews@westbasin.org); [Rob Morrow](mailto:Rob.Morrow@westbasin.org); [Matthew Veeh](mailto:Matthew.Veeh@westbasin.org)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 4:19:26 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Ms. Feldman,

On behalf of West Basin Municipal Water District, I want to thank the City of Malibu for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, we look forward to your participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@westbasin.org)
To: KChun@lawndalecity.org; dparsley@lawndalecity.org
Cc: [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 4:16:43 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Mr. Chun,

On behalf of West Basin Municipal Water District, I want to thank the City of Lawndale for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, we look forward to your participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@westbasin.org)
To: suja@hermosabch.org
Cc: [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 4:09:41 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Suja,

On behalf of West Basin Municipal Water District, I want to thank the City of Hermosa Beach for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, we look forward to your participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@cityofhawthorne.org)
To: elee@cityofhawthorne.org
Cc: [Iriarte, Gerardo](#); [Norris, Von](#); [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 4:07:23 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Mr. Lee,

On behalf of West Basin Municipal Water District, I want to thank the City of Culver City for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, we look forward to your participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@westbasin.org)
To: john.nachbar@culvercity.org
Cc: [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Matthew Veeh](#); [Rob Morrow](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 3:55:17 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Mr. Nachbar,

On behalf of West Basin Municipal Water District, I want to thank the City of Culver City for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, we look forward to your participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:EJ.Caldwell@westbasin.org)
To: SLLanders@carsonca.gov
Cc: [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 3:53:48 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Ms. Landers,

On behalf of West Basin Municipal Water District, I want to thank the City of Carson for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

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If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](#)
To: rbeste@wrd.org
Cc: [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 3:23:25 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Rob,

On behalf of West Basin Municipal Water District, I want to thank you and your staff for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, your team has provided great assistance, and we look forward to your continued participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](#)
To: [Russ Bryden](#); [drydman@dpw.lacounty.gov](#); [eballesteros@dpw.lacounty.gov](#); [KESKRIDGE@dpw.lacounty.gov](#)
Cc: [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 3:21:15 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Russ,

On behalf of West Basin Municipal Water District, I want to thank you and your staff for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, your team has provided great assistance, and we look forward to your continued participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@westbasin.org)
To: Knutting@gswater.com; ccpak@gswater.com; ALCHAVEZ@gswater.com
Cc: [Greg Young](mailto:Greg.Young@westbasin.org); [Jim Crowley](mailto:Jim.Crowley@westbasin.org); [Gwyn-Mohr Tully](mailto:Gwyn-Mohr.Tully@westbasin.org); [Patrick Sheilds](mailto:Patrick.Sheilds@westbasin.org); [Julie Frazier-Mathews](mailto:Julie.Frazier-Mathews@westbasin.org); [Rob Morrow](mailto:Rob.Morrow@westbasin.org); [Matthew Veeh](mailto:Matthew.Veeh@westbasin.org)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 3:11:59 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Kate,

On behalf of West Basin Municipal Water District, I want to thank Golden State Water, you, and your staff for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

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If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@westbasin.org)
To: c.dillon@lomitacity.com; m.andersen@lomitacity.com; philw@westaeng.com; jakec@westaeng.com
Cc: [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Matthew Veeh](#); [Rob Morrow](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 2:59:29 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Carla,

On behalf of West Basin Municipal Water District, I want to thank the City of Lomita, you, and your staff for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, your staff has provided great assistance, and we look forward to your continued participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@westbasin.org)
To: LAtwell@Cityofinglewood.org; [Thomas Lee](#); [Herda, Anthony](#)
Cc: [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 2:49:12 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Mr. Atwell,

On behalf of West Basin Municipal Water District, I want to thank the City of Inglewood, you, and your staff for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, your staff has provided great assistance, and we look forward to your continued participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell)
To: smitnick@elsegundo.org
Cc: aesparza@elsegundo.org; mwatkins@elsegundo.org; Patrick Shields; Julie Frazier-Mathews; Matthew Veeh; Rob Morrow
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 2:39:38 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Mr. Mitnick,

On behalf of West Basin Municipal Water District, I want to thank the City of El Segundo, you, and your staff for your ongoing support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, your staff has provided great assistance, and we look forward to your continued participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@westbasin.org)
To: mhurley@calwater.com; mbolzowski@calwater.org; rsorensen@calwater.com; scordone@calwater.com; darmendariz@calwater.com
Cc: [Patrick Sheilds](mailto:Patrick.Sheilds@westbasin.org); [Julie Frazier-Mathews](mailto:Julie.Frazier-Mathews@westbasin.org); [Matthew Veeh](mailto:Matthew.Veeh@westbasin.org); [Rob Morrow](mailto:Rob.Morrow@westbasin.org)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 2:25:39 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Dan and Michael,

On behalf of West Basin Municipal Water District, I want to thank California Water Service for your ongoing support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, your team has provided great assistance, and we look forward to your continued participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](#)
To: geoff.williamson@amwater.com; nina.miller; garry.hofer@amwater.com
Cc: [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Matthew Veeh](#); [Rob Morrow](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 2:22:20 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Garry Hofer,

On behalf of West Basin Municipal Water District, I want to thank you and your staff for your ongoing support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

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If you or your staff have any questions, please feel free to give me a call.

Sincerely,



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**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](#)
To: bmoe@citymb.info
Cc: sigoe@citymb.info; [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Matthew Veeh](#); [Rob Morrow](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 2:17:43 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Bruce Moe,

On behalf of West Basin Municipal Water District, I want to thank the City of Manhattan Beach, you, and your staff for your ongoing support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

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If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](#)
To: [Kelly Clark](#); bruce@lwaterkeeper.org
Cc: [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 5:07:02 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Kelly,

On behalf of West Basin Municipal Water District, I want to thank you for your interest in West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

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If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:eelee@cityofhawthorne.org)
To: eelee@cityofhawthorne.org
Cc: [Iriarte, Gerardo](#); [Norris, Von](#); [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: RE: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 4:13:19 PM
Importance: High

Dear Mr. Lee,

I apologize for the error in the previous message sent moments ago. Please know that we are very grateful for all the support we receive from the City of Hawthorne! As noted, per the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

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Sincerely,



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edwardc@westbasin.org

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MICHAEL CALABRIA
WEST BASIN MWD
17140 S AVALON BLVD
CARSON, CA 90746

COPY OF NOTICE

Notice Type: HRG NOTICE OF HEARING

Ad Description

DRAFT 2020 URBAN WATER MANAGEMENT PLAN DRAFT WATER SHORTAGE CONTINGENCY PLAN AND DRAFT APPENDIX 1 TO 2015

To the right is a copy of the notice you sent to us for publication in the LOS ANGELES SENTINEL. Please read this notice carefully and call us with any corrections. The Proof of Publication will be filed with the County Clerk, if required, and mailed to you after the last date below. Publication date(s) for this notice is (are):

05/27/2021 , 06/03/2021

The charge(s) for this order is as follows. An invoice will be sent after the last date of publication. If you prepaid this order in full, you will not receive an invoice.

Table with 2 columns: Description, Amount. Rows: Publication (\$988.32), Total (\$988.32)

CNS# 3473202

Notice of Public Hearing
DRAFT 2020 URBAN WATER MANAGEMENT PLAN, DRAFT WATER SHORTAGE CONTINGENCY PLAN, AND DRAFT APPENDIX I TO 2015 URBAN WATER MANAGEMENT PLAN

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Thursday, June 10, 2021 at 10:00 AM
Teleconference Participation Only
(GoToMeeting and Phone-In Number)

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The 2020 UWMP assesses West Basin's water resources portfolio, demands, and planning strategies over the next 25 years, as a requirement set forth by the California Department of Water Resources. The draft

2020 UWMP complies with state law requiring urban water suppliers to prepare and update urban water management plans every five years.

The draft WSCP describes how West Basin is prepared to respond to a variety of water shortage conditions. West Basin's draft WSCP satisfies the requirements of the California Water Code.

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Final drafts of the 2020 UWMP, WSCP, and Appendix I to the 2015 UWMP may be viewed on the West Basin website at www.westbasin.org. Public input is welcomed and will be considered prior to finalizing the 2020 UWMP, WSCP, and Appendix I to the 2015 UWMP. All written comments must be received by 5:00 PM PDT on June 9, 2021.

For more information, or to provide comments on the draft 2020 UWMP, draft WSCP, and draft Appendix I to the 2015 UWMP, please contact E.J. Caldwell, Manager of Water Policy and Resources Development at edwardc@westbasin.org. 5/27, 6/3/21

CNS-3473202#
LOS ANGELES SENTINEL



Aviso de Audiencia Pública

BORRADOR DEL PLAN DE GESTIÓN DE AGUAS URBANAS 2020, BORRADOR DEL PLAN DE CONTINGENCIA POR ESCASEZ DEL AGUA, Y BORRADOR DEL APÉNDICE I PARA EL PLAN DE GESTIÓN DE AGUAS URBANAS 2015

La Junta de Directores de West Basin Municipal Water District (West Basin) llevará a cabo una audiencia pública el **lunes 10 de junio de 2021 a las 10:00 AM**, para recibir comentarios sobre el borrador del Plan de Gestión del Agua Urbana (UWMP, por sus siglas en inglés) del Distrito, el borrador del Plan de Contingencia por Escasez de Agua (WSCP, por sus siglas en inglés) y el borrador del Apéndice I como un adendum a sus UWMP de 2015.

La audiencia pública se llevará a cabo durante una reunión Especial de la Junta de West Basin. De conformidad con las Ordenes Ejecutivas del Gobernador del 12 de marzo de 2020, esta reunión será presentada por teleconferencia, sin que se proporcione una ubicación física para la reunión. Aquí se proporcionan los detalles de la reunión:

Junta de Directores de West Basin: Reunión Especial de la Junta

Jueves 10 de junio de 2021 a las 10:00 AM

Solo Participación en Teleconferencia (GoToMeeting y Número con Llamadas)

La audiencia pública será transmitida en vivo a través de GoToMeeting y también será grabada. Se puede acceder a la reunión utilizando el siguiente enlace en el sitio web de West Basin: <http://wbsmwdca.zoom2.com/Join?pwd=93493493> (Consulte este sitio web para detalles adicionales, incluyendo la agenda final y el paquete de la agenda).

El UWMP de 2020 evalúa la cartera de recursos hídricos de West Basin, y las estrategias de planificación durante los próximos 25 años, como un requisito establecido por el Departamento de Recursos Hídricos de California. El borrador del UWMP de 2020 cumple con la ley estatal que requiere que los proveedores de agua urbana preparen y actualicen los planes de gestión de agua urbana cada cinco años.

El borrador WSCP describe cómo el West Basin está preparada para responder a una variedad de condiciones de escasez de agua. El borrador WSCP de West Basin satisface los requisitos del Código de Aguas de California.

El borrador del Apéndice I al UWMP de 2015 y el borrador del Apéndice D al UWMP de 2020 incluye todos los elementos descritos en la Política del Plan Delta WR P1, Reducir la Dependencia Delta a Través de la Autosuficiencia Regional Mejorada del Agua (Código de Regs. De Cal. tit. 23, § 5003) que deben ser incluidos en un UWMP del proveedor de agua para respaldar una certificación de consistencia para una futura acción cubierta.

Los borradores finales del UWMP de 2020, WSCP, y el Apéndice I al UWMP de 2015 pueden ser vistos en el sitio web de Basin West en www.wbasin.org. Las aportaciones del público son bienvenidas y serán consideradas antes de finalizar el UWMP de 2020, WSCP y el Apéndice I al UWMP de 2015. **Todos los comentarios escritos deben ser recibidos antes de las 5:00 PM PDT del 9 de junio de 2021.**

Para obtener más información, o para proporcionar comentarios sobre el borrador UWMP de 2020, el borrador WSCP, y el borrador del Apéndice I al UWMP de 2015, comuníquese con E.J. Caldwell, Gerente de Desarrollo de Recursos y Políticas del Agua en ecaldwell@wbasin.org.

Notice of Public Hearing

DRAFT 2020 URBAN WATER MANAGEMENT PLAN, DRAFT WATER SHORTAGE CONTINGENCY PLAN, AND DRAFT APPENDIX I TO 2015 URBAN WATER MANAGEMENT PLAN

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Notice of Public Hearing

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Notice of Public Hearing

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Published The Malibu Times 5/27, 6/3/21

E

Attachment E: Adoption Resolution

D

Delta Reliance

Technical Memorandum

DRAFT



Date: 5/25/2021

To: E.J. Caldwell
West Basin Municipal Water District

CC: Matt Veeh (WBMWD)

Prepared by: Rob Morrow, P.E., Heather Freed, P.E.

Project: 2020 UWMP

SUBJECT: QUANTIFYING REGIONAL SELF-RELIANCE AND REDUCED RELIANCE ON WATER SUPPLIES FROM THE DELTA WATERSHED

1 Background

Under the Sacramento-San Joaquin Delta Reform Act of 2009, state and local public agencies proposing a covered action in the Delta, prior to initiating the implementation of that action, must prepare a written certification of consistency with detailed findings as to whether the covered action is consistent with applicable Delta Plan policies and submit that certification to the Delta Stewardship Council. Anyone may appeal a certification of consistency, and if the Delta Stewardship Council grants the appeal, the covered action may not be implemented until the agency proposing the covered action submits a revised certification of consistency, and either no appeal is filed, or the Delta Stewardship Council denies the subsequent appeal.

An urban water supplier that anticipates participating in or receiving water from a proposed covered action such as a multi-year water transfer, conveyance facility, or new diversion that involves transferring water through, exporting water from, or using water in the Delta should provide information in their 2015 and 2020 Urban Water Management Plans (UWMPs) that can then be used in the covered action process to demonstrate consistency with Delta Plan Policy WR P1, Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance (WR P1).

WR P1 details what is needed for a covered action to demonstrate consistency with reduced reliance on the Delta and improved regional self-reliance. WR P1 subsection (a) states that:

(a) Water shall not be exported from, transferred through, or used in the Delta if all of the following apply:

(1) One or more water suppliers that would receive water as a result of the export, transfer, or use have failed to adequately contribute to reduced reliance on the Delta and improved regional self-reliance consistent with all of the requirements listed in paragraph (1) of subsection (c);

(2) That failure has significantly caused the need for the export, transfer, or use; and

(3) The export, transfer, or use would have a significant adverse environmental impact in the Delta.

WR P1 subsection (c)(1) further defines what adequately contributing to reduced reliance on the Delta means in terms of (a)(1) above.

(c)(1) Water suppliers that have done all the following are contributing to reduced reliance on the Delta and improved regional self-reliance and are therefore consistent with this policy:

(A) Completed a current Urban or Agricultural Water Management Plan (Plan) which has been reviewed by the California Department of Water Resources for compliance with the applicable requirements of Water Code Division 6, Parts 2.55, 2.6, and 2.8;

(B) Identified, evaluated, and commenced implementation, consistent with the implementation schedule set forth in the Plan, of all programs and projects included in the Plan that are locally cost effective and technically feasible which reduce reliance on the Delta; and

(C) Included in the Plan, commencing in 2015, the expected outcome for measurable reduction in Delta reliance and improvement in regional self-reliance. The expected outcome for measurable reduction in Delta reliance and improvement in regional self-reliance shall be reported in the Plan as the reduction in the amount of water used, or in the percentage of water used, from the Delta watershed. For the purposes of reporting, water efficiency is considered a new source of water supply, consistent with Water Code section 1011(a).

The analysis and documentation provided below include all the elements described in WR P1(c)(1) that need to be included in a water supplier's UWMP to support a certification of consistency for a future covered action.

2 Demonstration of Regional Self-Reliance

The methodology used to determine West Basin's improved regional self-reliance is consistent with the approach detailed in DWR's UWMP Guidebook Appendix C, including the use of narrative justifications for the accounting of supplies and the documentation of specific data sources. Some of the key assumptions underlying West Basin's demonstration of reduced reliance include:

- All data were obtained from the current 2020 UWMP or previously adopted UWMPs and represent average or normal water year conditions.
- All analyses were conducted at the service area level, and all data reflect the total contributions of Metropolitan and its members as well as their customers.
- No projects or programs that are described in the UWMPs as "Projects Under Development" were included in the accounting of supplies.

Baseline and Expected Outcomes

In order to calculate the expected outcomes for measurable reduction in Delta reliance and improved regional self-reliance, a baseline is needed to compare against. This analysis uses a normal water year representation of 2010 as the baseline, which is consistent with the approach described in the Guidebook Appendix C. Data for the 2010 baseline were taken from West Basin's 2005 UWMP as the UWMPs generally do not provide normal water year data for the year that they are adopted (i.e., 2005 UWMP forecasts begin in 2010, 2010 UWMP forecasts begin in 2015, and so on).

Consistent with the 2010 baseline data approach, the expected outcomes for reduced Delta reliance and improved regional self-reliance for 2015 and 2020 were taken from West Basin’s 2010 and 2015 UWMPs respectively. Expected outcomes for 2025-2045 are from the current 2020 UWMP. Documentation of the specific data sources and assumptions are included in the discussions below.

Service Area Demands without Water Use Efficiency

In alignment with the Guidebook Appendix C, this analysis uses normal water year demands, rather than normal water year supplies to calculate expected outcomes in terms of the percentage of water used. Using normal water year demands serves as a proxy for the amount of supplies that would be used in a normal water year, which helps alleviate issues associated with how supply capability is presented to fulfill requirements of the UWMP Act versus how supplies might be accounted for to demonstrate consistency with WR P1.

Because WR P1 considers water use efficiency savings a source of water supply, water suppliers such as West Basin that do not explicitly quantify water use efficiency savings in their UWMPs can calculate their embedded water use efficiency savings based on changes in forecasted per capita water use since the baseline.

Agencies that explicitly calculate and report water use efficiency savings in their UWMP will need to make an adjustment to properly reflect normal water year demands in the calculation of reduced reliance. As explained in the Guidebook Appendix C, water use efficiency savings must be added back to the normal year demands to represent demands without water use efficiency savings accounted for; otherwise the effect of water use efficiency savings on regional self-reliance would be overestimated. Table 1 shows the results of this adjustment for West Basin. Supporting narratives and documentation for all the data shown in Table 1 are provided below.

Service Area Demands with Water Use Efficiency

The service area demands shown in Table 1 represent the total water demands for West Basin’s service area, including: 1) municipal and industrial (M&I) demands; and 2) replenishment demands. The M&I demand data shown in Table 1 were collected from the following sources:

- Baseline (2010): West Basin 2005 UWMP, Table ES-1
- 2015: West Basin 2010 UWMP, Table ES-4
- 2020: West Basin 2015 UWMP, Table ES-3
- 2025-2045: West Basin 2020 UWMP, Figure ES-3

The replenishment demand data shown in Table 1 were collected from the following sources:

- Baseline (2010): West Basin 2005 UWMP, Table ES-1
- 2015: West Basin 2010 UWMP, Table 3-5
- 2020: West Basin 2015 UWMP, Table 4-7
- 2025-2045: West Basin 2020 UWMP, Table ES-1

Non-Potable Water Demands

The non-potable water demand data shown in Table 1 represent recycled water demand estimates from West Basin’s Edward C. Little Water Recycling Facility and its satellite facilities for use in West Basin’s service area collected from the following sources:

- Baseline (2010): West Basin 2005 UWMP, Table ES-1
- 2015: West Basin 2010 UWMP, Table ES-4
- 2020: West Basin 2015 UWMP, Table ES-3
- 2025-2045: West Basin 2020 UWMP, Figure ES-4

Potable Service Area Demands with Water Use Efficiency

Calculated by subtracting no “Non-Potable Water Demands” from “Service Area Demands with Water Use Efficiency.”

Service Area Population

The population data shown in Table 1 were collected from the following sources:

- Baseline (2010): West Basin 2010 UWMP, Table 2-2
- 2015: West Basin 2015 UWMP, Table 2-1
- 2020-2045: West Basin 2020 UWMP, Table 3-3

Estimated Water Use Efficiency Since Baseline

Calculated using “Potable Service Area Demands with Water Use Efficiency” divided by “Service Area Population” and then calculating Estimated Water Use Efficiency Since Baseline by comparing with 2010 Per Capita Water Use.

Service Area Water Demands without Water Use Efficiency

Add “Service Area Demands with Water Use Efficiency” to Estimated Water Use Efficiency Since Baseline.”

Supplies Contributing to Regional Self-Reliance

For a covered action to demonstrate consistency with the Delta Plan, WR P1 subsection (c)(1)(C) states that water suppliers must report the expected outcomes for measurable improvement in regional self-reliance. Table 2 shows expected outcomes for supplies contributing to regional self-reliance both in amount and as a percentage. The numbers shown in Table 2 represent efforts to improve regional self-reliance for West Basin’s entire service area and include the total contributions of West Basin and its customers. Supporting narratives and documentation for all of the data shown in Table 2 are provided below.

The results shown in Table 2 demonstrate that West Basin’s service area is measurably improving its regional self-reliance. In the near-term (2025), the expected outcome for normal water year regional self-reliance is expected to increase by 44,000 AFY from the 2010 baseline; this represents an increase of about 17 percent of 2025 normal water year retail demands. In the long-term (2045), the expected outcome for normal water year regional self-reliance is expected to increase by more than 62,000 AFY from the 2010 baseline, this represents an increase of about 21 percent of 2045 normal water year retail demands (Table 2).

Water Use Efficiency

The water use efficiency information shown in Table 2 is taken directly from Table 1.

Water Recycling

The water recycling values shown in Table 2 are taken directly from the non-potable water demands in Table 1.

Advanced Water Technologies

The advanced water technologies data shown in Table 2 includes production from West Basin's C. Marvin Brewer Desalter, as described in Chapter 6 of West Basin's 2020 UWMP.

Local and Regional Water Supply and Storage Programs

The local and regional water supply and storage programs data shown in Table 2 represent groundwater pumping estimates by entities within West Basin's service area and were estimated from the following sources:

- Baseline (2010): West Basin 2005 UWMP, Table ES-1
- 2015: West Basin 2010 UWMP, Table ES-4
- 2020: West Basin 2015 UWMP, Table ES-3
- 2025-2045: West Basin 2020 UWMP, Figure ES-4

Other Programs and Projects that Contribute to Regional Self-Reliance

Other programs and projects that contribute to regional self-reliance shown in Table 2 include West Basin deliveries of advanced treated recycled water to the West Coast Basin Barrier for injection into the West Coast Groundwater Basin. The use of recycled water offsets the use of imported water for replenishment. The recycled water replenishment estimates are from the following sources:

- Baseline (2010): West Basin 2005 UWMP, Table ES-1
- 2015: West Basin 2010 UWMP, Table 3-5
- 2020: West Basin 2015 UWMP, Table 4-7
- 2025-2045: West Basin 2020 UWMP, Table ES-1

3 Demonstration of Reduced Reliance on the Delta

Metropolitan's service area, as a whole, reduces reliance on the Delta through investments in non-Delta water supplies, local water supplies, and regional and local demand management measures. Metropolitan's member agencies coordinate reliance on the Delta through their membership in Metropolitan, a regional cooperative providing wholesale water service to its 26 member agencies. Accordingly, regional reliance on the Delta can only be measured regionally—not by individual Metropolitan member agencies and not by the customers of those member agencies.

Metropolitan's member agencies, and those agencies' customers, indirectly reduce reliance on the Delta through their collective efforts as a cooperative. Metropolitan's member agencies do not control the amount of Delta water they receive from Metropolitan. Metropolitan manages a statewide integrated conveyance system

consisting of its participation in the State Water Project (SWP), its Colorado River Aqueduct (CRA) including Colorado River water resources, programs and water exchanges, and its regional storage portfolio. Along with the SWP, CRA, storage programs, and Metropolitan's conveyance and distribution facilities, demand management programs increase the future reliability of water resources for the region. In addition, demand management programs provide system-wide benefits by decreasing the demand for imported water, which helps to decrease the burden on the district's infrastructure and reduce system costs, and free up conveyance capacity to the benefit of all member agencies.

Metropolitan's costs are funded almost entirely from its service area, with the exception of grants and other assistance from government programs. Most of Metropolitan's revenues are collected directly from its member agencies. Properties within Metropolitan's service area pay a property tax that currently provides approximately 8 percent of the fiscal year 2021 annual budgeted revenues. The rest of Metropolitan's costs are funded through rates and charges paid by Metropolitan's member agencies for the wholesale services it provides to them.¹ Thus, Metropolitan's member agencies fund nearly all operations Metropolitan undertakes to reduce reliance on the Delta, including Colorado River Programs, storage facilities, Local Resources Programs and Conservation Programs within Metropolitan's service area.

Because of the integrated nature of Metropolitan's systems and operations, and the collective nature of Metropolitan's regional efforts, it is infeasible to quantify each of Metropolitan member agencies' individual reliance on the Delta. It is infeasible to attempt to segregate an entity and a system that were designed to work as an integrated regional cooperative.

In addition to the member agencies funding Metropolitan's regional efforts, they also invest in their own local programs to reduce their reliance on any imported water. Moreover, the customers of those member agencies may also invest in their own local programs to reduce water demand. However, to the extent those efforts result in reduction of demands on Metropolitan, that reduction does not equate to a like reduction of reliance on the Delta. Demands on Metropolitan are not commensurate with demands on the Delta because most of Metropolitan member agencies receive blended resources from Metropolitan as determined by Metropolitan—not the individual member agency—and for most member agencies, the blend varies from month-to-month and year-to-year due to hydrology, operational constraints, use of storage and other factors.

Attachment 1 further addresses the infeasibility of accounting supplies from the delta watershed for metropolitan's member agencies and their customers.

4 Summary of Expected Outcomes for Reduced Reliance on the Delta

As stated in WR P1(c)(1)(C), the policy requires that, commencing in 2015, UWMPs include expected outcomes for measurable reduction in Delta reliance and improved regional self-reliance. WR P1 further states that those

¹ A standby charge is collected from properties within the service areas of 21 of Metropolitan's 26 member agencies, ranging from \$5 to \$14.20 per acre annually, or per parcel if smaller than an acre. Standby charges go towards those member agencies' obligations to Metropolitan for the Readiness-to-Serve Charge. The total amount collected annually is approximately \$43.8 million, approximately 2 percent of Metropolitan's fiscal year 2021 annual budgeted revenues.
5/25/2021

outcomes shall be reported in the UWMP as the reduction in the amount of water used, or in the percentage of water used, from the Delta.

The expected outcomes for West Basin Municipal Water District's (West Basin's) Delta reliance and regional self-reliance were developed using the approach and guidance described in Appendix C of DWR's Urban Water Management Plan Guidebook 2020 (Guidebook Appendix C) issued in March 2020.

Regional Self-Reliance

For Regional Self-Reliance, the data used in this analysis represent the total regional efforts of West Basin and its customers and were developed in conjunction with Metropolitan as part of the UWMP coordination process. In accordance with UMWP requirements, West Basin's customers also report demands and supplies for their service areas in their respective UWMPs. The data reported by those agencies are not additive to the regional totals shown in West Basin's UWMP, rather their reporting represents subtotals of the regional total and should be considered as such for the purposes of determining regional self-reliance.

The following provides a summary of the near-term (2025) and long-term (2045) expected outcomes for West Basin's regional self-reliance.

- Near-term (2025) – Normal water year regional self-reliance is expected to increase by 44,000 AFY from the 2010 baseline; this represents an increase of about 17 percent of 2025 normal water year retail demands (Table 2).
- Long-term (2045) – Normal water year regional self-reliance is expected to increase by more than 62,000 AFY from the 2010 baseline, this represents an increase of about 21 percent of 2045 normal water year retail demands (Table 2).

The results show that as a region, West Basin and its customers are measurably reducing reliance on the Delta and improving regional self-reliance, both as an amount of water used and as a percentage of water used.

Reduced Reliance on Supplies from the Delta Watershed

For reduced reliance on supplies from the Delta Watershed, the data used in this analysis represent the total regional efforts of Metropolitan and its member agencies (e.g., West Basin) and their customers (many of them retail agencies), and were developed in conjunction with West Basin and other Metropolitan member agencies as part of the UWMP coordination process (as described in Section 5 of Metropolitan's 2020 UWMP). In accordance with UMWP requirements, Metropolitan's member agencies and their customers (many of them retail agencies) also report demands and supplies for their service areas in their respective UWMPs. The data reported by those agencies are not additive to the regional totals shown in Metropolitan's UWMP, rather their reporting represents subtotals of the regional total and should be considered as such for the purposes of determining reduced reliance on the Delta.

While the demands that Metropolitan's member agencies and their customers report in their UWMP's are a good reflection of the demands in their respective service areas, they do not adequately represent each water suppliers' contributions to reduced reliance on the Delta. In order to calculate and report their reliance on water supplies from the Delta watershed, water suppliers that receive water from the Delta through other regional or wholesale water suppliers would need to determine the amount of Delta water that they receive from the regional or

wholesale supplier. Two specific pieces of information are needed to accomplish this, first is the quantity of demands on the regional or wholesale water supplier that accurately reflect a supplier's contributions to reduced reliance on the Delta and second is the quantity of a supplier's demands on the regional or wholesale water supplier that are met by supplies from the Delta watershed.

For water suppliers that make investments in regional projects or programs it may be infeasible to quantify their demands on the regional or wholesale water supplier in a way that accurately reflects their individual contributions to reduced reliance on the Delta. Due to the extensive, long-standing and successful implementation of regional demand management and local resource incentive programs in Metropolitan's service area, this infeasibility holds true for Metropolitan's members as well their customers. **For Metropolitan's service area, reduced reliance on supplies from the Delta watershed can only be accurately accounted at the regional level.** This is further discussed in Attachment 1.

The following provides a summary of the near-term (2025) and long-term (2045) expected outcomes for Metropolitan's Delta reliance on supplies from the Delta watershed:

- Near-term (2025) – Normal water year reliance on supplies from the Delta watershed decreased by 301,000 AF from the 2010 baseline, this represents a decrease of 3 percent of 2025 normal water year retail demands (Table 3).
- Long-term (2045) – Normal water year reliance on supplies from the Delta watershed decreased by 314,000 TAF from the 2010 baseline, this represents a decrease of just over 5 percent of 2045 normal water year retail demands (Table 3).

The results show that as a region, Metropolitan and its members (including West Basin) as well as their customers are measurably reducing reliance on the Delta and improving regional self-reliance, both as an amount of water used and as a percentage of water used.

5 UWMP Implementation

In addition to the analysis and documentation described above, WR P1 subsection (c)(1)(B) requires that all programs and projects included in the UWMP that are locally cost-effective and technically feasible, which reduce reliance on the Delta, are identified, evaluated, and implemented consistent with the implementation schedule. WR P1 (c)(1)(B) states that:

(B) Identified, evaluated, and commenced implementation, consistent with the implementation schedule set forth in the Plan, of all programs and projects included in the Plan that are locally cost effective and technically feasible which reduce reliance on the Delta[.]

In accordance with Water Code Section 10631(f), water suppliers must already include in their UWMP a detailed description of expected future projects and programs that they may implement to increase the amount of water supply available to them in normal and single-dry water years and for a period of drought lasting five consecutive years. The UWMP description must also identify specific projects, include a description of the increase in water supply that is expected to be available from each project, and include an estimate regarding the implementation timeline for each project or program.

Chapter 6 of West Basin’s 2020 UWMP summarizes the implementation plan and continued progress in developing a diversified water portfolio to meet the region’s water needs.

6 2015 UWMP Appendix I

The information contained in this appendix is also intended to be a new Appendix I attached to West Basin’s 2015 UWMP consistent with WR P1 subsection (c)(1)(C) (Cal. Code Regs. tit. 23, § 5003). West Basin provided notice of the availability of the draft 2020 UWMP, 2021 WSCP, and a new Appendix I to the 2015 UWMP and the public hearing to consider adoption of the documents in accordance with CWC Sections 10621(b) and 10642, and Government Code Section 6066, and Chapter 17.5 (starting with Section 7290) of Division 7 of Title 1 of the Government Code. The public review drafts of the 2020 UWMP, Appendix I to the 2015 UWMP, and the 2021 WSCP were posted on West Basin’s website, westbasin.org, on April 6, 2021, more than 60 days in advance of the public hearing on June 10, 2021. The notice of availability of the documents was sent to West Basin’s customers, as well as cities and counties in West Basin’s service area. Copies of the notification letter sent to the customers and cities and counties in West Basin’s service area are included in the 2020 UWMP Appendix E. Thus, this Appendix D to West Basin’s 2020 UWMP, which was adopted with West Basin’s 2020 UWMP, will also be recognized and treated as Appendix I to West Basin’s 2015 UWMP.

West Basin held the public hearing for the draft 2020 UWMP, draft Appendix I to the 2015 UWMP, and draft 2021 WSCP on June 10, 2021, at a regular Board of Directors meeting, held online due to COVID-19 concerns. On June 28, 2021, West Basin’s Board of Directors determined that the 2020 UWMP and the 2021 WSCP accurately represent the water resources plan for West Basin’s service area. In addition, West Basin’s Board of Directors determined that Appendix I to both the 2015 UWMP and the 2020 UWMP includes all of the elements described in Delta Plan Policy WR P1, Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance (Cal. Code Regs. tit. 23, § 5003), which need to be included in a water supplier’s UWMP to support a certification of consistency for a future covered action. As stated in Resolutions XXXX, XXXX, and XXXX, the West Basin Board of Directors adopted the 2020 UWMP, Appendix I to the 2015 UWMP, and the 2021 WSCP and authorized their submittal to the State of California. Copies of the resolutions are included in the 2020 UWMP Appendix F,

Table 1. Calculation of Service Area Water Demands without Water Use Efficiency (UWMP Table C-1 and Table C-2)

Table C-1: Optional Calculation of Water Use Efficiency -To be completed if Water Supplier does not specifically estimate Water Use Efficiency as a supply								
Service Area Water Use Efficiency Demands (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Service Area Water Demands with Water Use Efficiency Accounted For	224,348	197,495	178,413	171,520	180,260	190,550	195,760	195,860
Non-Potable Water Demands	39,348	33,348	38,894	50,300	60,700	70,700	76,300	76,300
Potable Service Area Demands with Water Use Efficiency Accounted For	185,000	164,147	139,519	121,220	119,560	119,850	119,460	119,560
Total Service Area Population								
	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Service Area Population	853,377	813,000	829,000	869,252	880,718	893,089	902,163	913,615
Water Use Efficiency Since Baseline (Acre-Feet)								
	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Per Capita Water Use (GPCD)	194	180	150	124	121	120	118	117
Change in Per Capita Water Use from Baseline (GPCD)		(13)	(43)	(69)	(72)	(74)	(75)	(77)
Estimated Water Use Efficiency Since Baseline		12,100	40,196	67,221	71,367	73,759	76,116	78,499
Table C-2: Calculation of Service Area Water Demands Without Water Use Efficiency								
	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Total Service Area Water Demands (Acre-Feet)								
Service Area Water Demands with Water Use Efficiency Accounted For	224,348	197,495	178,413	171,520	180,260	190,550	195,760	195,860
Reported Water Use Efficiency or Estimated Water Use Efficiency Since Baseline		12,100	40,196	67,221	71,367	73,759	76,116	78,499
Service Area Water Demands without Water Use Efficiency Accounted For	224,348	209,595	218,609	238,741	251,627	264,309	271,876	274,359

Table 2. Calculation of Supplies Contributing to Regional Self-Reliance (UWMP Table C-3)

Water Supplies Contributing to Regional Self-Reliance (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Water Use Efficiency	-	12,100	40,196	67,221	71,367	73,759	76,116	78,499
Water Recycling	21,848	16,368	21,894	30,300	31,700	31,700	31,700	31,700
Stormwater Capture and Use								
Advanced Water Technologies	500	1,000	1,000	-	-	-	-	-
Conjunctive Use Projects								
Local and Regional Water Supply and Storage Projects	52,000	45,000	36,293	25,330	30,100	30,100	30,100	30,100
Other Programs and Projects the Contribute to Regional Self-Reliance	17,500	16,980	17,000	20,000	29,000	39,000	44,600	44,600
Water Supplies Contributing to Regional Self-Reliance	91,848	91,448	116,383	142,851	162,167	174,559	182,516	184,899

Service Area Water Demands without Water Use Efficiency (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Service Area Water Demands without Water Use Efficiency Accounted For	224,348	209,595	218,609	238,741	251,627	264,309	271,876	274,359

Change in Regional Self Reliance (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Water Supplies Contributing to Regional Self-Reliance	91,848	91,448	116,383	142,851	162,167	174,559	182,516	184,899
Change in Water Supplies Contributing to Regional Self-Reliance		(400)	24,535	51,003	70,319	82,711	90,668	93,051

Percent Change in Regional Self Reliance (As Percent of Demand w/out WUE)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Percent of Water Supplies Contributing to Regional Self-Reliance	40.9%	43.6%	53.2%	59.8%	64.4%	66.0%	67.1%	67.4%
Change in Percent of Water Supplies Contributing to Regional Self-Reliance		2.7%	12.3%	18.9%	23.5%	25.1%	26.2%	26.5%

Table 3. Reliance on Water Supplies from the Delta Watershed (Metropolitan UWMP Table A.11-3; UWMP Table C-4)

**Table A.11-3
 Reliance on Water Supplies from the Delta Watershed **DRAFT****

Water Supplies from the Delta Watershed (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045
CVP/SWP Contract Supplies	1,472,000	1,029,000	984,000	1,133,000	1,130,000	1,128,000	1,126,000	1,126,000
Delta/Delta Tributary Diversions	-	-	-	-	-	-	-	-
Transfers and Exchanges of Supplies from the Delta Watershed	20,000	44,000	91,000	58,000	52,000	52,000	52,000	52,000
Other Water Supplies from the Delta Watershed	-	-	-	-	-	-	-	-
Total Water Supplies from the Delta Watershed	1,492,000	1,073,000	1,075,000	1,191,000	1,182,000	1,180,000	1,178,000	1,178,000

Service Area Demands without Water Use Efficiency (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045
Service Area Demands without Water Use Efficiency Accounted For	5,493,000	5,499,000	5,219,000	4,938,000	5,019,000	5,143,000	5,248,000	5,361,000

Change in Supplies from the Delta Watershed (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045
Water Supplies from the Delta Watershed	1,492,000	1,073,000	1,075,000	1,191,000	1,182,000	1,180,000	1,178,000	1,178,000
Change in Supplies from the Delta Watershed	NA	(419,000)	(417,000)	(301,000)	(310,000)	(312,000)	(314,000)	(314,000)

Percent Change in Supplies from the Delta Watershed (As a Percent of Demand w/out WUE)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045
Percent of Supplies from the Delta Watershed	27.2%	19.5%	20.6%	24.1%	23.6%	22.9%	22.4%	22.0%
Change in Percent of Supplies from the Delta Watershed	NA	-7.6%	-6.6%	-3.0%	-3.6%	-4.2%	-4.7%	-5.2%

Attachment 1 - Infeasibility of Accounting Supplies from the Delta Watershed for Metropolitan's Member Agencies and their Customers

Infeasibility of Accounting Supplies from the Delta Watershed for Metropolitan's Member Agencies and their Customers

Metropolitan's service area, as a whole, reduces reliance on the Delta through investments in non-Delta water supplies, local water supplies, and regional and local demand management measures. Metropolitan's member agencies coordinate reliance on the Delta through their membership in Metropolitan, a regional cooperative providing wholesale water service to its 26 member agencies. Accordingly, regional reliance on the Delta can only be measured regionally—not by individual Metropolitan member agencies and not by the customers of those member agencies.

Metropolitan's member agencies, and those agencies' customers, indirectly reduce reliance on the Delta through their collective efforts as a cooperative. Metropolitan's member agencies do not control the amount of Delta water they receive from Metropolitan. Metropolitan manages a statewide integrated conveyance system consisting of its participation in the State Water Project (SWP), its Colorado River Aqueduct (CRA) including Colorado River water resources, programs and water exchanges, and its regional storage portfolio. Along with the SWP, CRA, storage programs, and Metropolitan's conveyance and distribution facilities, demand management programs increase the future reliability of water resources for the region. In addition, demand management programs provide system-wide benefits by decreasing the demand for imported water, which helps to decrease the burden on the district's infrastructure and reduce system costs, and free up conveyance capacity to the benefit of all member agencies.

Metropolitan's costs are funded almost entirely from its service area, with the exception of grants and other assistance from government programs. Most of Metropolitan's revenues are collected directly from its member agencies. Properties within Metropolitan's service area pay a property tax that currently provides approximately 8 percent of the fiscal year 2021 annual budgeted revenues. The rest of Metropolitan's costs are funded through rates and charges paid by Metropolitan's member agencies for the wholesale services it provides to them.¹ Thus, Metropolitan's member agencies fund nearly all operations Metropolitan undertakes to reduce reliance on the Delta, including Colorado River Programs, storage facilities, Local Resources Programs and Conservation Programs within Metropolitan's service area.

Because of the integrated nature of Metropolitan's systems and operations, and the collective nature of Metropolitan's regional efforts, it is infeasible to quantify each of Metropolitan member agencies' individual reliance on the Delta. It is infeasible to attempt to segregate an entity and a system that were designed to work as an integrated regional cooperative.

In addition to the member agencies funding Metropolitan's regional efforts, they also invest in their own local programs to reduce their reliance on any imported water. Moreover, the customers of those member agencies may also invest in their own local programs to reduce water demand. However, to the extent those efforts result in reduction of demands on Metropolitan, that reduction does not equate to a like reduction of reliance on the Delta. Demands on Metropolitan are not commensurate with demands on the Delta because most of Metropolitan member agencies receive blended resources from

¹ A standby charge is collected from properties within the service areas of 21 of Metropolitan's 26 member agencies, ranging from \$5 to \$14.20 per acre annually, or per parcel if smaller than an acre. Standby charges go towards those member agencies' obligations to Metropolitan for the Readiness-to-Serve Charge. The total amount collected annually is approximately \$43.8 million, approximately 2 percent of Metropolitan's fiscal year 2021 annual budgeted revenues.

Metropolitan as determined by Metropolitan—not the individual member agency—and for most member agencies, the blend varies from month-to-month and year-to-year due to hydrology, operational constraints, use of storage and other factors.

Colorado River Programs

As a regional cooperative of member agencies, Metropolitan invests in programs to ensure the continued reliability and sustainability of Colorado River supplies. Metropolitan was established to obtain an allotment of Colorado River water, and its first mission was to construct and operate the CRA. The CRA consists of five pumping plants, 450 miles of high voltage power lines, one electric substation, four regulating reservoirs, and 242 miles of aqueducts, siphons, canals, conduits and pipelines terminating at Lake Mathews in Riverside County. Metropolitan owns, operates, and manages the CRA. Metropolitan is responsible for operating, maintaining, rehabilitating, and repairing the CRA, and is responsible for obtaining and scheduling energy resources adequate to power pumps at the CRA's five pumping stations.

Colorado River supplies include Metropolitan's basic Colorado River apportionment, along with supplies that result from existing and committed programs, including supplies from the Imperial Irrigation District (IID)-Metropolitan Conservation Program, the implementation of the Quantification Settlement Agreement (QSA) and related agreements, and the exchange agreement with San Diego County Water Authority (SDCWA). The QSA established the baseline water use for each of the agreement parties and facilitates the transfer of water from agricultural agencies to urban uses. Since the QSA, additional programs have been implemented to increase Metropolitan's CRA supplies. These include the PVID Land Management, Crop Rotation, and Water Supply Program, as well as the Lower Colorado River Water Supply Project. The 2007 Interim Guidelines provided for the coordinated operation of Lake Powell and Lake Mead, as well as the Intentionally Created Surplus (ICS) program that allows Metropolitan to store water in Lake Mead.

Storage Investments/Facilities

Surface and groundwater storage are critical elements of Southern California's water resources strategy and help Metropolitan reduce its reliance on the Delta. Because California experiences dramatic swings in weather and hydrology, storage is important to regulate those swings and mitigate possible supply shortages. Surface and groundwater storage provide a means of storing water during normal and wet years for later use during dry years, when imported supplies are limited. The Metropolitan system, for purposes of meeting demands during times of shortage, regulating system flows, and ensuring system reliability in the event of a system outage, provides over 1,000,000 acre-feet of system storage capacity. Diamond Valley Lake provides 810,000 acre-feet of that storage capacity, effectively doubling Southern California's previous surface water storage capacity. Other existing imported water storage available to the region consists of Metropolitan's raw water reservoirs, a share of the SWP's raw water reservoirs in and near the service area, and the portion of the groundwater basins used for conjunctive-use storage.

Since the early twentieth century, DWR and Metropolitan have constructed surface water reservoirs to meet emergency, drought/seasonal, and regulatory water needs for Southern California. These reservoirs include Pyramid Lake, Castaic Lake, Elderberry Forebay, Silverwood Lake, Lake Perris, Lake Skinner, Lake Mathews, Live Oak Reservoir, Garvey Reservoir, Palos Verdes Reservoir, Orange County Reservoir, and Metropolitan's Diamond Valley Lake (DVL). Some reservoirs such as Live Oak Reservoir, Garvey Reservoir, Palos Verdes Reservoir, and Orange County Reservoir, which have a total combined capacity of about 3,500 AF, are used solely for regulating purposes. The total gross storage capacity for

the larger remaining reservoirs is 1,757,600 AF. However, not all of the gross storage capacity is available to Metropolitan; dead storage and storage allocated to others reduce the amount of storage that is available to Metropolitan to 1,665,200 AF.

Conjunctive use of the aquifers offers another important source of dry year supplies. Unused storage in Southern California groundwater basins can be used to optimize imported water supplies, and the development of groundwater storage projects allows effective management and regulation of the region's major imported supplies from the Colorado River and SWP. Over the years, Metropolitan has implemented conjunctive use through various programs in the service area; the following table lists the groundwater conjunctive use programs that have been developed in the region.

Program	Metropolitan Agreement Partners	Program Term	Max Storage AF	Dry-Year Yield AF/Yr
Long Beach Conjunctive Use Storage Project (Central Basin)	Long Beach	June 2002-2027	13,000	4,300
Foothill Area Groundwater Storage Program (Monkhill/ Raymond Basin)	Foothill MWD	February 2003-2028	9,000	3,000
Orange County Groundwater Conjunctive Use Program	MWDOC OCWD	June 2003-2028	66,000+	22,000
Chino Basin Conjunctive Use Programs	IEUA TVMWD Watermaster	June 2003-2028	100,000	33,000
Live Oak Basin Conjunctive Use Project (Six Basins)	TVMWD City of La Verne	October 2002-2027	3,000	1,000
City of Compton Conjunctive Use Project (Central Basin)	Compton	February 2005-2030	2,289	763
Long Beach Conjunctive Use Program Expansion in Lakewood (Central Basin)	Long Beach	July 2005-2030	3,600	1,200
Upper Claremont Basin Groundwater Storage Program (Six Basins)	TVMWD	Sept. 2005- 2030	3,000	1,000
Elsinore Basin Conjunctive Use Storage Program	Western MWD Elsinore Valley MWD	May 2008- 2033	12,000	4,000
TOTAL			211,889	70,263

Metropolitan Demand Management Programs

Demand management costs are Metropolitan's expenditures for funding local water resource development programs and water conservation programs. These Demand Management Programs incentivize the development of local water supplies and the conservation of water to reduce the need to import water to deliver to Metropolitan's member agencies. These programs are implemented below the delivery points between Metropolitan's and its member agencies' distribution systems and, as such, do not add any water to Metropolitan's supplies. Rather, the effect of these downstream programs is to

produce a local supply of water for the local agencies and to reduce demands by member agencies for water imported through Metropolitan's system. The following discussions outline how Metropolitan funds local resources and conservation programs for the benefit of all of its member agencies and the entire Metropolitan service area. Notably, the history of demand management by Metropolitan's member agencies and the local agencies that purchase water from Metropolitan's members has spanned more than four decades. The significant history of the programs is another reason it would be difficult to attempt to assign a portion of such funding to any one individual member agency.

Local Resources Programs

In 1982, Metropolitan began providing financial incentives to its member agencies to develop new local supplies to assist in meeting the region's water needs. Because of Metropolitan's regional distribution system, these programs benefit all member agencies regardless of project location because they help to increase regional water supply reliability, reduce demands for imported water supplies, decrease the burden on Metropolitan's infrastructure, reduce system costs and free up conveyance capacity to the benefit of all the agencies that rely on water from Metropolitan.

For example, the Groundwater Replenishment System (GWRS) operated by the Orange County Water District is the world's largest water purification system for indirect potable reuse. It was funded, in part, by Metropolitan's member agencies through the Local Resources Program. Annually, the GWRS produces approximately 103,000 acre-feet of reliable, locally controlled, drought-proof supply of high-quality water to recharge the Orange County Groundwater Basin and protect it from seawater intrusion. The GWRS is a premier example of a regional project that significantly reduced the need to utilize imported water for groundwater replenishment in Metropolitan's service area, increasing regional and local supply reliability and reducing the region's reliance on imported supplies, including supplies from the State Water Project.

Metropolitan's local resource programs have evolved through the years to better assist Metropolitan's member agencies in increasing local supply production. The following is a description and history of the local supply incentive programs.

Local Projects Program

In 1982, Metropolitan initiated the Local Projects Program (LPP), which provided funding to member agencies to facilitate the development of recycled water projects. Under this approach, Metropolitan contributed a negotiated up-front funding amount to help finance project capital costs. Participating member agencies were obligated to reimburse Metropolitan over time. In 1986, the LPP was revised, changing the up-front funding approach to an incentive-based approach. Metropolitan contributed an amount equal to the avoided State Water Project pumping costs for each acre-foot of recycled water delivered to end-use consumers. This funding incentive was based on the premise that local projects resulted in the reduction of water imported from the Delta and the associated pumping cost. The incentive amount varied from year to year depending on the actual variable power cost paid for State Water Project imports. In 1990, Metropolitan's Board increased the LPP contribution to a fixed rate of \$154 per acre-foot, which was calculated based on Metropolitan's avoided capital and operational costs to convey, treat, and distribute water, and included considerations of reliability and service area demands.

Groundwater Recovery Program

The drought of the early 1990s sparked the need to develop additional local water resources, aside from recycled water, to meet regional demand and increase regional water supply reliability. In 1991, Metropolitan conducted the Brackish Groundwater Reclamation Study which determined that large

amounts of degraded groundwater in the region were not being utilized. Subsequently, the Groundwater Recovery Program (GRP) was established to assist the recovery of otherwise unusable groundwater degraded by minerals and other contaminants, provide access to the storage assets of the degraded groundwater, and maintain the quality of groundwater resources by reducing the spread of degraded plumes.

Local Resources Program

In 1995, Metropolitan's Board adopted the Local Resources Program (LRP), which combined the LPP and GRP into one program. The Board allowed for existing LPP agreements with a fixed incentive rate to convert to the sliding scale up to \$250 per acre-foot, similar to GRP incentive terms. Those agreements that were converted to LRP are known as "LRP Conversions."

Competitive Local Projects Program

In 1998, the Competitive Local Resources Program (Competitive Program) was established. The Competitive Program encouraged the development of recycled water and recovered groundwater through a process that emphasized cost-efficiency to Metropolitan, timing new production according to regional need while minimizing program administration cost. Under the Competitive Program, agencies requested an incentive rate up to \$250 per acre-foot of production over 25 years under a Request for Proposals (RFP) for the development of up to 53,000 acre-feet per year of new water recycling and groundwater recovery projects. In 2003, a second RFP was issued for the development of an additional 65,000 acre-feet of new recycled water and recovered groundwater projects through the LRP.

Seawater Desalination Program

Metropolitan established the Seawater Desalination Program (SDP) in 2001 to provide financial incentives to member agencies for the development of seawater desalination projects. In 2014, seawater desalination projects became eligible for funding under the LRP, and the SDP was ended.

2007 Local Resources Program

In 2006, a task force comprised of member agency representatives was formed to identify and recommend program improvements to the LRP. As a result of the task force process, the 2007 LRP was established with a goal of 174,000 acre-feet per year of additional local water resource development. The new program allowed for an open application process and eliminated the previous competitive process. This program offered sliding scale incentives of up to \$250 per acre-foot, calculated annually based on a member agency's actual local resource project costs exceeding Metropolitan's prevailing water rate.

2014 Local Resources Program

A series of workgroup meetings with member agencies was held to identify the reasons why there was a lack of new LRP applications coming into the program. The main constraint identified by the member agencies was that the \$250 per acre-foot was not providing enough of an incentive for developing new projects due to higher construction costs to meet water quality requirements and to develop the infrastructure to reach end-use consumers located further from treatment plants. As a result, in 2014, the Board authorized an increase in the maximum incentive amount, provided alternative payment structures, included onsite retrofit costs and reimbursable services as part of the LRP, and added eligibility for seawater desalination projects. The current LRP incentive payment options are structured as follows:

- Option 1 – Sliding scale incentive up to \$340/AF for a 25-year agreement term
- Option 2 – Sliding scale incentive up to \$475/AF for a 15-year agreement term
- Option 3 – Fixed incentive up to \$305/AF for a 25-year agreement term

On-site Retrofit Programs

In 2014, Metropolitan's Board also approved the On-site Retrofit Pilot Program which provided financial incentives to public or private entities toward the cost of small-scale improvements to their existing irrigation and industrial systems to allow connection to existing recycled water pipelines. The On-site Retrofit Pilot Program helped reduce recycled water retrofit costs to the end-use consumer which is a key constraint that limited recycled water LRP projects from reaching full production capacity. The program incentive was equal to the actual eligible costs of the on-site retrofit, or \$975 per acre-foot of up-front cost, which equates to \$195 per acre-foot for an estimated five years of water savings (\$195/AF x 5 years) multiplied by the average annual water use in previous three years, whichever is less. The Pilot Program lasted two years and was successful in meeting its goal of accelerating the use of recycled water.

In 2016, Metropolitan's Board authorized the On-site Retrofit Program (ORP), with an additional budget of \$10 million. This program encompassed lessons learned from the Pilot Program and feedback from member agencies to make the program more streamlined and improve its efficiency. As of fiscal year 2019/20, the ORP has successfully converted 440 sites, increasing the use of recycled water by 12,691 acre-feet per year.

Stormwater Pilot Programs

In 2019, Metropolitan's Board authorized both the Stormwater for Direct Use Pilot Program and a Stormwater for Recharge Pilot Program to study the feasibility of reusing stormwater to help meet regional demands in Southern California. These pilot programs are intended to encourage the development, monitoring, and study of new and existing stormwater projects by providing financial incentives for their construction/retrofit and monitoring/reporting costs. These pilot programs will help evaluate the potential benefits delivered by stormwater capture projects and provide a basis for potential future funding approaches. Metropolitan's Board authorized a total of \$12.5 million for the stormwater pilot programs (\$5 million for the District Use Pilot and \$7.5 million for the Recharge Pilot).

Current Status and Results of Metropolitan's Local Resource Programs

Today, nearly one-half of the total recycled water and groundwater recovery production in the region has been developed with an incentive from one or more of Metropolitan's local resource programs. During fiscal year 2020, Metropolitan provided about \$13 million for production of 71,000 acre-feet of recycled water for non-potable and indirect potable uses. Metropolitan provided about \$4 million to support projects that produced about 50,000 acre-feet of recovered groundwater for municipal use. Since 1982, Metropolitan has invested \$680 million to fund 85 recycled water projects and 27 groundwater recovery projects that have produced a cumulative total of about 4 million acre-feet.

Conservation Programs

Metropolitan's regional conservation programs and approaches have a long history. Decades ago, Metropolitan recognized that demand management at the consumer level would be an important part of balancing regional supplies and demands. Water conservation efforts were seen as a way to reduce the need for imported supplies and offset the need to transport or store additional water into or within the Metropolitan service area. The actual conservation of water takes place at the retail consumer level. Regional conservation approaches have proven to be effective at reaching retail consumers throughout Metropolitan's service area and successfully implementing water saving devices, programs and practices. Through the pooling of funding by Metropolitan's member agencies, Metropolitan is able to engage in regional campaigns with wide-reaching impact. Regional investments in demand management programs, of which conservation is a key part along with local supply programs, benefit all member agencies regardless of project location. These programs help to increase regional water supply

reliability, reduce demands for imported water supplies, decrease the burden on Metropolitan's infrastructure, reduce system costs, and free up conveyance capacity to the benefit of all member agencies.

Incentive-Based Conservation Programs

Conservation Credits Program

In 1988, Metropolitan's Board approved the Water Conservation Credits Program (Credits Program). The Credits Program is similar in concept to the Local Projects Program (LPP). The purpose of the Credits Program is to encourage local water agencies to implement effective water conservation projects through the use of financial incentives. The Credits Program provides financial assistance for water conservation projects that reduce demands on Metropolitan's imported water supplies and require Metropolitan's assistance to be financially feasible.

Initially, the Credits Program provided 50 percent of a member agency's program cost, up to a maximum of \$75 per acre-foot of estimated water savings. The \$75 Base Conservation Rate was established based Metropolitan's avoided cost of pumping SWP supplies. The Base Conservation Rate has been revisited by Metropolitan's Board and revised twice since 1988, from \$75 to \$154 per acre-foot in 1990 and from \$154 to \$195 per acre-foot in 2005.

In fiscal year 2020 Metropolitan processed more than 30,400 rebate applications totaling \$18.9 million.

Member Agency Administered Program

Some member agencies also have unique programs within their service areas that provide local rebates that may differ from Metropolitan's regional program. Metropolitan continues to support these local efforts through a member agency administered funding program that adheres to the same funding guidelines as the Credits Program. The Member Agency Administered Program allows member agencies to receive funding for local conservation efforts that supplement, but do not duplicate, the rebates offered through Metropolitan's regional rebate program.

Water Savings Incentive Program

There are numerous commercial entities and industries within Metropolitan's service area that pursue unique savings opportunities that do not fall within the general rebate programs that Metropolitan provides. In 2012, Metropolitan designed the Water Savings Incentive Program (WSIP) to target these unique commercial and industrial projects. In addition to rebates for devices, under this program, Metropolitan provides financial incentives to businesses and industries that created their own custom water efficiency projects. Qualifying custom projects can receive funding for permanent water efficiency changes that result in reduced potable demand.

Non-Incentive Conservation Programs

In addition to its incentive-based conservation programs, Metropolitan also undertakes additional efforts throughout its service area that help achieve water savings without the use of rebates.

Metropolitan's non-incentive conservation efforts include:

- residential and professional water efficient landscape training classes
- water audits for large landscapes
- research, development and studies of new water saving technologies
- advertising and outreach campaigns
- community outreach and education programs
- advocacy for legislation, codes, and standards that lead to increased water savings

Current Status and Results of Metropolitan's Conservation Programs

Since 1990, Metropolitan has invested \$824 million in conservation rebates that have resulted in a cumulative savings of 3.27 million acre-feet of water. These investments include \$450 million in turf removal and other rebates during the last drought which resulted in 175 million square feet of lawn turf removed. During fiscal year 2020, 1.06 million acre-feet of water is estimated to have been conserved. This annual total includes Metropolitan's Conservation Credits Program; code-based conservation achieved through Metropolitan-sponsored legislation; building plumbing codes and ordinances; reduced consumption resulting from changes in water pricing; and pre-1990 device retrofits.

Infeasibility of Accounting Regional Investments in Reduced Reliance Below the Regional Level

The accounting of regional investments that contribute to reduced reliance on supplies from the Delta watershed is straightforward to calculate and report at the regional aggregate level. However, any similar accounting is infeasible for the individual member agencies or their customers. As described above, the region (through Metropolitan) makes significant investments in projects, programs and other resources that reduce reliance on the Delta. In fact, all of Metropolitan's investments in Colorado River supplies, groundwater and surface storage, local resources development and demand management measures that reduce reliance on the Delta are collectively funded by revenues generated from the member agencies through rates and charges.

Metropolitan's revenues cannot be matched to the demands or supply production history of an individual agency, or consistently across the agencies within the service area. Each project or program funded by the region has a different online date, useful life, incentive rate and structure, and production schedule. It is infeasible to account for all these things over the life of each project or program and provide a nexus to each member agency's contributions to Metropolitan's revenue stream over time. Accounting at the regional level allows for the incorporation of the local supplies and water use efficiency programs done by member agencies and their customers through both the regional programs and through their own specific local programs. As shown above, despite the infeasibility of accounting reduced Delta reliance below the regional level, Metropolitan's member agencies and their customers have together made substantial contributions to the region's reduced reliance.

References

<http://www.mwdh2o.com/WhoWeAre/Board/Board-Meeting/Board%20Archives/2017/12-Dec/Reports/064863458.pdf>

http://www.mwdh2o.com/PDF_About_Your_Water/Annual_Achievement_Report.pdf

<http://www.mwdh2o.com/WhoWeAre/Board/Board-Meeting/Board%20Archives/2016/12-Dec/Reports/064845868.pdf>

<http://www.mwdh2o.com/WhoWeAre/Board/Board-Meeting/Board%20Archives/2012/05%20-%20May/Letters/064774100.pdf>

<http://www.mwdh2o.com/WhoWeAre/Board/Board-Meeting/Board%20Archives/2020/10%20-%20Oct/Letters/10132020%20BOD%209-3%20B-L.pdf>

<http://www.mwdh2o.com/WhoWeAre/Board/Board-Meeting/Board%20Archives/2001/10-October/Letters/003909849.pdf>

[Link to Metropolitan's 2020 UWMP once final](#)

E

Notifications



17140 S. Avalon Blvd.
Carson, CA 90746

310-217-2411
www.westbasin.org

April 7, 2021

Notice of Public Hearing on the West Basin Municipal Water District Draft 2020 Urban Water Management Plan, Draft 2021 Water Shortage Contingency Plan, and Draft Appendix I to the 2015 UWMP

Dear Valued Customers and Stakeholders,

The West Basin Municipal Water District (West Basin) is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP) in compliance with the Urban Water Management Planning Act. In addition, West Basin is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

West Basin is required to notify its retailers as well as cities and counties within its service area that it is preparing its 2020 UWMP, 2021 WSCP, and Appendix I of the 2015 UWMP updates at least 60 days prior to holding a public hearing. The public hearing is scheduled as part of a West Basin Board meeting on **June 10, 2021 at 10:00 a.m. This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).**

This letter serves as West Basin's official public hearing notice and intent to adopt the 2020 UWMP, 2021 WSCP, and Appendix I of the 2015 UWMP before the July 1, 2021 deadline. A copy of West Basin's draft 2020 UWMP and WSCP will be available for review on the West Basin's website (www.westbasin.org) by May 27, 2021. West Basin will distribute a public draft review notification on or before May 25, 2021 with information on how to access the draft documents. Until that time, if you have any questions, comments, or input, please contact E.J. Caldwell, Water Policy & Resources Development Manager, via email at edwardc@westbasin.org or by phone at (310) 660-6286.

Sincerely,

A handwritten signature in blue ink that reads "Patrick Sheilds".

Patrick Sheilds
General Manager
West Basin Municipal Water District

BOARD OF DIRECTORS

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Donald L. Dear
Vice President

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Immediate Past President

GENERAL MANAGER: Patrick Sheilds

From: [E.J. Caldwell](mailto:E.J.Caldwell@torranceca.gov)
To: cbilezerian@torranceca.gov
Cc: CSCHAICH@TorranceCA.gov; [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: FW: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 4:59:03 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Craig,

On behalf of West Basin Municipal Water District, I want to thank the City of Torrance, you, and your staff for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, your staff has provided great assistance, and we look forward to your continued participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
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edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell)
To: GregG@rollinghillsestatesca.gov
Cc: sarahh@rollinghillsestatesca.gov; alexad@rollinghillsestatesca.gov; Patrick Sheilds; Julie Frazier-Mathews; [Matthew Veeh](#); [Rob Morrow](#)
Subject: FW: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 4:38:03 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Mr. Grammer,

On behalf of West Basin Municipal Water District, I want to thank the City of Rolling Hills Estates for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, we look forward to your participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



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From: [E.J. Caldwell](mailto:E.J.Caldwell@westbasin.org)
To: aram@rpvca.gov
Cc: kbanales@rpvca.gov; citymanager@rpvca.gov; [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: FW: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 4:26:55 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Mr. Mihranian,

On behalf of West Basin Municipal Water District, I want to thank the City of Rancho Palos Verdes for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, we look forward to your participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



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Manager**
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From: [E.J. Caldwell](mailto:E.J.Caldwell@cityofgardena.org)
To: citymanager.web@cityofgardena.org
Cc: [Patrick Sheilds](mailto:Patrick.Sheilds@cityofgardena.org); [Julie Frazier-Mathews](mailto:Julie.Frazier-Mathews@cityofgardena.org); [Rob Morrow](mailto:Rob.Morrow@cityofgardena.org); [Matthew Veeh](mailto:Matthew.Veeh@cityofgardena.org); nswweeney@cityofgardena.org; rdesantiago@cityofgardena.org
Subject: FW: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 4:00:56 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Mr. Osorio,

On behalf of West Basin Municipal Water District, I want to thank the City of Gardena for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, we look forward to your participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



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From: [E.J. Caldwell](#)
To: ccarrillo@mwdh2o.com; [Polyzos, Demetri J](#)
Cc: [Rob Morrow](#); [Matthew Veeh](#)
Subject: FW: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 5:15:16 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Demetri and Carlos,

On behalf of West Basin Municipal Water District, I want to thank you and the MWD for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, you have been very helpful, and we look forward to your continued participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



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Manager**
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edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@westbasin.org)
To: info@surfrider-southbay.org
Cc: craig@surfrider-southbay.org; [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 5:02:49 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Craig,

On behalf of West Basin Municipal Water District, I want to thank you and Surfrider for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, we look forward to your continued participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



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From: [E.J. Caldwell](mailto:ecaldwell@westbasin.org)
To: citymanager@weho.org; parevalo@weho.org
Cc: jrocco@weho.org; [Patrick Sheilds](mailto:psheilds@weho.org); [Julie Frazier-Mathews](mailto:jfrazier@weho.org); [Matthew Veeh](mailto:mveeh@weho.org); [Rob Morrow](mailto:rmorrow@weho.org)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 4:49:37 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Mr. Arevalo,

On behalf of West Basin Municipal Water District, I want to thank the City of West Hollywood for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, we look forward to your continued participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell)
To: ejeng@cityofrh.net
Cc: cviramontes@cityofrh.net; [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 4:33:05 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Ms. Jeng,

On behalf of West Basin Municipal Water District, I want to thank the City of Rolling Hills for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

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If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@westbasin.org)
To: joe.hoefgen@redondo.org
Cc: ted.semaan@redondo.org; [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 4:29:31 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Joe,

On behalf of West Basin Municipal Water District, I want to thank the City of Redondo Beach for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, we look forward to your participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@westbasin.org)
To: citymanager@pvestates.org; Lguglielmo@Pvestates.Org
Cc: Ccowley@Pvestates.Org; [Patrick Sheilids](mailto:Patrick.Sheilids@westbasin.org); [Julie Frazier-Mathews](mailto:Julie.Frazier-Mathews@westbasin.org); [Rob Morrow](mailto:Rob.Morrow@westbasin.org); [Matthew Veeh](mailto:Matthew.Veeh@westbasin.org)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 4:23:26 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Ms. Guglielmo,

On behalf of West Basin Municipal Water District, I want to thank the City of Palos Verdes Estates for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

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If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@westbasin.org)
To: rfeldman@malibucity.org
Cc: RDuboux@malibucity.org; [Patrick Sheilds](mailto:Patrick.Sheilds@westbasin.org); [Julie Frazier-Mathews](mailto:Julie.Frazier-Mathews@westbasin.org); [Rob Morrow](mailto:Rob.Morrow@westbasin.org); [Matthew Veeh](mailto:Matthew.Veeh@westbasin.org)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 4:19:26 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Ms. Feldman,

On behalf of West Basin Municipal Water District, I want to thank the City of Malibu for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

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If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@westbasin.org)
To: KChun@lawndalecity.org; dparsley@lawndalecity.org
Cc: [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 4:16:43 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Mr. Chun,

On behalf of West Basin Municipal Water District, I want to thank the City of Lawndale for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

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If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@westbasin.org)
To: suja@hermosabch.org
Cc: [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 4:09:41 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Suja,

On behalf of West Basin Municipal Water District, I want to thank the City of Hermosa Beach for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

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If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@cityofhawthorne.org)
To: elee@cityofhawthorne.org
Cc: [Iriarte, Gerardo](#); [Norris, Von](#); [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 4:07:23 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Mr. Lee,

On behalf of West Basin Municipal Water District, I want to thank the City of Culver City for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

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If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@westbasin.org)
To: john.nachbar@culvercity.org
Cc: [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Matthew Veeh](#); [Rob Morrow](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 3:55:17 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Mr. Nachbar,

On behalf of West Basin Municipal Water District, I want to thank the City of Culver City for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

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If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:EJ.Caldwell@westbasin.org)
To: SLLanders@carsonca.gov
Cc: [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 3:53:48 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Ms. Landers,

On behalf of West Basin Municipal Water District, I want to thank the City of Carson for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

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If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](#)
To: rbeste@wrd.org
Cc: [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 3:23:25 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Rob,

On behalf of West Basin Municipal Water District, I want to thank you and your staff for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, your team has provided great assistance, and we look forward to your continued participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](#)
To: [Russ Bryden](#); [drydman@dpw.lacounty.gov](#); [eballesteros@dpw.lacounty.gov](#); [KESKRIDGE@dpw.lacounty.gov](#)
Cc: [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 3:21:15 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Russ,

On behalf of West Basin Municipal Water District, I want to thank you and your staff for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

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If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@westbasin.org)
To: Knutting@gswater.com; ccpak@gswater.com; ALCHAVEZ@gswater.com
Cc: [Greg Young](mailto:Greg.Young@westbasin.org); [Jim Crowley](mailto:Jim.Crowley@westbasin.org); [Gwyn-Mohr Tully](mailto:Gwyn-Mohr.Tully@westbasin.org); [Patrick Sheilds](mailto:Patrick.Sheilds@westbasin.org); [Julie Frazier-Mathews](mailto:Julie.Frazier-Mathews@westbasin.org); [Rob Morrow](mailto:Rob.Morrow@westbasin.org); [Matthew Veeh](mailto:Matthew.Veeh@westbasin.org)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 3:11:59 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Kate,

On behalf of West Basin Municipal Water District, I want to thank Golden State Water, you, and your staff for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

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If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@westbasin.org)
To: c.dillon@lomitacity.com; m.andersen@lomitacity.com; philw@westaeng.com; jakec@westaeng.com
Cc: [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Matthew Veeh](#); [Rob Morrow](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 2:59:29 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Carla,

On behalf of West Basin Municipal Water District, I want to thank the City of Lomita, you, and your staff for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

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If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@westbasin.org)
To: LAtwell@Cityofinglewood.org; [Thomas Lee](#); [Herda, Anthony](#)
Cc: [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 2:49:12 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Mr. Atwell,

On behalf of West Basin Municipal Water District, I want to thank the City of Inglewood, you, and your staff for your continued support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, your staff has provided great assistance, and we look forward to your continued participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@westbasin.org)
To: smitnick@elsegundo.org
Cc: aesparza@elsegundo.org; mwatkins@elsegundo.org; Patrick Sheilds; [Julie Frazier-Mathews](#); [Matthew Veeh](#); [Rob Morrow](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 2:39:38 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Mr. Mitnick,

On behalf of West Basin Municipal Water District, I want to thank the City of El Segundo, you, and your staff for your ongoing support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

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If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:E.J.Caldwell@westbasin.org)
To: mhurley@calwater.com; mbolzowski@calwater.org; rsorensen@calwater.com; scordone@calwater.com; darmendariz@calwater.com
Cc: [Patrick Sheilds](mailto:Patrick.Sheilds@westbasin.org); [Julie Frazier-Mathews](mailto:Julie.Frazier-Mathews@westbasin.org); [Matthew Veeh](mailto:Matthew.Veeh@westbasin.org); [Rob Morrow](mailto:Rob.Morrow@westbasin.org)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 2:25:39 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Dan and Michael,

On behalf of West Basin Municipal Water District, I want to thank California Water Service for your ongoing support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, your team has provided great assistance, and we look forward to your continued participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](#)
To: geoff.williamson@amwater.com; nina.miller; garry.hofer@amwater.com
Cc: [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Matthew Veeh](#); [Rob Morrow](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 2:22:20 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Garry Hofer,

On behalf of West Basin Municipal Water District, I want to thank you and your staff for your ongoing support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

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If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](#)
To: bmoe@citymb.info
Cc: sigoe@citymb.info; [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Matthew Veeh](#); [Rob Morrow](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 2:17:43 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Bruce Moe,

On behalf of West Basin Municipal Water District, I want to thank the City of Manhattan Beach, you, and your staff for your ongoing support for West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, your staff has provided great assistance, and we look forward to your continued participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](#)
To: [Kelly Clark](#); bruce@lwaterkeeper.org
Cc: [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 5:07:02 PM
Attachments: [Notice Public Hearing West Basin MWD 2020 UWMP.pdf](#)
Importance: High

Dear Kelly,

On behalf of West Basin Municipal Water District, I want to thank you for your interest in West Basin's planning activities. As required by the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, we look forward to your continued participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

From: [E.J. Caldwell](mailto:elee@cityofhawthorne.org)
To: elee@cityofhawthorne.org
Cc: [Iriarte, Gerardo](#); [Norris, Von](#); [Patrick Sheilds](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#)
Subject: RE: Notice of Public Hearing for West Basin MWD's 2020 Urban Water Management Plan
Date: Thursday, April 8, 2021 4:13:19 PM
Importance: High

Dear Mr. Lee,

I apologize for the error in the previous message sent moments ago. Please know that we are very grateful for all the support we receive from the City of Hawthorne! As noted, per the Urban Water Management Planning Act, West Basin is in the process of preparing its 2020 Urban Water Management Plan (UWMP) and 2021 Water Shortage Contingency Plan (WSCP). In addition, WBMWD is preparing an appendix to both the 2015 UWMP and 2020 UWMP to demonstrate consistency with the Delta Plan Policy WR P1, Reduced Reliance on the Delta Through Improved Regional Water Self-Reliance (California Code Reg., tit.23, §5003). The 2015 UWMP is being amended only to report reduced reliance on the Delta and this action is separate from adoption of the 2020 UWMP and adoption of the 2021 WSCP.

Through this effort, we look forward to your participation. Attached, please find the Notice of Public Hearing for the West Basin Municipal Water District 2020 Urban Water Management Plan. **The public hearing is scheduled as part of a WBMWD Board meeting on June 10, 2021 at 10:00 a.m.** This meeting will be available virtually, and will be properly noticed on the West Basin website (www.westbasin.org).

If you or your staff have any questions, please feel free to give me a call.

Sincerely,



E.J. Caldwell, Esq.
**Water Policy & Resources Development
Manager**
310.660.6286 Office
213.500.0379 Mobile
edwardc@westbasin.org

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MICHAEL CALABRIA
WEST BASIN MWD
17140 S AVALON BLVD
CARSON, CA 90746

COPY OF NOTICE

Notice Type: HRG NOTICE OF HEARING

Ad Description

DRAFT 2020 URBAN WATER MANAGEMENT PLAN DRAFT WATER SHORTAGE CONTINGENCY PLAN AND DRAFT APPENDIX 1 TO 2015

To the right is a copy of the notice you sent to us for publication in the LOS ANGELES SENTINEL. Please read this notice carefully and call us with any corrections. The Proof of Publication will be filed with the County Clerk, if required, and mailed to you after the last date below. Publication date(s) for this notice is (are):

05/27/2021 , 06/03/2021

The charge(s) for this order is as follows. An invoice will be sent after the last date of publication. If you prepaid this order in full, you will not receive an invoice.

Table with 2 columns: Description, Amount. Rows: Publication (\$988.32), Total (\$988.32)

CNS# 3473202

Notice of Public Hearing
DRAFT 2020 URBAN WATER MANAGEMENT PLAN, DRAFT WATER SHORTAGE CONTINGENCY PLAN, AND DRAFT APPENDIX 1 TO 2015 URBAN WATER MANAGEMENT PLAN

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The public hearing will be conducted during a West Basin Special Board meeting. Pursuant to the Governor's Executive Orders of March 12, 2020, and March 19, 2020, this meeting will be hosted by teleconference, with no physical meeting location being provided. Meeting details are provided herein:

West Basin Board of Directors: Special Board Meeting
Thursday, June 10, 2021 at 10:00 AM
Teleconference Participation Only
(GoToMeeting and Phone-In Number)

The public hearing will be live streamed through GoToMeeting and will also be recorded. The meeting may be accessed using the following link on the West Basin website: http://wbmwdca.igmp2.com/Citizens/Default.aspx (Please check this website for additional details including final agenda and agenda packet).

The 2020 UWMP assesses West Basin's water resources portfolio, demands, and planning strategies over the next 25 years, as a requirement set forth by the California Department of Water Resources. The draft

2020 UWMP complies with state law requiring urban water suppliers to prepare and update urban water management plans every five years.

The draft WSCP describes how West Basin is prepared to respond to a variety of water shortage conditions. West Basin's draft WSCP satisfies the requirements of the California Water Code.

The draft Appendix I to the 2015 UWMP and draft Appendix D to the 2020 UWMP includes all of the elements described in Delta Plan Policy WR P1, Reduce Reliance on the Delta Through Improved Regional Water Self-Reliance (Cal. Code Regs. tit. 23, § 5003) which need to be included in a water supplier's UWMP to support a certification of consistency for a future covered action.

Final drafts of the 2020 UWMP, WSCP, and Appendix I to the 2015 UWMP may be viewed on the West Basin website at www.westbasin.org. Public input is welcomed and will be considered prior to finalizing the 2020 UWMP, WSCP, and Appendix I to the 2015 UWMP. All written comments must be received by 5:00 PM PDT on June 9, 2021.

For more information, or to provide comments on the draft 2020 UWMP, draft WSCP, and draft Appendix I to the 2015 UWMP, please contact E.J. Caldwell, Manager of Water Policy and Resources Development at edwardc@westbasin.org. 5/27, 6/3/21
CNS-3473202#
LOS ANGELES SENTINEL



Aviso de Audiencia Pública

BORRADOR DEL PLAN DE GESTIÓN DE AGUAS URBANAS 2020, BORRADOR DEL PLAN DE CONTINGENCIA POR ESCASEZ DEL AGUA, Y BORRADOR DEL APÉNDICE I PARA EL PLAN DE GESTIÓN DE AGUAS URBANAS 2015

La Junta de Directores de West Basin Municipal Water District (West Basin) llevará a cabo una audiencia pública el **lunes 10 de junio de 2021 a las 10:00 AM**, para recibir comentarios sobre el borrador del Plan de Gestión del Agua Urbana (UWMP, por sus siglas en inglés) del Distrito, el borrador del Plan de Contingencia por Escasez de Agua (WSCP, por sus siglas en inglés) y el borrador del Apéndice I como un adendum a sus UWMP de 2015.

La audiencia pública se llevará a cabo durante una reunión Especial de la Junta de West Basin. De conformidad con las Ordenes Ejecutivas del Gobernador del 12 de marzo de 2020, esta reunión será presentada por teleconferencia, sin que se proporcione una ubicación física para la reunión. Aquí se proporcionan los detalles de la reunión:

Junta de Directores de West Basin: Reunión Especial de la Junta

Jueves 10 de junio de 2021 a las 10:00 AM

Solo Participación en Teleconferencia (GoToMeeting y Número con Llamadas)

La audiencia pública será transmitida en vivo a través de GoToMeeting y también será grabada. Se puede acceder a la reunión utilizando el siguiente enlace en el sitio web de West Basin: <http://wbsmwdca.zoom2.com/Join?from=calendar> (Consulte este sitio web para detalles adicionales, incluyendo la agenda final y el paquete de la agenda).

El UWMP de 2020 evalúa la cartera de recursos hídricos de West Basin, y las estrategias de planificación durante los próximos 25 años, como un requisito establecido por el Departamento de Recursos Hídricos de California. El borrador del UWMP de 2020 cumple con la ley estatal que requiere que los proveedores de agua urbana preparen y actualicen los planes de gestión de agua urbana cada cinco años.

El borrador WSCP describe cómo el West Basin está preparada para responder a una variedad de condiciones de escasez de agua. El borrador WSCP de West Basin satisface los requisitos del Código de Aguas de California.

El borrador del Apéndice I al UWMP de 2015 y el borrador del Apéndice D al UWMP de 2020 incluye todos los elementos descritos en la Política del Plan Delta WR P1, Reducir la Dependencia Delta a Través de la Autosuficiencia Regional Mejorada del Agua (Código de Regs. De Cal. tit. 23, § 5003) que deben ser incluidos en un UWMP del proveedor de agua para respaldar una certificación de consistencia para una futura acción cubierta.

Los borradores finales del UWMP de 2020, WSCP, y el Apéndice I al UWMP de 2015 pueden ser vistos en el sitio web de Basin West en www.wbasin.org. Las aportaciones del público son bienvenidas y serán consideradas antes de finalizar el UWMP de 2020, WSCP y el Apéndice I al UWMP de 2015. **Todos los comentarios escritos deben ser recibidos antes de las 5:00 PM PDT del 9 de junio de 2021.**

Para obtener más información, o para proporcionar comentarios sobre el borrador UWMP de 2020, el borrador WSCP, y el borrador del Apéndice I al UWMP de 2015, comuníquese con E.J. Caldwell, Gerente de Desarrollo de Recursos y Políticas del Agua en ecaldwell@wbasin.org.

Notice of Public Hearing

DRAFT 2020 URBAN WATER MANAGEMENT PLAN, DRAFT WATER SHORTAGE CONTINGENCY PLAN, AND DRAFT APPENDIX I TO 2015 URBAN WATER MANAGEMENT PLAN

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The 2020 UWMP assesses West Basin's water resources portfolio, demands, and planning strategies over the next 25 years, as a requirement set forth by the California Department of Water Resources. The draft 2020 UWMP complies with state law requiring urban water suppliers to prepare and update urban water management plans every five years.

The draft WSCP describes how West Basin is prepared to respond to a variety of water shortage conditions. West Basin's draft WSCP satisfies the requirements of the California Water Code.

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Gardena Valley News 5/27,6/3/21-105922

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Notice of Public Hearing

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Notice of Public Hearing

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For more information, or to provide comments on the draft 2020 UWMP, draft WSCP, and draft Appendix I to the 2015 UWMP, please contact E.J. Caldwell, Manager of Water Policy and Resources Development at edwardc@westbasin.org.

Published The Malibu Times 5/27, 6/3/21

F

Adoption Resolutions



West Coast Groundwater Basin Adjudication and Amendment

I

1
2 There exists in the County of Los Angeles, State of Cali-
3 fornia, an underground water basin or reservoir known and here-
4 inafter referred to as "West Coast Basin" or the "Basin," and
5 the boundaries thereof are described as follows:

6 Commencing at a point in the Baldwin Hills about
7 1300 feet north and about 100 feet west of the intersec-
8 tion of Marvale Drive and Northridge Drive; thence through
9 a point about 200 feet northeasterly along Northridge
10 Drive from the intersection of Marvale and Northridge
11 Drives to the base of the escarpment of the Potrero
12 fault; thence along the base of the escarpment of the
13 Potrero fault in a straight line passing through a
14 point about 200 feet south of the intersection of
15 Century and Crenshaw Boulevards and extending about
16 2650 feet beyond this point to the southerly end of
17 the Potrero escarpment; thence from the southerly end
18 of the Potrero escarpment in a line passing about 700
19 feet south of the intersection of Western Avenue and
20 Imperial Boulevard and about 400 feet north of the
21 intersection of El Segundo Boulevard and Vermont
22 Avenue and about 1700 feet south of the intersection
23 of El Segundo Boulevard and Figueroa Street to the
24 northerly end of the escarpment of the Avalon-Compton
25 fault at a point on said fault about 700 feet west of
26 the intersection of Avalon Boulevard and Rosecrans
27 Avenue; thence along the escarpment of the Avalon-
28 Compton fault to a point in the Dominguez Hills located
29 about 1300 feet north and about 850 feet west of the
30 intersection of Central Avenue and Victoria Street;
31 thence along the crest of the Dominguez Hills in a
32 straight line to a point on Alameda Street about 2900

1 feet north of Del Amo Boulevard as measured along
2 Alameda Street; thence in a straight line extending
3 through a point located on Del Amo Boulevard about
4 900 feet west of the Pacific Electric Railway to a
5 point about 100 feet north and west of the intersec-
6 tion of Bixby Road and Del Mar Avenue; thence in a
7 straight line to a point located about 750 feet west
8 and about 730 feet south of the intersection of Wardlow
9 Road and Long Beach Boulevard at the escarpment of the
10 Cherry Hill fault; thence along the escarpment of the
11 Cherry Hill fault through the intersection of Orange
12 Avenue and Willow Street to a point about 400 feet east
13 of the intersection of Walnut and Creston Avenues; thence
14 to a point on Pacific Coast Highway about 300 feet west
15 of its intersection with Obispo Avenue; thence along
16 Pacific Coast Highway easterly to a point located about
17 650 feet west of the intersection of the center line of
18 said Pacific Coast Highway with the intersection of the
19 center line of Lakewood Boulevard; thence along the
20 escarpment of the Reservoir Hill fault to a point about
21 650 feet north and about 700 feet east of the intersection
22 of Anaheim Street and Ximeno Avenue; thence along the
23 trace of said Reservoir Hill fault to a point on the Los
24 Angeles - Orange County line about 1700 feet northeast
25 of the Long Beach City limit measured along the County
26 line; thence along said Los Angeles - Orange County line
27 in a southwesterly direction to the shore line of the
28 Pacific Ocean; thence in a northerly and westerly direc-
29 tion along the shore line of the Pacific Ocean to the
30 intersection of said shore line with the southerly end
31 of the drainage divide of the Palos Verdes Hills; thence
32 along the drainage divide of the Palos Verdes Hills to

1 the intersection of the northerly end of said drainage
2 divide with the shore line of the Pacific Ocean; thence
3 northerly along the shore line of the Pacific Ocean to the
4 intersection of said shore line with the westerly projec-
5 tion of the crest of the Ballona escarpment; thence easterly
6 along the crest of the Ballona escarpment to the mouth of
7 Centinela Creek; thence easterly from the mouth of
8 Centinela Creek across the Baldwin Hills in a line encom-
9 passing the entire watershed of Centinela Creek to the
10 point of beginning.

11 The area included within the foregoing boundaries is approx-
12 imately 101,000 acres in extent.

13 II

14 A water year, as that term is used herein, is a twelve-
15 month period beginning October 1 and ending September 30.

16 III

17 The Watermaster shall be the Department of Water Resources
18 of the State of California, to serve at the pleasure of the Court,
19 and said Watermaster shall administer and enforce the provisions
20 of this judgment and the instructions and subsequent orders of
21 this Court, and shall have the powers and duties hereinafter set
22 forth. If any such provisions, instructions or orders of the
23 Court shall have been disobeyed and disregarded, said Watermaster
24 is hereby empowered to report to the Court such fact and the
25 circumstances connected therewith and leading thereto.

26 IV

27 Certain of the parties to this action have no right to
28 extract water from the Basin. The name of each of said parties
29 is listed below with a zero following his name, and the absence
30 of such right in said parties is hereby established and declared.
31 Certain of the parties to this action and/or their successors in
32 interest are the owners of rights to extract water from the Basin,

1 which rights are of the same legal force and effect and without
 2 priority with reference to each other, and the amount of such
 3 rights, stated in acre-feet per year, hereinafter referred to as
 4 "Adjudicated Rights" is listed below following such parties'
 5 names, and the rights of the last-mentioned parties are hereby
 6 declared and established accordingly. Provided, however, that
 7 the Adjudicated Rights so declared and established shall be
 8 subject to the condition that the water, when used, shall be put
 9 to beneficial use through reasonable methods of use and reason-
 10 able methods of diversion; and provided further that the exercise
 11 of all of said rights shall be subject to a pro rata reduction,
 12 if such reduction is required, to preserve said Basin as a common
 13 source of water supply. The parties hereinafter listed whose
 14 names are preceded by an asterisk (*) have approved the Exchange
 15 Pool Provisions contained in paragraphs 7 to 14, both inclusive,
 16 of the Agreement and Stipulation for Judgment filed herein.

17	<u>PARTY AND SUCCESSOR, IF ANY</u>	<u>ADJUDICATED RIGHT</u>
18		
19	JOE ABEGG	0
20	FRANK ABELL	1.8
21	ALEXANDER ABERCROMBY	0
22	Henry Abercromby one Fred Roland Cooper	
23	one Ted R. Cooper	
23	one Roy F. Knapp	
24	AIRWAYS WATER COMPANY (Incorporated)	0
25	H. A. ALLEN	0
26	*ALLIED CHEMICAL CORPORATION, a corporation, formerly General Chemical Company	255.0
28	ALUMINUM COMPANY OF AMERICA one U.S. Navy Department	0 1.7
29		
30	AMERICAN RADIATOR & STANDARD SANITARY CORPORATION, a corporation	0

31

32

1	*REMBERT C. ANDERSON	80.5
	*Allen W. Ashburn	
2	*Ann F. Ashburn	
	*Martha D. Bingham	
3	*Laura Bonanno	
	*Louise Casey also known as	
4	*Louise Casey Gibson	
	*Ruby Decius sued as Jane Doe 19	
5	*Ruby F. Joel	
	*Catherine Lass sued as Jane Doe 18	
6	*Catherine B. Maddox	
	*Louisa Watson sued as Jane Doe 17	
7	*Hazel Parsons	
	*J. W. Parsons	
8	*Myrtle Mae Parsons	
	*Alexander Poggi	
9	*One Freda E. Poggi	
	*Mary Richley sued as Jane Doe 16	
10	*Devises of Gurney E. Newlin, deceased, to wit:	
11	*Helen Newlin Hastings	
	*Robert Pusey Hastings	
12	*Thomas Newlin Hastings	
	*Helen Hastings Schribner	
13	*Edith Hastings Murphy	
	*George R. Bell, Jr.	
14	*Thomas Elwood Bell	
15	KATHLEEN M. ASHBROOK, formerly Kathleen M. Davies	0
16	one J & E Investment Co.	
17	ATCHISON, TOPEKA & SANTA FE RAILWAY COMPANY, (The), a corporation	0
18		
19	AZEVEDO ESTATE COMPANY, a corporation	0
20	JOHN AZVEDO	0
21	WM. D. BAILEY	0
	Harry C. Cain	
	Jesse E. Cain	
22	Dorothy Luther sued as Dorothy F. Luther	
	Harold M. Luther	
23		
24	E. W. BALDWIN	0
25	FRANK A. BALLMAN and ROSEMARY N. BALLMAN	7.0
26	BANK OF AMERICA NATIONAL TRUST AND SAVINGS ASSOCIATION, as Trustee (under its Trust BI-100)	0
27		
28	BANK OF AMERICA NATIONAL TRUST AND SAVINGS ASSOCIATION, as Trustee (under its Trust BI-51)	0.1
29		
30	GEORGE W. BARNARD and JOSEPH A. BARNARD, as Trustees under the last will and testament of ANNIE E. BARNARD	0
31	one Fritz B. Burns.	
32	MRS. ANNA T. BARNES	0
	one Alfred O. Barnes	

1	G. A. BAUMAN	0
2	JOHN H. BECHTEL one Riverside Cement Company	0
3	BEGO CORPORATION, a corporation	0
4	one Arthur J. Delaney	4.1
5	J. W. BELLES	0
6	one L. W. Mason one S. M. Mason	
7	BELVIDERE MUTUAL WATER COMPANY	33.4
8	JAMES BERARDINO, sued as James Bernardino and	0
9	Jim Berardino, sued as Jim Bernardino	
10	P. BERDOLLT	0
11	T. J. Heithold	
12	A. M. BERNARD	0
13	one Moneta Gardens, Inc., a corporation	
14	H. W. BEST	0
15	LOUIS BIZEGO	0
16	ALEXANDER R. BLACK	0
17	one Liberty Investment Company	
18	ARTHUR A. BLAIN, SR., sued as A. A. Blain	0
19	N. J. BLAIS	0
20	one Michael Chuchor one Albert J. Sahn	
21	H. H. BLAKE	0
22	one Pearl E. Grady	
23	ARNOLD BLOEMSMA, sued as Arnold Bloesma	0
24	BODGER REALTY COMPANY, (The), a corporation	0
25	COLIN J. BOONE	0
26	Clarence J. Lamb Lora Lamb	
27	ANNA BOONSTRA	0
28	Tedde Boonstra one M. V. Deniz	
29	CHARLES P. BOWMAN, sued as Pat Bowen	0
30	Ann Bowman one Harlan T. Maples	
31	WAYNE E. BROOKS	0
32	one Artie Waller one V. W. Waller	

1	CARL L. BROWN	0
2	EDA BUCKMASTER	0
	Rose Faure	
3	Frank X. Girard	
	Julia Girard	
4	John Oddoris	
	Paul Oddoris	
5	Marie Girard Seal sued as	
	Marie Girard	
6	one Frank Girard	
7	BULTRY CORPORATION, a corporation	0
	one Paul E. Black	
8	One Ronald L. Black	
9	E. D. BURKE, sued as	0
	E. W. Burke	
10		
	*W. F. BURKE	9.5
11	Lois Price Burke, sued as Jane Doe 14	
12	M. P. BUTTE	0
13	*CALIFORNIA WATER SERVICE COMPANY, a corporation	3071.0
14		
	HUGH N. CAMERON	0
15	Ysaburo Mishima	
	Satsuki Mishima	
16		
	JACK C. CARLTON	0
17		
	ELOISE CARRELL	0
18		
	FRANK R. CARRELL, estate	0
19	Tom Ware and James Blake,	
	as co-executors of the last	
20	will & testament of Frank R. Carrell,	
	deceased.	
21		
	*CARSON ESTATE COMPANY	130.0
22		
	J. F. CAVANAUGH	0
23		
	CENTINELA VALLEY UNION HIGH SCHOOL DISTRICT	0
24		
	MARY RIORDAN CHAMBERS, sued as	0
25	Mary R. Chambers	
26		
	MARY R. CHAMBERS AND	
	DAN MURPHY COMPANY, a corporation	0
27		
	*CHANSLOR-CANFIELD MIDWAY OIL CO.	104.0
28	Now Chanslor-Western Oil &	
	Development Co.	
29		
	CLEM CHRISTIE	0
30		
	CLEM CHRISTIE, DON C. FOHL AND	.02
31	LEON LARSON	
	As Trustees of the Wilmington	
32	Cemetery Association	

1	JENNIE M. CLARK	0
2	WILFORD H. CLARK, sued as	0
3	W. H. Clark and Ida E. Clark, sued as Jane Doe 1	
4	MRS. LOIS CLIFT	0
5	COAST INVESTMENT COMPANY, a corporation	0
6	EDMOND S. COLLINS	0
7	LILY COLTRIN	0
8	COLUMBIA BROADCASTING SYSTEMS, INC., sued as Columbia Broadcasting Co.	18.5
9		
10	COMMUNITY AIRPORTS, INC., a corporation	0
11	V. G. COMPARETTE	0
12	CITY OF COMPTON	0
13	COMPTON BRICK & TILE COMPANY, a corporation	0
14		
15	COMPTON UNION HIGH SCHOOL DISTRICT	0
16	F. A. CONOVER	0
17	A. CORTRITE	0
18	EDWARD COST and EMILY COST, sued as Emily Costa	7.4
19	ERNEST COST	0
20	DANIEL CROWLEY	0
21	OWEN W. CURTIS	3.8
22	LOUIS DALLAPE, sued as Louis Dallapi	0
23		
24	TOM DALLAPE	0
25	MIKE DARBEAIAN, sued as John Doe 25	0
26	LUIGI DeBARNARDI	0
27	GERASIMOS K. DEFTERIOS	0
28	one Anna G. Defterios	
29	*DEL AMO ESTATE COMPANY	121.0
30	HENRY M. DENISON one Frank A. Basso	0
31	FRANK DERMODY	0
32		

1	G. DIBLE	0
2	MRS. H. DIEGO	0
3	JOHN DIONNE	0
4	one Eleanor G. Dreher	
	LEESA DOMBROWSKI	0
5	one Darthmouth Homes, Inc.	
6	*DOMINGUEZ ESTATE COMPANY	254.0
7	*DOMINGUEZ WATER CORPORATION	9477.8
8	MRS. RAY DONALD	0
	one Pauline H. Wilson	
9	THE DOW CHEMICAL CO., a corporation	0
10	CRISTINA O. DRALE	0
11	O'Brien Z. Drale	
12	CHAS. L. DRAPER,	0
	one James H. Alleman	
13	one Flora M. Draper	
	one Bernice Alleman	
14	Bess M. Feder	
	Ben T. Johnston	
15	Genevieve K. Miles	
	Ikuko Nakawatse	
16	Frank Wirz	
	one Allcast Foundry	7.2
17	A. J. DURAND	0
18	DAISY EARLY	111.0
19	H. J. Early and one Vickers, Inc.	
20	EAST GARDENA WATER COMPANY	0
21	EDISON SECURITIES COMPANY, a corporation	46.7
	sued as Richard Roe Company 13	
22	C. O. EDWARDS	0
23	W. J. Edwards	
24	EL CAMINO JUNIOR COLLEGE DISTRICT	0
25	LATHROP M. ELLINWOOD	0
	one Isamu Kita	
26	one Kazuo Kita	
	one Yoshiki R. Kita	32.6
27	CLINTON C. ELLIOTT, sued as	0
28	C. C. Eliot	
	Georgia M. Elliott	
29	Juluis G. Elliott	
	Frank M. Elliott	
30	*CITY OF EL SEGUNDO	953.0
31	EL SEGUNDO LAND & IMPROVEMENT COMPANY,	0
32	a corporation	

1	GEORGE ENGLAND	0
2	CAROLINE ETCEHEMENDY, sued as Jane Doe 12	8.2
3	Mariana T. Etchemendy, sued as Jane Doe 11	
4		
5	CARMELITA ROSECRANS EWING, sued as C. F. Rosecrans and W. S. Rosecrans	91.3
6		
7	OSCAR FALCINELLA & MIKE FALCINELLA	0
8	FRED FIESEL	0
9	MAXWELL C. KING	0
10	JAMES L. FITTINGER	0
11	*FLETCHER OIL COMPANY, a corporation composed of D. S. Fletcher F. O. Fletcher	86.3
12	Helen Fletcher O'Connell and Idaho Fidelity Corporation	
13		
14	ROLLA FORD	0
15	FOX HILLS COUNTRY CLUB	0
16	TONY PRIETAS	0
17	W. J. FROGGE one Sigmund S. Hockwold one Lionel S. Hockwold	0
18		12.5
19	HERBERT SAKAYE FUKUWA	0
20	A. O. FULLER Helene M. Fuller	0
21	ROBERT L. FULLILOVE	1.0
22	JOE GALDARISI Brody Investment Company	0
23		
24	AMADOR GARCIA Eva Garcia	0
25	ARTHUR B. GARCIA Arthur D. Garcia, sued as June Garcia	0
26		
27	JOSE H. GARCIA	0
28	GARDENA SYNDICATE NO. 2	0
29	GARDENA WATER SUPPLY COMPANY	0
30	GAY LAND COMPANY, LTD., a corporation	0
31	V. M. GERACOSIAN one Stanley N. Lewis	0
32	GEORGE F. GETTY, INC.	0

1	CAROLINA GIACIOMAZZI, sued as Mrs. C. Giacomagzi	0
2	ALBERT GIANNI	0
3	AMANDA L. GILLINGHAM, sued as	0
4	Jane Doe 20	
5	Floyd W. Gillingham, sued as (John Doe 24)	
6	Josephine Gillingham, sued as (Jane Doe 21)	
7	FLORENCE R. GILLINGHAM	2.4
8	Thora Pursche	
9	Nellie P. Smith	
10	Anna M. Pursche	
11	MRS. MATEA GIMINEZ	0
12	LALLA D. GODDARD	0
13	Ralf Goddard	
14	WM. H. GOLDSMITH	0
15	Cliff Ralph	
16	FELIPE GONZALEZ	34.3
17	Gabriela Gonzales	
18	T. B. GOOSSEN	0
19	WILLIAM W. GORDON, sued as	0
20	John Doe Gordon	
21	BERTHA GOSS	0
22	one Property Management Corporation	
23	GEORGE GRANDE	0
24	JOHN GRANT	59.0
25	ISABELA GRANZ	380
26	Andrew R. Joughin	
27	Minnie Joughin	
28	George Riley Murdock, successor	
29	of Matilda J. Murdock	
30	Lillian Murdock Sanborn, successor	
31	of Matilda J. Murdock	
32	Emma J. Osborn	
33	Security-First National Bank, as	
34	Trustee of Trust No. P 1734, sued as	
35	Farmers & Merchants National Bank of	
36	Los Angeles, as Trustee John Joughin Tuttle	
37	(now Joughin Torrance Ranch)	
38	EDWARD I. GREEN, sued as	0
39	E. J. Green	
40	one Florence D. Green	
41	PRICE W. GRESHAM	0
42	Walter G. Gresham	
43	Comer J. Lewis	
44	Voleta A. Lewis	

1	BEATRICE S. GRIFFITH	0
2	W. P. Griffith one Otto K. Olessen	
3	B. H. GRIGGS	0
4	Olive W. Griggs	
5	JOSEPH M. GROSS, sued as	0
6	Joseph Gross	
7	Myron J. Glauber, sued as	
8	John Doe 20, Clarence L. Brown, sued as John Doe 21, and Perfect Properties Inc., a corporation sued as Richard Roe Co. 20.	
9	HENRY M. GUENSER	0
10	Sophia E. Guenser	
11	DANIEL GUIDOTTI	0
12	CHAS. N. HAIGHT	0
13	One Grace P. Warden	
14	RAYMOND R. HAILS	0
15	WALTER HAMMOND	0
16	one Contractor's Asphalt Products Co.	
17	HANCOCK CHEMICAL COMPANY, a corporation	0
18	HARBOR CITY DEVELOPMENT COMPANY	0
19	R. B. HARDING	0
20	*ROY W. HARRIS	0
21	HARRIS PUMPING PLANT	0
22	Leesa Dombrowski	
23	Carl G. Pursche	
24	Anna M. Pursche	
25	Harry Krundick	
26	Anna Doherty	
27	Mrs. Frank Cota	
28	Holly Corporation, a corporation	
29	Homer Bales and Ernest Haughton dba and sued as Pursche Water Co.	
30	W. HASEGAWA	0
31	one Kauffman, Milton, Construction Company, successor)	
32	C. R. HASKINS	0
33	FRED M. HAUT	0
34	one Ivy H. Haut	
35	CITY OF HAWTHORNE	1882.0
36	CHARLES R. HAYES	0
37	one Robert W. Colby	
38	one Fern M. Colby	

1	BEATRICE M. HENDERSON	1.3
2	DAVID P. HEREDIA	0
3	E. N. HERMAN	0
4	JULIA HERMANSEN	0
5	AUGUST HERZOG	0
6	one Martha Herzog	
7	HILLSIDE MEMORIAL PARK, a corporation	16.7
8	MARY N. HILYARD, sued as Jane Doe 55	0
9	Mrs. Monta Templeton, sued as	
	Jane Doe 56	
10	HENRY HIMMELFARB	0
11	Wm. Pirk	
	one Western Air Compressor Company	
12	T. E. HODNEFIELD	0
13	MARIE C. HOFFMAN	0
	Los Angeles City School District, successor	
14	J. P. HOEPTNER	0
15	Ida B. Hoeptner	
16	one Jack I. Gantz	
	one Lillian H. Gantz	
17	CLIFFORD HOLLIDAY	0
18	W. I. HOLLINGSWORTH	0
	one Julius L. Jenkins	
	one Evelyn M. Jenkins	
19	*HOLLYWOOD TURF CLUB, a corporation	282.0
20	WILBUR HORNSTRA	14.1
21	C. L. HUDSON	0
22	HUGHES-TOOL-COMPANY	0
23	Dismissed	
	G.F.	
24	ARTHUR C. HURT	0
	one Truman Enterprises, Inc.	
25	DON C. HADLEY	0
26	one D. W. Sleet	
	one Virgie Sleet	
27	*CITY OF INGLEWOOD	4382.0
28	INGLEWOOD PARK CEMETERY ASSOCIATION, a	0
29	corporation sued as Inglewood Park	
	Mortuary Assoc.	
30	YOSHI INOSE	0
31	one Seijiro Inose	
32	F. C. IRVINE	0

1	FRED IWATA John Iwata	0
2		
3	J. B. D. HOLDING CORP., a corporation	0
4	*JOHNS-MANVILLE PRODUCTS CORPORATION	881.0
✓5	C. F. JOHNSON	0
6	one Kaoru Wada one Satoru Wada	12.2
7	A. S. JOHNSTON DRILLING COMPANY, a corporation	11.9
8		
9	O. T. JOHNSON CORPORATION A. P. Johnson Company sued as, Richard Roe Company One	0
10		
11	ANNA MAE JONES, successor to Anne Taylor, deceased (sued herein as Anna Taylor)	50.2
12		
13	E. F. JONES	0
14	W. H. JONES one Leon A. Carpenter and Darline N. Carpenter, successors	0
15		
16	JOSHUA-HENDY IRON WORKS	0
17	DORA A. KAHLER	0
18	OSCAR E. KARR Sherley Karr	0
19	CHESTER L. KEHN	0
20	K. L. KELLOGG & SONS, a corporation	0
21	KELLY PIPE COMPANY, a corporation	49.0
22	LOUIS KELTON	0
23	W. G. KILLINGER one Esther N. Lee	0
24		
25	JEANETTE B. KINCAID one Fred F. Hoyt one Yvonne A. Hoyt	0
26		
27	SARAH S. KING one Crawford Building Corporation	0
28	JOHN KRAUSS Dan E. Vail and Barbara M. Vail	0
29		
30	CHARLES KULL	0
31	GLADYS KURTZ	3.5
32	JOHN LAMPO	0

1	*MAGNUS C. LARSEN, sued as	0
2	M. Larsen	
3	NELS LAUTRUP	0
4	*JAMES K. LAWLER, Estate	3.1
5	LAWNDALE (CITY) SCHOOL DISTRICT	0
6	OF LOS ANGELES COUNTY, sued as	
	Richard Roe Company 12	
7	ANNA LEACH	0
8	JOE LEONARDO	0
9	A. LERMENS	0.7
10	EMMA L. LENZINGER, sued as	1.4
	Mrs. E. L. Leuzinger	
11	LAWRENCE LISTON	.7
12	PAT LIZZA	0
13	BEN LONG	0
14	Persilla Long, sued as Pricilla	
	Long	
15	JOHN LONG	0
16	CITY OF LONG BEACH	0.7
17	FRANK LOPEZ	3.7
18	MANUEL LOPEZ	0
19	one Rudolph E. Lopez	
20	COUNTY OF LOS ANGELES	28.7
21	THE CITY OF LOS ANGELES	1503.0
22	LOS ANGELES CITY SCHOOL DISTRICT	0
23	LOS ANGELES COUNTY FLOOD CONTROL	37.6
	DISTRICT	
24	*LOS ANGELES COUNTY SANITATION DISTRICT	102.0
25	No. 2, sued as Los Angeles County	
	Sanitary District No. 2	
26	LOS ANGELES COUNTY WATER WORKS, DISTRICT	0
27	No. 1	
28	LOS ANGELES COUNTY WATER WORKS, DISTRICT	1352.0
	No. 13	
29	LOS ANGELES COUNTY WATER WORKS, DISTRICT	551.0
30	No. 22	
31	LOS ANGELES EXTENSION COMPANY	0
32	LOS ANGELES INVESTMENT COMPANY	0

1	LOS NIETOS COMPANY, a corporation	0
2	LOYOLA UNIVERSITY FOUNDATION	0
3	LOYOLA UNIVERSITY OF LOS ANGELES, a corporation	48.1
4	LORENA MacLEAN	0
5	one Torrance Land Company	
6	PETE MADRIGAL	0
7	S. W. MAGALLANES	0
8	MANCHESTER AVENUE COMPANY, a corporation	0
9	one Inglewood Golf Course, a partnership	
10	*MANHATTAN BEACH, CITY OF	1131.2
11	H. C. MARCH	0
12	one Victory Oil Company	
13	P. T. MARTIN	0
14	one Arlington Garden Homes Company	
15	HOWARD DOUGLAS MARTZ	0
16	James L. Martz	
17	Louise H. Martz	
18	RAY F. MATSON, sued as	0
19	R. F. Matson	
20	Florence M. Nielsen	
21	FRED MAU	0
22	*JAMES McCANDLESS	6.7
23	ETHEL McCLAIN	0
24	G. A. McCRACKIN, sued as	0
25	G. A. Mc Cracken	
26	M. F. McCULLEY	0
27	J. J. McGRANAGHAN	0
28	IVAN J. McKERNON	0
29	one Doris E. Parks	
30	one L. Kenneth Parks	
31	AIMEE R. MEANS	0
32	one Prarie Company	
33	PAUL MESPLOU	0
34	J. J. METZLER	0
35	one Kenji Yokoyama and	
36	one Miyeko Yokoyama	
37	E. B. MILBURN	0
38	One M. Y. Yamane	

1	CARL H. MILLER	0
2	MINNEAPOLIS-HONEYWELL REGULATOR COMPANY	0
3	APPLIANCE CONTROLS DIVISION	
4	YSABURO MISHIMA and SATSUKI MISHIMA	0
	Hugh N. Cameron	
5	O. MOEN	0
6	P. E. MOLINE	0
7	MONETA MUTUAL WATER COMPANY	916.0
8	JOE MONIZ JR., sued as	2.2
	Joe Moniz	
9	one Rose Moniz	
10	B. R. MOODY	0
	one Opal B. Edwards	
11	J. B. MOORE	0
12	MAMIE S. MOORE	0
13	ALICE MORRISON	0
14	Ethel Morrison	
15	A. H. MORSE	0
	one J. J. Lapidus	
16	one B. C. Investment Co., Inc.	
17	HAROLD C. MORTON, sued as	0
	Harold Morton	
18	one Allied Gardens Corporation	
19	V. G. MOTT	0
20	ARNOLD W. MUELLER	0
	Ruth Mueller	
21	SUMIYE NAGAO	0
22	HIROSHIMA NAKAMURA	0
23	KIKUNO NAKANO	19.3
24	Ben Nakano	
	George Nakano	
25	Helen Nakano	
	Kan Nakano	
26	Mary Nakano	
	Taka Nakano	
27	Misao Nakano Nakashima	
28	NARBONNE RANCH WATER CO. No. 2	0
29	NARBONNE RANCH WATER CO. No. 3	0
30	NATIONAL ELECTRIC PRODUCTS CORP.	0
31	NATIONAL ROYALTIES, INC., a Corporation	0
32		

1	T. C. NAVARRO	0
2	one Hilario S. Alwag	
	one Emma Alwag	53.9
3	A. L. NELSON	0
4	Olaf Nelson	
	one George C. Orr	
5	EDWARD NICKEL	0
6	HENRY W. NICKEN, sued as	0
7	H. W. Nielsen	
	one Kenneth D. Durian	
8	J. E. NORMINGTON	0
9	NORTH AMERICAN AVIATION, INC.,	0
10	a corporation	
11	NORTHROP AIRCRAFT INCORPORATED	38.15
12	WARREN J. OGLE	0
13	JACK ORESKOVICH	0
14	Harold Walsh	
	one Harold D. Walsh	
	one Marie L. Walsh	
15	CHISATO OTANI, sued as	0
16	John Doe 57	
17	PACIFIC CREST CEMETERY COMPANY,	17.7
	Incorporated	
18	PACIFIC ELECTRIC RAILWAY COMPANY	0
19	PACIFIC WESTERN OIL CORPORATION,	0
20	a corporation	
21	PALISADES DEL REY WATER COMPANY	0
	(Included in City of Los Angeles)	
22	E. PALMER	0
23	*PALOS VERDES WATER COMPANY, a Corporation	999.0
24	G. L. PARCELL and MARGARET PARCELL	0
	one Rosie L. Kent	
25	PARK WATER COMPANY	160.0
26	MRS. ZORAIDA PARKE	1.8
27	WM. JOSEPH PASCHKE	.02
28	ROY PATTERSON	0
29	JOHN PAULIC	0
30	one John W. Taylor	
31	DAVE PEREZ	0
32	Apuleyo Villagomez	
	sued as A. Villagomez	

1	PERRY SCHOOL DISTRICT OF LOS ANGELES COUNTY	0
2		
3	WM. C. PETERSON	0
4	A. E. PHILLO	0
5	PIONEER DRILLING COMPANY, a corporation one Southern Heater Corp.	0
6	EDWARD A. PITTS	0
7	one Clarence E. Harrison one Martha E. Harrison	
8	FRANK X. PRICE	0
9	CARL G. PURSCHE AND CARL P. PURSCHE	0
10	doing business as Pursche Pumping Plant Carl G. Pursche Thora Pursche Anna M. Pursche	
11	one Guarantee Development Co.	
12		
13	CHARLES H. QUANDT, sued as Charles A. Quandt	0
14	RICHARD QUINN	0
15	Martha Quinn	
16	JOE B. RAMOS	0
17	RANCHO MUTUAL WATER COMPANY	0
18	J. K. RAVEN	0
	one Andrea S. Teran	
19	ELIZABETH E. REED, sued and formerly known as Elizabeth Edna Baker and Josephine Eilers for whom Dominguez Estate Company has been substituted	0
20		
21		
22	FRANK REHOR	0
23	one Josephine P. Rehor	2.2
24	LUCILLE G. REID	0
	Ogden G. Reid	
25	JEANETTE REIFSNYDER, also known as Jeanette Avant, and also known as Jeanette Heydenbeck	0.7
26	Calvin Wilson	
27	Edward E. Wilson, Jr.	
28	Harry R. Wilson	
29	Harry R. Wilson and Jeanette Reifsnnyder, also known as Jeanette Avant, as executors of the estate of Jeanette C. Wilson, deceased.	
30	Harry R. Wilson and Jeanette Reifsnnyder, also known as Jeanette Avant, as executors of the estate of Robert A. Wilson, deceased	
31		
32		

1	REPUBLIC PETROLEUM COMPANY	0
2	LEONCIE RICHARD, devisee of	0
3	Anna Richard, deceased, and	
4	Edward Richard, sued as	
	John Doe Richard	
5	ROSE A. RICHARDSON AND WM. T.	0
	RICHARDSON	
6	one South Normandie Manor, Inc.	
	RICHFIELD OIL CORPORATION	4428.0
7	RING OIL COMPANY	0
8	FLAVIO RODRIQUEZ	6.1
9	THE ROMAN CATHOLIC ARCHBISHOP OF	72.3
10	LOS ANGELES, a corporation sued	
	as, Holy Cross Cemetery	
11	*ROOSEVELT MEMORIAL PARK ASSOCIATION	0
12	R. E. ROSE	0
13	Clara M. Rose sued as Jane Doe 8	
14	L. D. ROSSER	0
15	ROYAL MUTUAL WATER COMPANY, a corporation	0
	one Delmer D. Kern	
16	HOMER E. RUDD	0
17	one Kiyor Ide	
18	F. J. RUSS	0
	one Ted Shpall	
19	one Sam H. Shpall	
20	RYAN AERONAUTICAL COMPANY, a corporation	20.2
21	YGNACIO SANDOVAL	0
22	C. W. SANGER	0
	one Gardena Valley Homes, Inc.	
23	*SANTA FE LAND IMPROVEMENT COMPANY	39.5
24	JAMES SCANDA, sued as	1.9
25	James Scander	
	George Nasim	
26	FLOYD H. SCHENK, JR.	0
27	Cora A. Schenk	
28	KEITH W. SCHLAEGEL	13.6
	Opal B. Schlaegel	
29	EDYTHE L. SCHLAEGETER	0
30	one James Murakami	
31	C. SCHRECKENGAST	0
32	W. C. SCHULTZ	0

1	A. D. SEABACK Ruth Seaback	3.5
2	MARVIN SELOVER AND MARY ZWEITER	0
3	one Hitoshi Fujii one Toshije Fujii	
4	SENTOUS HOLDING COMPANY	0
5	L. M. SEPULVEDA	0
6	LOUIS M. SEPULVEDA AND SECURITY-FIRST NATIONAL BANK, as Trustees under the last will and testament of Roman D. Sepulveda, deceased	0.7
7	P. C. SERBIAN Ruby H. Renfro	0
8	W. H. SEWARD one R. A. Watt Construction Co.	0
9	JOHN SHAW Phillip G. Shaw	0
10	*CLYDE L. SHEETS	5.5
11	*SHELL OIL COMPANY	4516.0
12	J. M. SHEPHERD	0
13	JAMES W. SHIPMAN one Osie R. Shipman	0
14	SAM SHORT, sued as Sam Sciortino	0
15	ELDON B. SHURTLEFF Marcelle Shurtleff one Barrett Development Corporation	0
16	EDWARD ROY SIDEBOTHAM AND EDWARD SIDEBOTHAM & SON., INC., sued as Edward Sidebotham	0
17	MRS. MARY SILVA one Norman A. Leiman	0
18	JAMES SLOAN	0
19	A. H. SMITH Sam Surber Freda Smith, sued as Jane Doe 9	9.7
20	EUNICE P. SMITH	0
21	SOCONY MOBIL OIL COMPANY, INC. (Successor by merger to General Petroleum Corporation)	2570.0
22	SOUTH BAY UNION HIGH SCHOOL OF LOS ANGELES COUNTY, sued as Redondo Union High School District	0
23		

1	SOUTHERN CALIFORNIA EDISON COMPANY	10.4
2	SOUTHERN CALIFORNIA WATER COMPANY	6265.3
3	*SOUTHERN PACIFIC COMPANY, sued as Southern Pacific Railroad Co.	166.0
4	SOUTHWEST PROPERTIES, INC., a corporation	0
5	SOUTHWESTERN PORTLAND CEMENT COMPANY	0
✓6	a corporation	
7	one Chandlers Palos Verdes Sand and Gravel Corp.	15.0
8	SPANISH-AMERICAN INSTITUTE	44.4
9	*STANDARD OIL COMPANY OF CALIFORNIA	4541.7
10	*STAUFFER CHEMICAL COMPANY	521.0
11	E. R. STEPHENSON, sued as	0
12	E. R. Stevenson L. F. Stephenson	
13	MRS. A. V. STEWART	0
14	CLYDE C. STRUBLE	0
15	one Ames L. Avers one Clara Avers	
16	SUNSET OIL COMPANY, a corporation	0
17	THE SUPERIOR OIL COMPANY	0
18	LOUISE A. SUTHERLAND, sued as	0
19	Bertha L. Sutherland	
20	PEGGY SWICK	5.5
21	MARIE D. TAIX	0
22	Edith T. Viole, sued as Edith T. Violi	
23	TAKATOSHI TAMURA	0
	one State of California, successor	
24	GEORGE TANAKA	0
25	Reiko Tanaka one Susumu Katsuda	
26	J. A. TEMPLETON	0
27	RUBY TERRY	0
28	one Reldon G. Pinney and one Nellie B. Pinney	
29	TEXACO INC., formerly	3432.0
30	THE TEXAS COMPANY	
31	RALPH THAXTER, sued as R. F. Thaxter	3.5
32		

1	THORSON HOMES, INC., a corporation	0
2	J. B. Investment Company, a corporation Anaheim Construction Company, a corporation	
3	TIDEWATER OIL CO., sued as Tide Water Associated Oil Company	167.0
4	*CITY OF TORRANCE, a municipal corporation	2519.0
5	TORRANCE UNIFIED SCHOOL DISTRICT	0
6	YING TOY	0
7	ALBERT A. TRAUB	0
8	Jane P. Traub one Baron Traub	
9	CLYFF A. TRIMBLE	0
10	one Mary E. Trimble	
11	OSCAR E. TURNER	0
12	one Elizabeth Miller Kolf	
13	*UNION OIL COMPANY OF CALIFORNIA	2670.0
14	UNIVERSAL-CONSOLIDATED OIL COMPANY, a corporation	0
15	*UNITED STATES STEEL CORPORATION	1791.0
16	Columbia-Geneva Steel Divn. successor by merger to Columbia Steel Company	
17	JOSE URIBE	0
18	ANNA MAE USSERY and LAWRENCE USSERY	0
19	one Mike L. Herrback one Rae Herrback	
20	HENRY VALDEZ	0
21	A. VAN VLIET	0
22	one Jake Zwaagstra and one Jessie M. Zwaagstra	
23	VAN CAMP SEA FOOD COMPANY	0
24	WILLIAM VERBURG, sued as	6.7
25	Menlo Verburg and Clara B. Verburg	
26	MARY VETTER	0
27	ENRIQUE A. VILLAGOMEZ	0
28	Ysabel F. Villagomez	
29	FRANK J. VOLLMER	0
30	EDWIN E. WAGNER	0
31	J. F. WAGNER	0
	one Orville N. Crafts	
32	JOSEPH F. WAGNER	0

1	E. J. WAIT	0
2	EARL C. WARD	0
3	DANIEL E. WARNER	0
4	JOSEPHINE WATKINSON	0
5	one Mates Tune et al	3.1
6	WATSON LAND CO. sued as Watson Estate Company	42.6
7	M. E. WEEKS	0
8	FRANK WESCOTT	0
9	WESTON INVESTMENT COMPANY, sued as	184.0
10	Richard Roe Co. 2,	
11	one K. S. Senness	
	one Charles W. Shepard	
12	BEN WESTON	0
13	A. K. WILSON LUMBER COMPANY, a corporation	0
	one Martin Bros. Box Company of California	3.4
14	FRANK WIRZ	0
15	WISEBURN SCHOOL DISTRICT	8.2
16	P. J. WITTSTROM	0
17	CORA B. WOOLLEY, sued as	0
18	Cora B. Woolley	
19	T. W. WOODLAND	0
20	WOODLAND CEMETERY ASSOCIATION	0
21	KATHERINE P. WOODMAN, sued as	3.7
22	F. T. Woodman	
23	HENRY S. WOOLNER	0
24	MINNIE V. WREDEN	0
	one Golden Monroe Homes, Inc.	
25	A. P. WRIGHT, sued as	0
26	Paul Wright	
27	MAXWELL ZIEGLER	0
28	MARY ZWEITER	0

V

Each of the parties hereto, their successors and assigns,
and each of their agents, employees, attorneys, and any and all
persons acting by, through, or under them or any of them, on

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1 and after October 1, 1961, are and each of them is hereby
2 perpetually enjoined and restrained from pumping or otherwise
3 extracting from the Basin any water in excess of said party's
4 Adjudicated Rights, except as provided in paragraphs VI and VII
5 hereof.

6 VI

7 In order to add flexibility to the operation of this
8 judgment, each of the parties to this action who is adjudged
9 in paragraph IV hereof to have an Adjudicated Right and who,
10 during a water year, does not extract from the Basin all of
11 such party's Adjudicated Right, is permitted to carry over from
12 such water year the right to extract from the Basin in the next
13 succeeding water year an amount of Water equivalent to the
14 excess of his Adjudicated Right over his extraction during said
15 water year not to exceed, however, 10% of such party's
16 Adjudicated Right or two acre-feet, whichever is the larger.

17 In order to meet possible emergencies, each of the parties
18 to this action who is adjudged in paragraph IV hereof to have
19 an Adjudicated Right is permitted to extract from the Basin in
20 any water year for beneficial use an amount in excess of each
21 such party's Adjudicated Right not to exceed 2 acre-feet or ten
22 per cent (10%) of such party's Adjudicated Rights, whichever is
23 the larger, and in addition thereto, such greater amount as may
24 be approved by the Court. If such greater amount is recommended
25 by the Watermaster, such order of Court may be made ex parte.
26 Each such party so extracting water in excess of his Adjudicated
27 Rights shall be required to reduce his extractions below his
28 Adjudicated Rights by an equivalent amount in the water year
29 next following. Such requirement shall be subject to the
30 proviso that in the event the Court determines that such re-
31 duction will impose upon such a party, or others relying for
32 water service upon such party, an unreasonable hardship, the

1 Court may grant an extension of time within which such party
2 may be required to reduce his extractions by the amount of the
3 excess theretofore extracted by such party. If such extension
4 of time is recommended by the Watermaster, such order of Court
5 may be granted ex parte.

6 VII

7 The parties hereto whose names are preceded by an asterisk
8 (*) in paragraph IV hereof are signatories to the Agreement and
9 Stipulation for Judgment and have not specifically excepted to
10 the Exchange Pool Provisions thereof. The provisions of this
11 paragraph VII shall be binding upon and applicable to such
12 signatory parties and to such other parties as may elect to be
13 bound hereby, as hereinafter provided.

14 1. Not less than sixty (60) days prior to the beginning
15 of each water year, each party having water available to him
16 through then existing facilities, other than water which any
17 such party has the right to extract hereunder, shall file with
18 the Watermaster the offer of such party to release to the
19 Exchange Pool the amount by which such party's Adjudicated
20 Right exceeds one-half of the estimated total required use of
21 water by such party during the ensuing water year, provided
22 that the amount required to be so offered for release shall
23 not exceed the amount such party can replace with water so
24 available to him.

25 Such estimate of total required use and such mandatory
26 offer shall be made in good faith and shall state the basis on
27 which the offer is made, and shall be subject to review and
28 redetermination by the Watermaster, who may take into considera-
29 tion the prior use by such party for earlier water years and
30 all other factors indicating the amount of such total required
31 use and the availability of replacement water.

32

1 Any party filing an offer to release water under the
2 mandatory provisions of this paragraph VII may also file a
3 voluntary offer to release any part or all of any remaining
4 amount of water which such party has the right under this
5 judgment to pump or otherwise extract from the Basin, and any
6 party who is not required to file an offer to release water may
7 file a voluntary offer to release any part or all of the amount
8 of water which such party has the right under this judgment to
9 pump or otherwise extract from the Basin. All such voluntary
10 offers shall be made not less than sixty (60) days prior to
11 the beginning of each water year.

12 2. Each offer to release water under the foregoing sub-
13 paragraph shall be at the price per acre-foot declared and
14 determined at the time of the filing of such offer by the
15 releasing party; provided:

16 (a) That such price per acre-foot shall not
17 exceed the price which the releasing party would
18 have to pay to obtain from others, in equal monthly
19 amounts, through existing facilities, a quantity of
20 water equal in amount to that offered to be released, or

21 (b) If any such releasing party has no existing
22 facilities through which to obtain water from others,
23 such price shall not exceed the sum of the price per
24 acre-foot charged by The Metropolitan Water District
25 of Southern California to West Basin Municipal Water
26 District plus the additional amount per acre-foot
27 charged by the latter to municipalities and public
28 utilities for water received from The Metropolitan
29 Water District of Southern California.

30 3. In the event of a dispute as to any price at which
31 water is offered for release, any party affected thereby may,
32 within thirty (30) days thereafter, by an objection in writing,

1 refer the matter to the Watermaster for determination. Within
2 thirty (30) days after such objection is filed the Watermaster
3 shall consider said objection and shall make his finding as to
4 the price at which said water should be offered for release and
5 notify all interested parties thereof. Any party to these
6 Exchange Pool Provisions may file with the Court, within thirty
7 (30) days thereafter, any objection to such finding or deter-
8 mination of the Watermaster and bring the same on for hearing
9 before the Court at such time as the Court may direct, after
10 first having served said objection upon each of the interested
11 parties. The Court may affirm, modify, amend or overrule such
12 finding or determination of the Watermaster. Pending such
13 determination if the water so offered has been allocated, the
14 party making the offer shall be paid the price declared in his
15 offer, subject to appropriate adjustment upon final determina-
16 tion. The costs of such determination shall be apportioned or
17 assessed by the Watermaster in his discretion between or to the
18 parties to such dispute, and the Watermaster shall have the
19 power to require, at any time prior to making such determina-
20 tion, any party or parties to such dispute to deposit with the
21 Watermaster funds sufficient to pay the cost of such determina-
22 tion, subject to final adjustment and review by the Court as
23 provided in this paragraph.

24 4. Not less than sixty (60) days prior to the beginning
25 of each water year any party whose estimated required use of
26 water during the ensuing water year exceeds the sum of the
27 quantity of water which such party has the right under this
28 judgment to extract from the Basin and the quantity available
29 to him through then existing facilities, may file with the
30 Watermaster a request for the release of water in the amount
31 that his said estimated use exceeds his said available supply.
32 Such request shall be made in good faith and shall state the

1 basis upon which the request is made, and shall be subject to
2 review and redetermination by the Watermaster. Within thirty
3 (30) days thereafter the Watermaster shall advise, in writing,
4 those requesting water of the estimated price thereof. Any
5 party desiring to amend his request by reducing the amount re-
6 quested may do so after the service of such notice. Prior to
7 the first day of each water year the Watermaster shall determine
8 if sufficient water has been offered to satisfy all requests.
9 If he determines that sufficient water has not been offered he
10 shall reduce such requests pro rata in the proportion that each
11 requests bears to the total of all requests. Thereupon, not
12 later than said first day of each water year, he shall advise
13 all parties offering to release water of the quantities to be
14 released by each and accepted in the Exchange Pool and the price
15 at which such water is offered. Simultaneously, he shall advise
16 all parties requesting water of the quantities of released water
17 allocated from the Exchange Pool and to be taken by each party
18 and the price to be paid therefor.

19 5. In allocating water which has been offered for release
20 to the Exchange Pool under subparagraph 1, the Watermaster shall
21 first allocate that water required to be offered for release and
22 which is offered at the lowest price pursuant to subparagraph 2,
23 and progressively thereafter at the next lowest price or prices.
24 If the aggregate quantity of water required to be released is
25 less than the aggregate quantity of all request for the release
26 of water made pursuant to subparagraph 4, he shall then allocate
27 water voluntarily offered for release and which is offered at the
28 lowest price and progressively thereafter at the next lowest price
29 or prices, provided that the total allocation of water shall not
30 exceed the aggregate of all requests for the release of water.

31 Any water offered for release under subparagraph 1 hereof
32 and not accepted in the Exchange Pool and not allocated therefrom

1 shall be deemed not to have been offered for release and may be
2 extracted from the Basin by the party offering such water for
3 release as if the offer had not been made.

4 Each party requesting the release of water for his use and
5 to whom released water is allocated from the Exchange Pool may
6 thereafter, subject to all of the provisions of this judgment,
7 extract such allocated amount of water from the Basin, in addition
8 to the amount such party is otherwise entitled to extract here-
9 under during the water year for which the allocation is made.

10 6. From and after the first day of each water year, all
11 water extracted from the Basin by any party requesting the re-
12 lease of water and to whom water is allocated shall be deemed
13 to have been water released until the full amount released for
14 use by him shall have been taken, and no such party shall be
15 deemed to have extracted from the Basin any water under his own
16 right so to do until said amount of released water shall have
17 been extracted. Water extracted from the Basin by parties
18 pursuant to their request for the release of water shall be
19 deemed to have been taken by the offerors of such water under
20 their own rights to extract water from the Basin.

21 7. All parties allocated water under subparagraph 4 shall
22 pay a uniform price per acre-foot for such water, which price
23 shall be the weighted average of the prices at which the water
24 allocated was offered for release.

25 Each party shall pay to the Watermaster, in five equal
26 installments, an amount equal to the quantity of water allocated
27 to him multiplied by said uniform price. The Watermaster shall
28 bill each such party monthly for each such installment, the
29 first such billing to be made on or before the first day of
30 November of the water year involved, and payment therefor shall
31 be made to the Watermaster within thirty (30) days after the
32 service of each such statement. If such payment be not made

1 within said thirty (30) days such payment shall be delinquent
2 and a penalty shall be assessed thereon at the rate of 1% per
3 month until paid. Such delinquent payment, including penalty,
4 may be enforced against any party delinquent in payment by
5 execution or by suit commenced by the Watermaster or by any
6 party hereto for the benefit of the Watermaster.

7 Promptly upon receipt of such payment, the Watermaster shall
8 make payment for the water released and allocated, first, to the
9 party or parties which offered such water at the lowest price,
10 and then through successive higher offered prices up to the total
11 allocated.

12 8. Parties to this action who are not signatories to said
13 Agreement and Stipulation for Judgment, or who having signed
14 said Agreement have specifically excepted to the Exchange Pool
15 Provisions thereof, shall upon filing with this Court and with
16 the Watermaster their agreement to be bound by this paragraph VII,
17 be entitled to the benefits of and be obligated by the provisions
18 of this paragraph VII.

19 VIII

20 No taking of water under paragraph VII hereof, by any party
21 to this action shall constitute a taking adverse to any other
22 party; nor shall any party to this action have the right to plead
23 the statute of limitations or an estoppel against any other party
24 by reason of his said extracting of water from the Basin pursuant
25 to a request for the release of water; nor shall such release of
26 water to the Exchange Pool by any party constitute a forfeiture or
27 abandonment by such party of any part of his Adjudicated Right to
28 water; nor shall such release in anywise constitute a waiver of
29 such right, although such water, when released under the terms
30 of this judgment may be devoted to a public use; nor shall such
31 release of water by any such party in anywise obligate any party
32 so releasing to continue to release or furnish water to any other

1 party or his successor in interest, or to the public generally,
2 or to any part thereof, otherwise than as provided herein.

3 IX

4 In order to assist the Court in the administration and en-
5 forcement of the provisions of this judgment and to keep the
6 Court fully advised in the premises, the Watermaster shall have
7 the following duties in addition to those provided for elsewhere
8 herein:

9 1. The Watermaster may require each party, at such party's
10 own expense, to measure and record not more often than once a
11 month, the elevation of the static water level in such of his
12 wells in the Basin as are specified by the Watermaster.

13 2. The Watermaster may require any party hereto owning
14 any facilities for pumping or otherwise extracting water from
15 the Basin, at such party's own expense, to install ^{at} and/all times
16 maintain in good working order mechanical measuring devices
17 approved by the Watermaster, and keep records of water production
18 required by the Watermaster through the use of such devices.
19 However, if in the opinion of the Watermaster such mechanical
20 devices are not practicable or feasible, the Watermaster may
21 require such party to submit estimates of his water production,
22 together with such information and data as is used by such party
23 in making such estimate. Upon the failure of any party to install
24 such device or devices on or before the date the Watermaster shall
25 fix for such installation, or to provide the Watermaster with
26 estimates of water production and information on which such
27 estimates are based, the Watermaster may give the Court and the
28 party notice of such failure for proper action in the premises.

29 3. The Watermaster shall collect and assemble the records
30 and other data required of the parties hereto, and evaluate such
31 records and other data. Such records and other data shall be
32 open to inspection by any party hereto or his representative

1 during normal business hours.

2 4. The Watermaster shall prepare a tentative budget for
3 each water year, stating the estimated expense for administering
4 the provisions of this judgment. The Watermaster shall mail a
5 copy of said tentative budget to each of the parties hereto
6 having an Adjudicated Right at least sixty (60) days before the
7 beginning of each water year. If any such party has any object-
8 ion to said tentative budget or any suggestions with respect
9 thereto, he shall present the same in writing to the Watermaster
10 within fifteen (15) days after service of said tentative budget
11 upon him. If no objections are received, the tentative budget
12 shall become the final budget. If objections to said tentative
13 budget are received, the Watermaster shall, within ten (10) days
14 thereafter, consider such objections, prepare a final budget,
15 and mail a copy thereof to each such party, together with a state-
16 ment of the amount assessed to each such party, computed as pro-
17 vided in subparagraph 5 of this paragraph IX. Any such party
18 whose objections to said tentative budget are denied in whole
19 or in part by the Watermaster may, within fifteen (15) days after
20 the service of the final budget upon him, make written objection
21 thereto by filing his objection with the Court after first mail-
22 ing a copy of such objection to each such party, and shall bring
23 such objection on for hearing before the Court at such time as
24 the Court may direct. If objection to such budget be filed with
25 the Court as herein provided, then the said budget and any and
26 all assessments made as herein provided may be adjusted by the
27 Court.

28 5. The fees, compensation or other expenses of the Water-
29 master hereunder shall be borne by the parties hereto having
30 Adjudicated Rights in the proportion that each such party's
31 Adjudicated Right bears to the total Adjudicated Rights of all
32 such parties, and the Court or Watermaster shall assess such costs

1 to each such party accordingly.

2 Payment thereof, whether or not subject to adjustment by
3 the Court as provided in this paragraph IX, shall be made by
4 each such party, on or prior to the beginning of the water year
5 to which said final budget and statement of assessed costs is
6 applicable. If such payment by any party is not made on or be-
7 fore said date, the Watermaster shall add a penalty of 5% there-
8 of to such party's statement. Payment required of any party
9 hereunder may be enforced by execution issued out of the Court,
10 or as may be provided by any order hereinafter made by the Court,
11 or by other proceedings by the Watermaster or by any party hereto
12 on the Watermaster's behalf.

13 All such payments and penalties received by the Watermaster
14 shall be expended by him for the administration of this judgment.
15 Any money remaining at the end of any water year shall be avail-
16 able for use the following year.

17 6. The Watermaster shall prepare an annual report within
18 ninety (90) days after the end of each water year covering the
19 work of the Watermaster during the preceding water year and a
20 statement of his receipts and expenditures.

21 7. The Watermaster shall report separately, in said annual
22 report, all water extractions in the Basin by producers who have
23 no "Adjudicated Right."

24 8. The Watermaster shall perform such other duties as may
25 be provided by law.

26 X

27 Any party hereto having an Adjudicated Right who has object-
28 ion to any determination or finding made by the Watermaster,
29 other than as provided in paragraphs VII and IX hereof, may
30 make such objection in writing to the Watermaster within thirty
31 (30) days after the date the Watermaster gives written notice
32 of the making of such determination or finding, and within thirty

1 (30) days thereafter the Watermaster shall consider said object-
2 ion and shall amend or affirm his finding or determination and
3 shall give notice thereof to all parties hereto having Adjudi-
4 cated Rights. Any such party may file with the Court within
5 thirty (30) days from the date of said notice any objection to
6 such final finding or determination of the Watermaster and bring
7 the same on for hearing before the Court at such time as the
8 Court may direct, after first having served said objection upon
9 each of the parties hereto having an Adjudicated Right. The
10 Court may affirm, modify, amend or overrule any such finding or
11 determination of the Watermaster.

12 XI

13 The Court hereby reserves continuing jurisdiction and,
14 upon application of any party hereto having an Adjudicated Right
15 or upon its own motion, may review (1) its determination of the
16 safe yield of the Basin, or, (2) the Adjudicated Rights, in
17 the aggregate, of all of the parties as affected by the abandon-
18 ment or forfeiture of any such rights, in whole or in part, and
19 by the abandonment or forfeiture of any such rights by any other
20 person or entity, and, in the event material change be found, to
21 adjudge that the Adjudicated Right of each party shall be ratably
22 changed; provided, however, that notice of such review shall be
23 served on all parties hereto having Adjudicated Rights at least
24 thirty (30) days prior thereto. Except as provided herein, and
25 except as rights decreed herein may be abandoned or forfeited in
26 whole or in part, each and every right decreed herein shall be
27 fixed as of the date of the entry hereof.

28 XII

29 The Court further reserves jurisdiction so that at any time
30 and from time to time, upon its own motion or upon application
31 of any party hereto having an Adjudicated Right, and upon at
32 least thirty (30) days notice to all such parties, to make such

1 modifications of or such additions to, the provisions of this
2 judgment, or make such further order or orders as may be neces-
3 sary or desirable for the adequate enforcement, protection or
4 preservation of the rights of such parties as herein determined.

5 XIII

6 The objections to the Report of Referee and to all supple-
7 mental Reports thereto, having been considered upon exceptions
8 thereto filed with the clerk of the Court in the manner of and
9 within the time allowed by law, are overruled.

10 XIV

11 All future notices, requests, demands, objections, reports,
12 and other papers and process in this cause shall be given, made
13 and/or served as follows:

14 1. Any party herein who, as hereafter provided, has
15 designated or who designates the person to whom and the address
16 at which all said future notices, papers and process in this
17 cause shall be given, shall be deemed to have been served there-
18 with when the same has been served by mail on such party's
19 designee.

20 (a) All parties herein who have executed
21 and filed with the Court "Agreement and Stipulation
22 for Judgment" and have therein designated a person
23 thereafter to receive said notices, papers and/or
24 process, have therein and thereby made such designa-
25 tion for said purpose, and such designation shall
26 become effective upon the entry of this judgment.

27 (b) All other parties who desire to name a
28 designee for the aforesaid purpose, or any party
29 once having named a designee who desires to change
30 his designee shall file such designation or change
31 of designee with the clerk of this Court and shall
32 serve a copy thereof by mail on the Watermaster.

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DEC 03 2014

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County of Los Angeles

DEC 05 2014

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12 GOLDEN STATE WATER COMPANY

13 SUPERIOR COURT OF THE STATE OF CALIFORNIA
14 FOR THE COUNTY OF LOS ANGELES

15 CALIFORNIA WATER SERVICE
16 COMPANY, et al.,

17 Plaintiff,

18 vs.

19 CITY OF COMPTON, et al.,

20 Defendant.

Case No. C 506 806
[Related to Case No. C 786656]

Assigned for All Purposes to the
Honorable Kenneth R. Freeman (Dept. 310)

AMENDED JUDGMENT

Action Filed: 7/21/1945

BROWNSTEIN HYATT FARBER SCHRECK, LLP
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1 The original judgment in this action was entered on August 18, 1961 (“Judgment”).
2 Pursuant to the reserved and continuing jurisdiction of the Court under the Judgment, certain
3 amendments to the Judgment and temporary orders have heretofore been made and entered.

4 Continuing jurisdiction of the Court under the Judgment is currently assigned to the
5 Honorable Richard Freeman.

6 The motion of Defendants the City of Inglewood, the City of Long Beach, the City of Los
7 Angeles, the City of Manhattan Beach, the City of Torrance, the California Water Service
8 Company, and the Golden State Water Company, and Intervenors the West Basin Municipal
9 Water District and the Water Replenishment District of Southern California, for further
10 amendments to the Judgment, notice thereof and of the hearing thereon having been duly and
11 regularly given to all Parties, came for hearing in Department 310 of the above-entitled Court on
12 December 9, 2014 at 9:00 a.m., before said Honorable Freeman.

13 This “Amended Judgment” incorporates prior amendments to the Judgment made
14 pursuant to the following Court orders: (1) Order Authorizing Temporary Mining Of Basin
15 entered on or about June 2, 1977, (2) Order Authorizing Temporary Mining Of Basin entered on
16 or about September 29, 1977, (3) Order approving Intervention After Judgment Of Hughes
17 Aircraft Company As A Party Defendant And Amending Amended Judgment Herein entered on
18 or about September 24, 1981, (4) Order Amending Judgment entered on or about March 8, 1989,
19 (5) Order entered on or about July 6, 1993, and (6) Order Amending Judgment To Provide
20 Exclusion Zone entered on or about December 21, 1995 (the “Prior Amendment Orders”). To the
21 extent this Amended Judgment is a restatement of the Judgment as heretofore amended, the Prior
22 Amendment Orders are incorporated into this Amended Judgment for convenience and not as a
23 re-adjudication of the matters encompassed in the Prior Amendment Orders.

24 **NOW, THEREFORE, IT IS HEREBY ORDERED, ADJUDGED AND DECREED**
25 **AS FOLLOWS:**

26
27
28

1 **I. EXISTENCE OF BASIN AND BOUNDARIES THEREOF**

2 There exists in the County of Los Angeles, State of California, an underground water
3 basin or reservoir known and hereinafter referred to as "West Coast Basin," "West Basin" or the
4 "Basin," and the boundaries thereof are described as follows:

5 Commencing at a point in the Baldwin Hills about 1300 feet north
6 and about 100 feet west of the intersection of Marvale Drive and
7 Northridge Drive; thence through a point about 200 feet
8 northeasterly along Northridge Drive from the intersection of
9 Marvale and Northridge Drives to the base of the escarpment of the
10 Potrero fault; thence along the base of the escarpment of the Potrero
11 fault in a straight line passing through a point about 200 feet south
12 of the intersection of Century and Crenshaw Boulevards and
13 extending about 2650 feet beyond this point to the southerly end of
14 the Potrero escarpment; thence from the southerly end of the
15 Potrero escarpment in a line passing about 700 feet south of the
16 intersection of Western Avenue and Imperial Boulevard and about
17 400 feet north of the intersection of El Segundo Boulevard and
18 Vermont Avenue and about 1700 feet south of the intersection of El
19 Segundo Boulevard and Figueroa Street to the northerly end of the
20 escarpment of the Avalon-Compton fault at a point on said fault
21 about 700 feet west of the intersection of Avalon Boulevard and
22 Rosecrans Avenue; thence along the escarpment of the Avalon-
23 Compton fault to a point in the Dominguez Hills located about
24 1300 feet north and about 850 feet west of the intersection of
25 Central Avenue and Victoria Street; thence along the crest of the
26 Dominguez Hills in a straight line to a point on Alameda Street
27 about 2900 feet north of Del Amo Boulevard as measured along
28 Alameda Street; thence in a straight line extending through a point
located on Del Amo Boulevard about 900 feet west of the Pacific
Electric Railway to a point about 100 feet north and west of the
intersection of Bixby Road and Del Mar Avenue; thence in a
straight line to a point located about 750 feet west and about 730
feet south of the intersection of Wardlow Road and Long Beach
Boulevard at the escarpment of the Cherry Hill fault; thence along
the escarpment of the Cherry Hill fault through the intersection of
Orange Avenue and Willow Street to a point about 400 feet east of
the intersection of Walnut and Creston Avenues; thence to a point
on Pacific Coast Highway about 300 feet west of its intersection
with Obispo Avenue; thence along Pacific Coast Highway easterly
to a point located about 650 feet west of the intersection of the
center line of said Pacific Coast Highway with the intersection of
the center line of Lakewood Boulevard; thence along the
escarpment of the Reservoir Hill fault to a point about 650 feet
north and about 700 feet east of the intersection of Anaheim Street
and Ximeno Avenue; thence along the trace of said Reservoir Hill
fault to a point on the Los Angeles - Orange County line about
1700 feet northeast of the Long Beach City limit measured along
the County line; thence along said Los Angeles - Orange County
line in a southwesterly direction to the shore line of the Pacific
Ocean; thence in a northerly and westerly direction along the shore
line of the Pacific Ocean to the intersection of said shore line with

1 the southerly end of the drainage divide of the Palos Verdes Hills;
2 thence along the drainage divide of the Palos Verdes Hills to the
3 intersection of the northerly end of said drainage divide with the
4 shore line of the Pacific Ocean; thence northerly along the shore
5 line of the Pacific Ocean to the intersection of said shore line with
6 the westerly projection of the crest of the Ballona escarpment;
7 thence easterly along the crest of the Ballona escarpment to the
8 mouth of Centinela Creek; thence easterly from the mouth of
9 Centinela Creek across the Baldwin Hills in a line encompassing
10 the entire watershed of Centinela Creek to the point of beginning.

11 All streets, railways and boundaries of Cities and Counties hereinabove are referred to as
12 the same existed at 12:00 o'clock noon on August 20, 1961.

13 The area included within the foregoing boundaries is approximately 101,000 acres in
14 extent.

15 **II. DEFINITIONS**

16 1. "*Administrative Body*" is defined in Section XI.2.A. The Administrative Body is
17 one of the three bodies that comprises the Watermaster.

18 2. "*Administrative Year*" means the 12 (twelve) month period beginning July 1 and
19 ending June 30.

20 3. "*Adjudicated Right*" means the right of a Party to produce groundwater in a
21 quantity greater than 0 (zero) pursuant to the rights authorized under Section III of this Amended
22 Judgment.

23 4. "*Adjudicated Storage Capacity*" means 70,900 acre-feet of the Available
24 Dewatered Space, unless otherwise modified in accordance with Section V.1.A herein, which has
25 been apportioned for use herein for Individual Storage Allocation, Community Storage Pool, and
26 Regional Storage Allocation.

27 5. "*Amended Judgment*" means the Judgment, as amended to date.

28 6. "*Available Dewatered Space*" means up to 120,000 acre feet of dewatered space
available to hold groundwater within the West Coast Basin that is allocated between Adjudicated
Storage Capacity and Basin Operating Reserve.

7. "*Basin,*" "*West Basin,*" and "*West Coast Basin*" as these terms are interchangeably
used herein, each means the ground water basin underlying the area described in Section I hereof.

1 8. “*Basin Operating Reserve*” means a total of 49,100 acre-feet of Available
2 Dewatered Space, unless otherwise modified in accordance with Section V.1.A herein, available
3 for Basin operations as provided in Section V.2. The Basin Operating Reserve added to the
4 Adjudicated Storage Capacity equals the amount of Available Dewatered Space.

5 9. “*Carryover*” is defined in Section V.4.

6 10. “*Carryover Conversion*” means the process of converting water properly held as
7 Carryover into Stored Water.

8 11. “*CEQA*” refers to the California Environmental Quality Act, Public Resources
9 Code § 21000 *et seq.* and its implementing regulations set forth at California Code of
10 Regulations, Title 14, Chapter 3, which regulations shall be referred to herein as the “*CEQA*
11 *Guidelines*.”

12 12. “*CEQA Review Document*” means the final Environmental Impact Report,
13 Negative Declaration or Mitigated Negative Declaration, prepared by or on behalf of the lead
14 agency under CEQA.

15 13. “*Community Storage Pool Allocation*” is defined in Section V.6.A.

16 14. “*Contributed Water*” means a specified amount of Stored Water that the person or
17 entity who stores water agrees to not recapture and to allow to remain in the Basin.

18 15. “*Developed Water*” includes Imported Water and other non-native water supplies.

19 16. “*Existing Facilities*” means those facilities described in Exhibit C to this Amended
20 Judgment as well as completed New Storage Facilities approved in accordance with this
21 Amended Judgment.

22 17. “*Extraction*,” “*extractions*,” “*extracting*,” “*extracted*,” and other variations of the
23 same noun and verb in either initial capital or all lower case, mean pumping, taking, diverting or
24 withdrawing groundwater by any manner or means whatsoever from the West Coast Basin.

25 18. “*Individual Storage Allocation*” is defined in Section V.5.

26 19. “*Imported Water*” means water brought into the West Coast Basin area from a
27 non-tributary source by a Party, and any predecessors in interest.

28 20. “*Majority Protest*” means a written protest filed with the Administrative Body of

1 the Watermaster by Parties holding a majority of all Adjudicated Rights.

2 21. “*Material Physical Harm*” means material physical injury or an appreciable
3 diminution in the quality or quantity of groundwater available within the Basin to support
4 extractions pursuant to Adjudicated Rights or the right to extract Stored Water that is
5 demonstrated to be attributable to the placement, recharge, injection, storage, transfer or recapture
6 of Stored Water, including, but not limited to, degradation of water quality, liquefaction, land
7 subsidence and other material physical injury caused by elevated or lowered groundwater levels.
8 Material Physical Harm does not include “economic injury” that results from other than direct
9 physical causes, including any adverse effect on water rates, lease rates, or demand for water.
10 Once fully mitigated, physical injury shall no longer be considered to be material.

11 22. “*MWD*” means the Metropolitan Water District of Southern California.

12 23. “*New Storage Facility*” means a physical facility that can be used to introduce
13 Stored Water or water from a Water Augmentation Project into the Basin, including but not
14 limited to aquifer storage and recovery wells, injection wells, percolation ponds and spreading
15 basins, that are not listed on Exhibit C to this Amended Judgment. Once completed and approved
16 in accordance with this Amended Judgment, a New Storage Facility shall be deemed an Existing
17 Facility for purposes of this Amended Judgment.

18 24. “*Outgoing Watermaster*” means the State of California, Department of Water
19 Resources.

20 25. “*Party*” or “*Parties*” means a Party or Parties to this action.

21 26. “*Person*” or “*persons*” include individuals, partnerships, associations, govern-
22 mental agencies and corporations, and any and all types of entities.

23 27. “*Regional Benefit*” means a contribution to or an advantage obtained by the Basin,
24 the public, or the environment, including but not limited to (i) Contributed Water; (ii) additional
25 infrastructure such as production wells or transmission pipelines that can be used by other Parties
26 or WRD to enhance reliability of water supplies; or (iii) monetary payments. If the Regional
27 Benefit is Contributed Water, the Contributed Water must be physical, “wet” water left in the
28 Basin, which may be used by WRD as a source of Replenishment Water and thereby reduce the

1 otherwise applicable Replenishment Assessment. The value of the Contributed Water will be
2 determined by multiplying the amount of Contributed Water by the appropriate rate for Imported
3 Water purchased or acquired by WRD in the Basin.

4 28. “*Regional Storage Project(s)*” are defined in Section V.7.

5 29. “*Regional Storage Allocation*” is defined in Section V.7.

6 30. “*Replenishment Assessment*” means the replenishment assessment imposed by
7 WRD upon each acre-foot of groundwater extracted from the West Coast Basin pursuant to the
8 WRD Act and in compliance with all other laws of the State of California and any other
9 applicable laws. This Amended Judgment shall not determine nor affect the determination of
10 whether a Replenishment Assessment is valid or invalid in the event that any Replenishment
11 Assessment is challenged in a legal action.

12 31. “*Replenishment Water*” means water that, in accordance with the WRD Act, WRD
13 affirmatively captures or procures to replenish the Basin by percolating or injecting water into the
14 Basin or in-lieu by substituting surface water in-lieu of production and use of groundwater in
15 accordance with the WRD Act. To the extent WRD hereafter creates new means of capturing
16 naturally occurring water and causing such newly-captured water to replenish the West Coast
17 Basin, such newly-captured replenishment water shall also be considered “Replenishment
18 Water.”

19 32. “*Space-Available Storage*” is defined at Section V.10.

20 33. “*Storage Panel*” means a bicameral body that consists of the: (i) West Coast Basin
21 Water Rights Panel, and (ii) Board of Directors of WRD. The Storage Panel is one of three
22 bodies that comprise the Watermaster.

23 34. “*Storage Project*” means a Technically Feasible activity pertaining to the
24 placement, recharge, injection, storage, transfer or recapture of Stored Water in the Basin.
25 Storage Project(s) includes Regional Storage Projects.

26 35. “*Stored Water*” or “*Store Water*” means water held within any portion of the
27 Available Dewatered Space in the West Coast Basin as a result of spreading, injection, Carryover
28 Conversion or water from a Water Augmentation Project, where there is an intention to

1 subsequently withdraw the water for reasonable and beneficial use pursuant to the Amended
2 Judgment.

3 36. “*Technically Feasible*” means capable of being accomplished in a successful
4 manner within a reasonable period of time, taking into account environmental and technological
5 factors.

6 37. “*Total Adjudicated Production Rights*” means the sum of a Party’s Adjudicated
7 Rights and any contractual right through lease or other agreement to extract and use the
8 Adjudicated Right of another Party.

9 38. “*Water Augmentation Project*” means pre-approved Technically Feasible physical
10 actions and management activities that are initiated after entry of this Amended Judgment that
11 provide demonstrated appreciable increases in long-term annual groundwater yield of the Basin.

12 39. “*Watermaster*” is comprised of the: (i) Administrative Body, (ii) Water Rights
13 Panel, and (iii) Storage Panel. The Watermaster is not a “public agency” or a “trustee agency”
14 within the meaning of CEQA and CEQA Guidelines 15379 and 15386.

15 40. “*Water Purveyor*” means a Party which sells water to the public, whether a
16 regulated public utility, mutual water company, or public entity, which has a connection or
17 connections for the taking of Imported Water through the MWD, through a MWD-member
18 agency, or access to such Imported Water through such connection, and which normally supplies
19 at least a part of its customers’ water needs with such Imported Water.

20 41. “*Water Rights Panel*” means one of the three bodies that comprise the
21 Watermaster consisting of five (5) members from among representatives of the Parties holding
22 Adjudicated Rights. Three (3) of the members shall be the elected officers of president, vice-
23 president and treasurer of the West Basin Water Association and the remaining two (2) members
24 shall be selected by the Board of Directors of the West Basin Water Association in accordance
25 with Section XI.2.B of the Amended Judgment.

26 42. “*Watermaster Rules*” mean the Rules that the Watermaster shall adopt, subject to
27 Court approval, pursuant to Section XI.1.E of the Amended Judgment.

28 43. “*WRD*” means the Water Replenishment District of Southern California, a public

1 corporation of the State of California (Division 18, commencing with Section 60000 of the Water
2 Code).

3 44. "WRD Act" means the Water Replenishment District Act, California Water Code
4 Sections 60000 *et seq.*

5 **III. DECLARATION OF RIGHTS - WATER RIGHTS ADJUDICATED**

6 A. Certain of the Parties and/or their successors in interest are the owners of
7 Adjudicated Rights to extract water from the Basin, which Adjudicated Rights are of the same
8 legal force and effect and without priority with reference to each other. The amount of such
9 Adjudicated Rights, stated in acre-feet per year, of each of these Parties, as of the date of this
10 Amended Judgment, is set forth in Exhibit A to this Amended Judgment and is hereby declared
11 and established accordingly. Provided, however, that the Adjudicated Rights so declared and
12 established shall be subject to the condition that the water produced, when used, shall be put to
13 beneficial use through reasonable methods of use and reasonable methods of diversion; and
14 provided further that the exercise of all of said Adjudicated Rights shall be subject to a pro rata
15 reduction, if such reduction is required, to preserve said Basin as a common source of water
16 supply.

17 B. Certain of the Parties have no Adjudicated Rights to extract water from the
18 Basin. The name of each of said Parties, as of the date of this Amended Judgment, is listed in
19 Exhibit A with a zero following its name, and the absence of such Adjudicated Rights in said
20 Parties is hereby established and declared.

21 C. As provided in Exhibit B to this Judgment, there is hereby established a
22 "nonconsumptive water use right" in the Basin, which is subordinate to the Adjudicated Rights
23 set forth in Section III hereof and which right is exercisable only on specifically defined lands and
24 cannot be separately conveyed or transferred apart therefrom.

25 D. As further provided in Exhibit B to this Judgment, any party herein may
26 petition the Administrative Body, acting on behalf of the Watermaster, for a non-consumptive
27 water use permit as part of a project to recover old refined oil or other pollutants that has leaked
28 into the underground aquifers of the Basin.

1 **IV. TRANSFERABILITY OF RIGHTS**

2 All Adjudicated Rights decreed and adjudicated herein, and the right to extract Stored
3 Water stored within the Basin pursuant to the provisions herein, may be transferred, assigned,
4 licensed or leased by the owner thereof provided, however, that no such transfer shall be complete
5 until compliance with the appropriate notice procedures established by the Watermaster herein.

6 **V. PHYSICAL SOLUTION – BASIN STORAGE, CARRYOVER, BASIN**
7 **OPERATING RESERVE, AND EXCESS PRODUCTION**

8 **1. Determination of Available Dewatered Space**

9 A. There exists within the Basin Available Dewatered Space which has not
10 been optimally utilized for Basin management and storage of native water and Developed Water.
11 The Court finds and determines that: (i) there is up to one hundred and twenty thousand (120,000)
12 acre-feet of Available Dewatered Space in the Basin; (ii) use of the Available Dewatered Space
13 will increase reasonable and beneficial use of the Basin by permitting the more efficient
14 procurement and management of Replenishment Water and allowing Parties to have Stored Water
15 in the Basin, thereby increasing the conservation of water and reliability of the water supply
16 available to all Parties; and (iii) compliance with the terms, conditions and procedures set forth in
17 this Amended Judgment is meant to prevent Material Physical Harm to the Basin associated with
18 the use of the Available Dewatered Space for Stored Water. If the Court determines, pursuant to
19 Section XIII of this Judgment, that the amount of Available Dewatered Space is more than or less
20 than 120,000 acre-feet, then the Court shall equitably adjust the amount of the Basin Operating
21 Reserve and Adjudicated Storage Capacity such that no more than 40.9% of the Available
22 Dewatered Space is allocated to the Basin Operating Reserve. No Party shall Store Water in the
23 Basin except in the Available Dewatered Space in conformity with this Amended Judgment.

24 B. It is essential that use of the Available Dewatered Space be undertaken for
25 the greatest public benefit pursuant to uniform, certain and transparent regulation that encourages
26 the conservation of water and reliability of the water supply, avoids Material Physical Harm, and
27 promotes the reasonable and beneficial use of water. Accordingly, in the event the Watermaster
28 becomes aware of the development of Material Physical Harm, or a reasonably foreseeable or

1 imminent threat of the development of Material Physical Harm, relating to the use of the
2 Available Dewatered Space, the Watermaster shall (i) promptly take all reasonably necessary
3 action to cease or avoid such harm as authorized under this Amended Judgment and the
4 Watermaster Rules, and (ii) notice a hearing within thirty (30) days before the Court and
5 concurrently file a report with the Court, served on all Parties, which shall explain the relevant
6 facts then known by the Watermaster relating to the Material Physical Harm, or imminent threat
7 thereof, including without limitation, the location of the occurrence, the source or cause, existing
8 and potential physical impacts or consequences of the identified or threatened Material Physical
9 Harm, all actions taken by the Watermaster to cease or avoid such harm, and any other
10 recommendations to remediate the identified or threatened Material Physical Harm.

11 C. To fairly balance the needs of the divergent interests of Parties having
12 Adjudicated Rights in the Basin, on the one hand, and the role of WRD on the other hand, and in
13 consideration of the shared desire and public purpose of removing impediments to the voluntary
14 conservation, storage, exchange and transfer of water, the Available Dewatered Space is
15 apportioned into complementary classifications of forty-nine thousand one hundred (49,100) acre-
16 feet of Basin Operating Reserve and seventy thousand nine hundred (70,900) acre-feet of
17 Adjudicated Storage Capacity as set forth in this Section V. The apportionment contemplates
18 flexible administration of storage capacity where use is apportioned among competing needs,
19 while allowing Available Dewatered Space to be used from time to time as Space-Available
20 Storage, subject to the priorities specified in this Amended Judgment.

21 **2. Basin Operating Reserve**

22 A. It is in the public interest for WRD to prudently exercise its discretion to
23 purchase, spread, and inject water, to provide for in-lieu replenishment, and otherwise to fulfill its
24 replenishment function within the Basin in accordance with the WRD Act. Accordingly, this
25 Amended Judgment expressly recognizes that WRD may use the Basin Operating Reserve to
26 manage available sources of water and otherwise fulfill its replenishment functions. WRD may
27 allow naturally occurring water to occupy the Basin Operating Reserve, as needed and in its
28 discretion, but cannot thereupon assert ownership, control or possession over naturally occurring

1 water as Replenishment Water or Stored Water. WRD's priority right to use the Basin Operating
2 Reserve is not intended to allow WRD to sell or lease Stored Water within that portion of the
3 Available Dewatered Space.

4 B. WRD shall have forty-nine thousand, one hundred (49,100) acre-feet of
5 Available Dewatered Space as the Basin Operating Reserve in accordance with the WRD Act.

6 C. WRD shall have a first priority right to use the Basin Operating Reserve in
7 accordance with the WRD Act. WRD's first priority right to the Basin Operating Reserve is
8 absolute. To the extent that there is a conflict between WRD and any other Party regarding the
9 availability of and desire to use any portion of the Basin Operating Reserve, the interests of WRD
10 will prevail. Any dispute as to the use of any portion of the Basin Operating Reserve shall be
11 heard directly by the Court, after notice of hearing served on all Parties.

12 D. To the extent WRD does not require the use of some or all of the Basin
13 Operating Reserve, that portion of the Basin Operating Reserve that is not then being used shall
14 be available for Space-Available Storage in accordance with Section V.10 of this Amended
15 Judgment and provided that such Space-Available Storage will not impede WRD's use of the
16 Basin Operating Reserve. WRD's failure to use any portion of the Basin Operating Reserve for
17 any time will not cause forfeiture or limit WRD's absolute right to make use of the Basin
18 Operating Reserve in the future without compensation. Nothing herein shall permit WRD to limit
19 or encumber its right to use the Basin Operating Reserve in accordance with the WRD Act.

20 **3. Adjudicated Storage Capacity**

21 The Adjudicated Storage Capacity is further allocated among the following classifications
22 of Stored Water:

- 23 • Individual Storage Allocation: twenty-five thousand eight hundred (25,800) acre-feet.
- 24 • Community Storage Pool: thirty-five thousand five hundred (35,500) acre-feet.
- 25 • Regional Storage Allocation: nine thousand six hundred (9,600) acre-feet.

26 **4. Carryover**

27 A. In order to add flexibility to the operation of this Amended Judgment and
28 to assist in a physical solution to meet the water requirements in the West Coast Basin, each of

1 the Parties who is adjudged to have an Adjudicated Right and who, by the end of an
2 Administrative Year, does not extract from the Basin all of such Party's Total Adjudicated
3 Production Right, is permitted to carry over from such Administrative Year the right to extract
4 from the Basin in the immediately following Administrative Year an amount of water equivalent
5 to the amount of its Total Adjudicated Production Right that exceeds the amount of its actual
6 extraction during said Administrative Year of water pursuant to its Total Adjudicated Production
7 Right (hereinafter referred to as "Carryover"). Carryover, as computed above for a Party, shall be
8 reduced by the quantity of Stored Water then held in the Available Dewatered Space by that
9 Party at the commencement of the immediately following Administrative Year, although such
10 reduction shall not cause the amount of Carryover to be less than 20% of the Party's Total
11 Adjudicated Production Right.

12 B. A Party having Carryover may, from time to time, elect to convert all or
13 part of such Party's Carryover to Stored Water, as authorized herein, upon payment of the
14 Replenishment Assessment to WRD. The WRD shall maintain, account and use the
15 Replenishment Assessment paid for Carryover Conversion in accordance with the provisions of
16 Section XI.2(A)(5) of this Amended Judgment. Such Stored Water shall be assigned to that
17 Party's Individual Storage Allocation, if available, and otherwise to the Community Storage Pool,
18 and thereafter to then existing excess capacity within other Individual Storage Allocation, the
19 Regional Storage Allocation, and only then if all remaining space is fully occupied, to the Basin
20 Operating Reserve for Space-Available Storage.

21 C. By reason of this Court's Orders dated June 2, 1977 and September 29,
22 1977, for the water years 1976-77 and 1977-78 any Party (including any successor in interest) can
23 Carryover until utilized any Adjudicated Right (including any authorized Carryover from prior
24 years) unexercised during said water years. This Amended Judgment shall not abrogate the rights
25 of any additional Carryover of unused Adjudicated Rights of the Parties as may exist pursuant to
26 the Orders filed as of June 2, 1977 and September 29, 1977.

27 **5. Individual Storage Allocations**

28 A. Up to twenty-five thousand eight hundred (25,800) acre-feet of Available

1 Dewatered Space is apportioned among the Parties as “Individual Storage Allocation” for the
2 purpose of providing each Party holding an Adjudicated Right under the Amended Judgment with
3 a first priority right to use an amount of that Available Dewatered Space equal to approximately
4 forty percent (40%) of their respective Adjudicated Right. Water may be deposited into storage
5 and assigned to an Individual Storage Allocation either through Carryover Conversion or by other
6 means authorized under the Amended Judgment. The Individual Storage Allocation will be held
7 in the name of the Party holding the Adjudicated Right upon notice to the Storage Panel. To the
8 extent a Party does not require the use of some or all of its Individual Storage Allocation, that
9 portion of the Individual Storage Allocation that is not then being used shall be available for
10 Space-Available Storage as provided in Section V10.A.

11 B. A Party’s first priority right to its Individual Storage Allocation is absolute.
12 To the extent that there is a conflict between a Party holding an Adjudicated Right and any other
13 Party or WRD regarding the availability of and desire to use any portion of their Individual
14 Storage Allocation, the interests of the Party with the Individual Storage Allocation will prevail.
15 Any dispute as to the use of any portion of a Party’s Individual Storage Allocation shall be heard
16 directly by the Court, after notice of hearing served on all Parties.

17 **6. Community Storage Pool**

18 A. Up to thirty-five thousand five hundred (35,500) acre-feet of Available
19 Dewatered Space is apportioned for the use by all Parties to the Amended Judgment with
20 Adjudicated Rights on a shared or community basis, hereafter referred to as the “Community
21 Storage Pool.” A Party that has fully occupied its Individual Storage Allocation may, on a first-in
22 time, first in right basis (subject to the limits expressed below) place water into storage in the
23 Community Storage Pool upon notice to the Storage Panel. So long as there is available capacity
24 in the Community Storage Pool, any Party may store water in the Community Storage Pool,
25 through Carryover Conversion as provided herein or by any other means authorized under the
26 Amended Judgment, provided such Party has first fully occupied that Party’s available Individual
27 Storage Allocation.

28 B. So long as there is adequate storage capacity available within the

1 Community Storage Pool, any Party may store water through any authorized method up to the
2 prescribed limits of available capacity within the Community Storage Pool upon notice to the
3 Storage Panel.

4 C. After a Party effectively occupies Available Dewatered Space within the
5 Community Storage Pool and then withdraws water from the Community Storage Pool, that Party
6 shall be allowed a period of twenty-four (24) months to completely refill the vacated storage
7 capacity before the capacity will be determined abandoned and available for use by other Parties.
8 However, once the Basin's Community Storage Pool has been filled (35,500 acre-feet in storage),
9 a Party may exercise its twenty-four (24) month refill priority only once, and thereafter only
10 provided there is then capacity available to permit that Party to refill the vacated space. Except as
11 to space subject to the refill right, as provided herein, all access to the Community Storage Pool
12 shall be made available pursuant to a basis of first in time, first in right.

13 D. A Party that has maintained Stored Water in the Community Storage Pool
14 for ten (10) consecutive years shall be subject to the following provisions whenever the
15 Community Storage Pool is at least twenty-five percent (25%) occupied with Stored Water based
16 on an aggregate of all Parties holding Adjudicated Rights who have Stored Water in the
17 Community Storage Pool: (i) the Party may elect to have that Stored Water deemed transferred to
18 Space-Available Storage in accordance with Section V.10 of this Amended Judgment, but if such
19 an election is not made or there is no Space-Available Storage, then (ii) the Stored Water shall be
20 deemed extracted first in advance of all other extraction rights in subsequent years
21 (notwithstanding the order of production set forth in Section IX.2) until the Party's entire
22 Community Storage account has been extracted. After the Stored Water is either transferred to
23 Space Available Storage or extracted as provided herein, then said Party may thereafter make a
24 renewed use of Community Storage on terms equal to other Parties on a first in time, first in right,
25 and space-available basis.

26 **7. Regional Storage Allocation**

27 A. Up to nine thousand six hundred (9,600) acre feet of Available Dewatered
28 Space in the West Coast Basin (the "Regional Storage Allocation") is designated for "Regional

1 Storage Project(s)” that: (i) do not constitute Water Augmentation Projects by enhancing the
2 long-term reliable yield of the Basin; and (ii) require storage capacity in excess of Individual
3 Storage Allocations and the Community Storage Pool.

4 B. Regional Storage Projects must be pre-approved by the Storage Panel of
5 the Watermaster, as provided in Section V.12. The Storage Panel shall not approve a Regional
6 Storage Project unless the applicant demonstrates (i) a proposed place of use and beneficial use
7 for the water identified at the time of storage, and (ii) that the Regional Storage Project is
8 Technically Feasible, will not cause Material Physical Harm and will confer a “Regional
9 Benefit”.

10 C. It is anticipated that Regional Storage Projects will be the principal
11 category of storage for potential Storage Projects sponsored by, or for the benefit of, entities that
12 do not hold an Adjudicated Right, although any Party to the Judgment may also propose a
13 Regional Storage Project. Any entity which is not a Party to the Judgment who receives approval
14 of a Regional Storage Project shall intervene into the Judgment as a Party prior to commencing
15 the Regional Storage Project. A Regional Storage Project approved by the Storage Panel that
16 occupies space within the nine thousand six hundred (9,600) acre-feet of Available Dewatered
17 Space shall have a priority right to occupy the Regional Storage Allocation over any other use
18 being made on a space-available basis.

19 D. Regional Storage Projects may include in-lieu, Carryover Conversion,
20 physical improvements, recharge of “wet water” by spreading or injection, reducing the overall
21 cost for the WRD to perform its replenishment function, and other measures that propose to make
22 beneficial use of the designated storage capacity.

23 E. Parties receiving a right to Store Water pursuant to an approved Regional
24 Storage Project shall have the first priority right to Regional Storage Allocation. Stored Water
25 held in the Regional Storage Allocation by a Party with an Adjudicated Right as Space-Available
26 Storage is subject to the limits of an annual extraction of one hundred and twenty percent (120%)
27 of the storing Party’s Total Adjudicated Production Right or as otherwise specified in accordance
28 with Section IX.1 herein.

1 F. To the extent that some or all of the Regional Storage Allocation is unused,
2 that portion of the Regional Storage Allocation that is not then being used shall be available for
3 Space-Available Storage as provided in Section V10.A.

4 **8. Limitations on Storage**

5 A. Irrespective of the category of storage utilized, each Party with an
6 Adjudicated Right shall not cumulatively have in storage in the Available Dewatered Space at
7 any time Stored Water totaling more than two hundred percent (200%) of that Party's
8 Adjudicated Right. However, a Party with an Adjudicated Right less than 100 acre feet may store
9 water in the Available Dewatered Space up to 200 acre feet.

10 B. Notwithstanding the foregoing, a Party with an Adjudicated Right may
11 store additional water up to 50% of its Adjudicated Right in excess of the aforementioned limit of
12 200% of its Adjudicated Right in Space-Available Storage as provided in Section V.10 of this
13 Amended Judgment for a cumulative total of up to 250% of the Party's Adjudicated Right. Any
14 Party with an Adjudicated Right seeking to store water in excess of 200% of its Adjudicated
15 Right shall apply for additional storage from the Storage Panel, which shall determine whether
16 additional storage space is available in light of the amount of storage space being utilized by all
17 Parties and providing adequate protection for planned or anticipated storage projects by other
18 Parties. The Storage Panel shall establish requirements as part of the Watermaster Rules
19 including providing notice of such applications to all Parties, a means for objection, standards for
20 granting or denying such requests, and promulgate requirements governing the extraction of the
21 additional storage.

22 C. A Party without an Adjudicated Right who holds rights to store water in
23 the Regional Storage Allocation by virtue of an approved Regional Storage Project shall comply
24 with any extraction limits established by the Storage Panel in its approval of said Regional
25 Storage Project. Subject to the foregoing, the right to extract Stored Water in the Basin may be
26 freely transferred to another Party to this Amended Judgment, as permitted by Section IV.

27
28

1 **9. Extraction of Stored Water; Exemption from Replenishment Assessment**

2 The Court finds and declares that the extraction of Stored Water as permitted hereunder
3 does not constitute “production of groundwater” within the meaning of Water Code Section
4 60317 and that no Replenishment Assessment shall be levied on the extraction of Stored Water.
5 This determination reflects the practical application of certain provisions of this Amended
6 Judgment concerning storage of water and extraction of Stored Water, including without
7 limitation the following: (1). payment of the Replenishment Assessment is required upon
8 Carryover Conversion, which allows WRD to replenish the Basin (as addressed under Section
9 V.4(B); (2) Developed Water introduced into the Basin through spreading or injection for storage
10 by or on behalf of a Party using Individual Storage Allocation or Community Storage Pool (as
11 authorized under Sections V.5 and V.6), or pursuant to a Water Augmentation Project (as
12 authorized under Section V.11), which needs not be replenished by WRD requiring payment of
13 the Replenishment Assessment; and (3) with respect to Regional Storage Projects, a Regional
14 Benefit must be established as a prerequisite of such a project, the water from which need not be
15 replenished by WRD requiring payment of the Replenishment Assessment.

16 **10. Space-Available Storage, Relative Priority, and Dedication of Abandoned**
17 **Water**

18 A. To balance the need to protect first priority uses of storage and to
19 encourage the full utilization of the Adjudicated Storage Capacity and the Basin Operating
20 Reserve within the Available Dewatered Space, any Party with an Adjudicated Right may make
21 interim, temporary use of then currently unused Available Dewatered Space within (i) any
22 category of Adjudicated Storage Capacity, and then (ii) if all Adjudicated Storage Capacity is
23 being fully used for Stored Water, then within the Basin Operating Reserve (“Space-Available
24 Storage”), subject to the following criteria:

25 (1) Any Party with an Adjudicated Right may engage in Space-
26 Available Storage without prior approval from the Storage Panel of the Watermaster provided
27 that the storing Party or Parties with an Adjudicated Right shall assume all risks of waste and loss
28 regardless of the hardship.

1 (2) No Party with an Adjudicated Right may use any portion of the
2 Basin Operating Reserve for Space-Available Storage unless that Party with an Adjudicated Right
3 has already maximized its allowed storage pursuant to its Individual Storage Allocation and all
4 available Community Storage and Regional Storage is already in use.

5 (3) Space-Available Storage shall first utilize unused storage space
6 within the Individual Storage Allocation category, subject to the provisions in this Amended
7 Judgment, and the Regional Storage Allocation before utilizing any available unused storage
8 space within Community Storage. No utilization of Community Storage under Space-Available
9 Storage shall be counted in making determinations under Sections V.6.C. or V.6.D.

10 (4) Whenever the Administrative Body determines that a Party with an
11 Adjudicated Right is making use of excess Available Dewatered Space for Space-Available
12 Storage without prior approval from the Storage Panel, the Administrative Body shall issue
13 written notice to the Party with an Adjudicated Right informing them of the risk of loss and
14 inform that Party what space (Individual Allocation, Regional Storage, Community Pool or Basin
15 Operating Reserve) it is occupying on a Space-Available basis.

16 (5) Use of Space-Available Storage shall be administered in
17 accordance with the rule of first in time, first in right. The Party with an Adjudicated Right
18 holding the lowest priority right in Space-Available Storage shall assume responsibility for
19 evacuating their Stored Water as may be necessary to accommodate a Party with an Adjudicated
20 Right holding superior priority right. Any dispute concerning Space-Available Storage priorities,
21 except as to Basin Operating Reserve or the Individual Storage Allocation, shall be submitted first
22 to the Storage Panel for hearing and determination. The Storage Panel's determination, or lack
23 thereof, may be appealed by motion to the Court by any Party to the dispute. Any dispute
24 concerning the Community Storage Pool Allocation or the Regional Storage Allocation shall be
25 submitted first to the Storage Panel for hearing and determination. The Storage Panel's
26 determination, or lack thereof, may be appealed by motion to the Court by any Party to the
27 dispute.

28 (6) Whenever the Available Dewatered Space is needed to accom-

1 modate the priority use within a respective category of Adjudicated Storage Capacity, or WRD
2 seeks to make use of its priority right to the Basin Operating Reserve to fulfill its replenishment
3 function, the Storage Panel shall issue a notice to evacuate within ninety (90) days the respective
4 category of Adjudicated Storage Capacity or Basin Operating Reserve. Within sixty (60) days
5 after receipt of such a notice to evacuate, the Party with an Adjudicated Right receiving the notice
6 may provide a written election to the Storage Panel that it will store its Stored Water in any other
7 excess Available Dewatered Space first within the Adjudicated Storage Capacity, if available, and
8 then if all Adjudicated Storage Capacity is being fully used for Stored Water, then within the
9 Basin Operating Reserve, if available. The Party with an Adjudicated Right's Stored Water shall
10 be deemed spilled and dedicated to the Basin in furtherance of replenishment of the Adjudicated
11 Rights without compensation if the Party with an Adjudicated Right does not make a timely
12 election or if there is no excess Available Dewatered Space. No Stored Water will be deemed so
13 dedicated unless the cumulative quantity of water held as Stored Water in the Available
14 Dewatered Space exceeds one hundred and twenty thousand (120,000) acre-feet in the West
15 Coast Basin. Any dispute as to Stored Water threatening to be spilled or dedicated to the Basin
16 shall be submitted to the Court pursuant to a motion by any Party to the dispute after to the
17 expiration of sixty (60) days of the ninety-day period in the notice to evacuate.

18 B. A Party with an Adjudicated Right that seeks to convert the Stored Water
19 held as Space-Available Storage to a more firm right, may in their discretion, contract for the use
20 of another Party with an Adjudicated Right's Individual Storage Allocation, or may apply for
21 approval of its request as a Regional Storage Project, or may add such water to the Community
22 Storage Pool once space therein becomes available.

23 **11. Water Augmentation**

24 A. Physical and management actions of the Parties in consultation with WRD
25 shall add to the long-term reliable yield of the Basin. Innovations and improvements in
26 management practices that increase the conservation and maximization of the reasonable and
27 beneficial use of water should be promoted. To the extent that Parties to the Amended Judgment
28 in consultation with WRD implement a project that provides additional long-term reliable water

1 supply to the West Coast Basin, the annual extraction rights in the West Coast Basin will be
2 increased commensurately in an amount to be determined by the Storage Panel to reflect the
3 actual yield enhancement associated with the project. Augmented supplies of water resulting
4 from such a project may be extracted or stored as permitted in this Amended Judgment in the
5 same manner as other water.

6 B. Participation in any Water Augmentation Project shall be voluntary. The
7 terms of participation will be at the full discretion of the participating Parties. Parties who
8 propose a Water Augmentation Project (“Project Leads”) may do so in their absolute discretion,
9 upon such terms as they may determine and with Storage Panel approval. All other Parties will
10 be offered a reasonable opportunity to participate in any Water Augmentation Project on
11 condition that they share proportionately in generally common costs and benefits, and assume the
12 obligation to bear exclusively the cost of any improvements that are required to accommodate
13 their individual or peculiar needs.

14 C. Advance written notice shall be provided which reasonably describes the
15 potential project and the proposed terms under which a Party may “opt-in.” Parties shall be
16 afforded a reasonable time under the then prevailing circumstances for appropriate deliberation
17 and action by the Parties. Disputes as to the adequacy of the notice and the time for project
18 approval may be referred to the Storage Panel and then to the Court under its continuing
19 jurisdiction.

20 D. Parties may elect, in their discretion, to opt into a Water Augmentation
21 Project (“Project Participants”) so long as they agree to offer customary written and legally
22 binding assurances that they will bear their proportionate share of all costs attributable to the
23 Water Augmentation Project or provide other valuable consideration that is deemed sufficient by
24 the Project Leads and Project Participants.

25 E. All Water Augmentation Projects must be pre-approved by the Storage
26 Panel, as provided in Section V.12. The Storage Panel shall determine the amount of additional
27 groundwater extraction authorized as a result of a Water Augmentation Project, which
28 determination shall be based upon substantial evidence. The amount of additional groundwater

1 extraction shall not exceed the amount by which the Water Augmentation Project will increase
2 the long-term sustainable yield of the Basin. No extraction right shall be established and no
3 extraction shall occur until new water has been actually introduced into the Basin as a result of
4 the Water Augmentation Project. Any approval for a Water Augmentation Project shall include
5 provisions: (i) requiring regular monitoring to determine the actual amount of such new water
6 made available; (ii) requiring make up water or equivalent payment therefore to the extent that
7 actual water supply augmentation does not meet projections; and (iii) adjusting water rights
8 attributable to the Water Augmentation Project to match the actual water created. Any approval
9 for a Water Augmentation Project shall be based on a finding the Water Augmentation Project is
10 Technically Feasible and will not cause Material Physical Harm.

11 F. The right to extract augmented water from the Basin pursuant to a Water
12 Augmentation Project shall be accounted for separately and shall not be added to a Party's
13 Adjudicated Right.

14 G. A Party that elects to participate and pays its full pro-rata share of costs
15 associated with any Water Augmentation Project, and/or reaches an agreement with other
16 participants based upon other valuable consideration acceptable to the Lead Parties and the
17 remaining Project Participants, will receive a proportionate right to extract the water resulting
18 from the Water Augmentation Project.

19 H. A Party that does not elect to participate ("Non-Participating Party") will
20 not receive a right to extract water resulting from to the Water Augmentation Project. Non-
21 Participating Parties will not be required to pay any costs, fees or assessments of any kind
22 attributable to the respective Water Augmentation Project including the fees required hereunder
23 for the Watermaster duties or directly or indirectly as the WRD Replenishment Assessment.

24 I. Because water made available for Water Augmentation will be produced
25 annually, fluctuations in groundwater levels will be temporary, nominal, and managed within the
26 Basin Operating Reserve.

27 J. WRD shall not obtain any extraction right or other water right under the
28 Amended Judgment by virtue of its consultation in any Water Augmentation Project.

1 **12. Storage Procedure**

2 A. Storage Reporting and Monitoring

3 The Administrative Body (defined below) shall: (i) prescribe forms and procedures for the
4 orderly reporting of Stored Water and water from a Water Augmentation Project; (ii) maintain
5 records of all water stored in the Basin; (iii) undertake the monitoring and modeling of Storage
6 Projects, Water Augmentation Projects and New Storage Facilities required by this Judgment; and
7 (iv) provide an accounting of Stored Water and/or water from a Water Augmentation Project
8 within thirty (30) days of a written request by an Adjudicated Rights holder or a Party with rights
9 to Stored Water. For purposes of Sections V.12 and V.13 of this Amended Judgment, Water
10 Augmentation Project(s), New Storage Facilities and Storage Projects that require the approval of
11 the Storage Panel shall collectively be referred to as "Projects."

12 B. Application and Notification Procedure

13 (1) Nothing in this Amended Judgment shall alter a Party's duty to
14 comply with CEQA or any other applicable legal requirements as to any Project imposed by
15 applicable law. Further, no action or approval under this Amended Judgment shall constitute a
16 bar to a Party's duty to comply with CEQA or any other legal requirements as to any Project
17 imposed by applicable law. However, a Party to this Amended Judgment who is undertaking or
18 engaging in CEQA review for a Project that requires approval by the Storage Panel shall provide
19 to the Watermaster copies of the notices required under CEQA to be provided to the public within
20 the time periods proscribed by CEQA.

21 (2) For Projects that require review and approval by the Storage Panel,
22 as provided in Section V.13, the Administrative Body shall provide appropriate applications, and
23 shall work with Project applicant(s) to complete the application documents for presentation to the
24 Storage Panel.

25 (3) The Administrative Body shall conduct the groundwater modeling
26 necessary to support a Party's application for approval of a Project prior to the Storage Panel's
27 hearing on said Project. Upon receipt of a notice of a lead agency's intention to prepare a CEQA
28 Review Document, the Administrative Body shall conduct the modeling described in Section

1 V.12 of this Amended Judgment and submit such modeling to the lead agency for inclusion in the
2 proposed or draft CEQA documentation and the CEQA Review Document, subject to the Party's
3 payment of the costs of that modeling. Such modeling is not required to be conducted by the
4 Administrative Body if the Administrative Body and the Chair of the Water Rights Panel
5 determine in writing that (i) the likely rise in water levels from the proposed Project would be
6 minimal, (ii) other evidence (including any modeling prepared by the Project proponent)
7 demonstrates that the Project will not cause Material Physical Harm after consideration of the
8 factors outlined in Section V.13.B(3), and (iii) an Environmental Impact Report is not required
9 under CEQA. If the Administrative Body and the Chair of the Water Rights Panel make such a
10 determination, they shall promptly inform the entire Storage Panel. Such modeling shall
11 thereafter be conducted by the Administrative Body if either the Water Rights Panel or the Board
12 of Directors of WRD request that such modeling be conducted.

13 (4) The Party which is the proponent of a proposed Project shall bear
14 all costs associated with the Watermaster's preparation and review of the application for approval
15 of the Project and all costs associated with its implementation, including reimbursement of fees
16 and costs incurred by the Administrative Body in conducting the necessary modeling and other
17 technical studies.

18 (5) Within 30 days of receipt of an application for a Project or any
19 notification(s) associated with the CEQA review for such Project, the Administrative Body shall
20 provide written notice (either by electronic mail or U.S. postal mail) and access to a copy of the
21 Project application and/or any available CEQA documentation, including the CEQA Review
22 Document, to all Parties to the Amended Judgment. Any Party to the Amended Judgment shall
23 be entitled to submit its own report related to the Project, and the Administrative Body shall
24 consider such report in its processing of the Project application.

25 (6) As part of the application process, the Administrative Body shall
26 cause the preparation of any study or analysis necessary to determine that the Project is
27 Technically Feasible and will not cause Material Physical Harm, including the appropriate
28 modeling of the cumulative effect of the particular Project on water levels in the West Basin. The

1 Administrative Body may rely on CEQA documentation, including the CEQA Review Document,
2 for a Project for the information necessary to make a determination on Technical Feasibility and
3 Material Physical Harm and not prepare any additional analyses if the CEQA documentation
4 contains the necessary information for consideration of the Project including the groundwater
5 modeling required by this Amended Judgment.

6 C. Notice Process

7 Within thirty (30) days after submission of the final and complete Project application
8 documents (including the technical reports, CEQA Review Document and modeling results), the
9 Administrative Body shall provide notice (either by electronic mail or U.S. postal mail), and
10 access to copies of the final and complete application documents to all Parties to the Amended
11 Judgment.

12 13. Review/Approval Process

13 A. Projects Subject to Review

14 (1) Storage Projects exempt from the review and approval process
15 provided in this Section V.13 include:

- 16 • use of Total Adjudicated Production Rights, except for extraction above one hundred and
17 twenty percent (120%) of a Party's extraction right, as set out in Section IX.1;
18 • replenishment of the Basin with Replenishment Water by WRD;
19 • WRD's operations within the Basin Operating Reserve;
20 • Carryover Conversion; and
21 • Use of Existing Facilities to store water in the Individual Storage Allocation or the
22 Community Storage Pool.

23 (2) All other Projects shall be subject to review and approval, as
24 provided in this Section V.13, including, but not limited to, those projects involving:

- 25 • material variances to substantive criteria governing projects exempt from the review and
26 approval process;
27 • modifications to previously approved Projects and related agreements;
28

- 1 • a Party's proposal for Carryover Conversion in quantities greater than the express
- 2 apportionment of Adjudicated Storage Capacity on a non-priority, space-available, interim
- 3 basis, and
- 4 • any other means of storage not exempt by Section V.13.A(1).

5 B. Hearing and Approval Process for Watermaster Review

6 The following procedures shall be followed by the Watermaster where Storage Panel

7 review is required or permitted under this Amended Judgment.

8 (1) No later than thirty (30) days after notice has been issued in

9 accordance with Section V.12, the matter shall be set for hearing before the Storage Panel. A

10 staff report shall be submitted by the Administrative Body in conjunction with the completed

11 application documents, which report shall include proposed conditions of approval if the

12 recommendation in the staff report is to approve the Project. The Water Rights Panel may prepare

13 a separate independent staff report, if it elects to do so. Any Party to the Amended Judgment

14 shall be entitled to submit its own report, and such report shall be considered by the Storage Panel

15 as part of its review; however, a Party shall not be entitled to raise issues to the Storage Panel that

16 it failed to raise as part of any previously completed CEQA process for the Project under

17 consideration by the Storage Panel.

18 (2) Whenever feasible, the WRD Board of Directors and the Water

19 Rights Panel shall conduct a joint hearing (i.e., the presumption shall be in favor of joint

20 hearings). If a joint hearing is not held, the Water Rights Panel hearing shall be conducted in the

21 manner prescribed for public agency hearings under the Brown Act.

22 (3) Factors to be considered in reviewing a Project include (i) facilities

23 in the vicinity of the Project; (ii) proximity to drinking water wells and depths at which such wells

24 are screened; (iii) depth at which water will be added under the Project; (iv) resulting

25 groundwater elevations from the Project based on groundwater modeling conducted by the

26 Administrative Body and, if they elect to do so, the Project proponent, (v) existing contamination,

27 if any, in the vicinity of the Project; (vi) preferential groundwater pathways; (vii) the source of the

28 water for the Project; and (v) information provided by any Party.

1 (4) The WRD Board of Directors and the Water Rights Panel shall each
2 adopt written findings explaining their decision on the Project, although if both entities reach the
3 same decision, they shall work together to adopt a uniform set of findings. The findings must
4 include the evaluation of the factors identified in Section V.13.B(3) and a determination that the
5 Project is Technically Feasible and will not cause Material Physical Harm.

6 (5) The Storage Panel shall not be required to conduct a hearing on a
7 Project if it (i) reviews the CEQA Review Document adopted by a lead agency; (ii) the CEQA
8 Review Document includes the groundwater modeling required under this Amended Judgment;
9 (iii) determines that the CEQA Review Document evaluated the factors identified in Section
10 V.13.B(3); and (iv) determines that the CEQA Review Document demonstrates that the Project is
11 Technically Feasible and will not cause Material Physical Harm.

12 (6) Unless both the WRD Board of Directors and Water Rights Panel
13 approve the Project, the application shall be deemed denied (a "Project Denial"), provided,
14 however, that if either the WRD Board of Directors or the Water Rights Panel is unable to render
15 a decision on the application due to a conflict of interest arising under Section V.13 (A)(8) of this
16 Amended Judgment, then the application shall be deemed approved if the remaining body of the
17 Storage Panel approves the application. If both the WRD Board of Directors and Water Rights
18 Panel approve the Project, the Project shall be deemed approved (a "Project Approval").

19 (7) If the Storage Panel approves the Project, it may impose reasonable
20 conditions of approval on matters relevant to the Project, which shall include mandatory
21 conditions of approval including annual limits on the amount of Stored Water, annual extraction
22 limits of Stored Water, and water quality standards. The WRD Board of Directors and the Water
23 Rights Panel shall work together to adopt a uniform set of conditions of approval promulgated
24 after adoption of the Rules pursuant to Section X.1(E) and following the same review and
25 comment process set forth in Section XI.1(E).

26 (8) Neither WRD nor any member of the Water Rights Panel shall
27 render any decision on Projects subject to Watermaster review under Section V.13 of this
28 Amendment Judgment if said entity has a conflict of interest under applicable law or the rules and

1 regulations promulgated pursuant to Section XI.1(E) with respect to said Project.

2 (9) Any factual determinations made by the Watermaster, or any
3 constituent body thereof, pursuant to this section, shall be based on the substantial evidence test.

4 C. Trial Court Review

5 An applicant, Adjudicated Rights holder or a Party holding rights to Stored Water may
6 seek the Storage Panel's reconsideration of a Project Denial or Project Approval. However, there
7 shall be no process for mandatory reconsideration or mediation of a Project Approval or a Project
8 Denial either before the Administrative Body or the Water Rights Panel. Any Party may file an
9 appeal from a Project Approval or Project Denial with this Court, as further described in Section
10 XI.4.D. The Trial Court shall review the decisions of the Watermaster, Storage Panel and Water
11 Rights Panel in accordance with Section XI.4(D)

12 **14. Excess Production**

13 In order to meet possible emergencies, each of the Parties who is adjudged to have an
14 Adjudicated Right and not possessing Stored Water, is permitted to extract from the Basin in any
15 Administrative Year for beneficial use an amount in excess of each such Party's Total
16 Adjudicated Production Rights not to exceed two (2) acre-feet or ten percent (10%) of such
17 Party's Total Adjudicated Production Rights, whichever is the larger, and in addition thereto,
18 such greater amount as may be approved by the Court. Notwithstanding Section XI.4 herein, if
19 such greater amount is recommended by the Water Rights Panel, such order of Court may be
20 made *ex parte*. Each such Party so extracting water in excess of its Total Adjudicated Production
21 Rights shall be required to reduce its extractions below its Total Adjudicated Production Rights
22 by an equivalent amount in the Administrative Year next following. Such requirement shall be
23 subject to the proviso that in the event the Court determines that such reduction will impose upon
24 such a Party, or others relying for water service upon such Party, an unreasonable hardship, the
25 Court may grant an extension of time within which such Party may be required to reduce its
26 extractions by the amount of the excess theretofore extracted by such Party.

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4 **VI. PHYSICAL SOLUTION - EXCHANGE POOL**

5 As a further part of said physical solution herein imposed:

6 **1. Mandatory Offer to Exchange Pool**

7 Not less than sixty (60) days prior to the beginning of each Administrative Year, each
8 Party having supplemental water available to it through then existing facilities, other than water
9 which any such Party has the right to extract hereunder, shall file with the Water Rights Panel the
10 offer of such Party to release to the Exchange Pool the amount by which such Party's Adjudicated
11 Right exceeds one-half of the estimated total required use of water by such Party during the
12 ensuing Administrative Year, provided that the amount required to be so offered for release shall
13 not exceed the amount such Party can replace with supplemental water so available to it.

14 **2. Basis of Offer to Exchange Pool; Redetermination of Offer by Water Rights
15 Panel**

16 Such estimate of total required use and such mandatory offer shall be made in good faith
17 and shall state the basis on which the offer is made, and shall be subject to review and
18 redetermination by the Water Rights Panel, who may take into consideration the prior use by such
19 Party for earlier Administrative Years and all other factors indicating the amount of such total
20 required use and the availability of replacement water.

21 **3. Voluntary Offer to Exchange Pool**

22 Any Party filing an offer to release water under the mandatory provisions of this Section
23 VI may also file a voluntary offer to release any part or all of any remaining amount of water
24 which such Party has the right under this Amended Judgment to pump or otherwise extract from
25 the Basin, and any Party who is not required to file an offer to release water may file a voluntary
26 offer to release any part or all of the amount of water which such Party has the right under this
27 Amended Judgment to pump or otherwise extract from the basin. All such voluntary offers shall
28 be made not less than sixty (60) days prior to the beginning of each Administrative Year.

1 **4. Price of Water Offered to Exchange Pool**

2 Each offer to release water pursuant to this Section VI shall be the price per acre-foot
3 declared and determined at the time of the filing of such offer by the releasing Party; provided
4 that:

5 (a) such price per acre-foot shall not exceed the price that the releasing Party
6 would have to pay to obtain from others, in equal monthly amounts, through existing facilities, a
7 quantity of supplemental water equal in amount to that offered to be released; *or*

8 (b) if any such releasing Party has no existing facilities through which to
9 obtain water from others, such price shall not exceed the sum of the price per acre-foot charged
10 by MWD and West Coast Basin Municipal Water District to municipalities and public utilities for
11 water received from MWD.

12 **5. Price Dispute Objection - Water Rights Panel Determination**

13 A. In the event of a dispute as to any price at which water is offered for
14 release, any Party affected thereby may, within thirty (30) days thereafter, by an objection in
15 writing, refer the matter to the Water Rights Panel for determination. Within thirty (30) days after
16 such objection is filed, the Water Rights Panel shall consider said objection and shall make its
17 finding as to the price at which said water should be offered for release and notify all Parties.

18 B. The costs of such determination shall be apportioned or assessed by the
19 Water Rights Panel in its discretion between or to the Parties to such dispute, and the Water
20 Rights Panel shall have the power to require, at any time prior to making such determination, any
21 Party or Parties to such dispute to deposit with the Water Rights Panel funds sufficient to pay the
22 cost of such determination.

23 C. Any Party may appeal to the Court from a decision of the Water Rights
24 Panel as provided in Section XI.4. Pending the Court's determination if the water so offered has
25 been allocated, the Party making the offer shall be paid the price declared in its offer, subject to
26 appropriate adjustment upon final determination.

27 **6. Request for Water From Exchange Pool**

28 A. Not less than sixty (60) days prior to the beginning of each Administrative

1 Year, any Party whose estimated demand for water during the ensuing Administrative Year
2 exceeds the sum of all of the Party's supplies available to it from the Basin under this Amended
3 Judgment, may file with the Water Rights Panel a request for the release of water in the amount
4 that said estimated demand exceeds said available supply. Such request shall be made in good
5 faith and shall state the basis upon which the request is made, and shall be subject to review and
6 redetermination by the Water Rights Panel.

7 B. Within thirty (30) days thereafter, the Water Rights Panel shall advise, in
8 writing, those Parties requesting water of the estimated price thereof. Any Party desiring to
9 amend its request by reducing the amount requested may do so after the service of such notice.

10 C. Prior to the first day of each Administrative Year, the Water Rights Panel
11 shall determine if sufficient water has been offered to satisfy all requests. If it determines that
12 sufficient water has not been offered, it shall reduce such requests pro rata in the proportion that
13 each request bears to the total of all requests.

14 D. Not later than the first day of each Administrative Year, the Water Rights
15 Panel shall advise all Parties offering to release water of the quantities to be released by each and
16 accepted in the Exchange Pool and the price at which such water is offered. Simultaneously, it
17 shall advise all Parties requesting water of the quantities of released water allocated from the
18 Exchange Pool and to be taken by each requesting Party and the price to be paid therefore.

19 **7. Allocation of Exchange Pool Water by Water Rights Panel**

20 A. In allocating water which has been offered for release to the Exchange Pool
21 under Section VI.1, the Water Rights Panel shall first allocate that water required to be offered for
22 release and which is offered at the lowest price, and progressively thereafter at the next lowest
23 price or prices. If the aggregate quantity of water required to be released is less than the
24 aggregate quantity of all requests for the release of water made pursuant to Section VI.6, the
25 Water Rights Panel shall then allocate water voluntarily offered for release and which is offered
26 at the lowest price and progressively thereafter at the next lowest price or prices, provided that the
27 total allocation of water shall not exceed the aggregate of all such requests. Any water offered for
28 release under Section VI and not accepted in the Exchange Pool, and not allocated therefrom,

1 shall be deemed not to have been offered for release and may be extracted from the Basin by the
2 Party offering the same as if such offer had not been made.

3 B. Each Party requesting the release of water for its use and to whom released
4 water is allocated from the Exchange Pool may thereafter, subject to all of the provisions of this
5 Amended Judgment, extract such allocated amount of water from the Basin, in addition to the
6 amount such Party is otherwise entitled to extract hereunder during the Administrative Year for
7 which the allocation is made.

8 **8. Exchange Pool Water Pumped Before Pumper's Own Right**

9 From and after the first day of each Administrative Year, all water extracted from the
10 Basin by any Party requesting the release of water and to whom such water is allocated shall be
11 deemed to have been water so released until the full amount released for use by it shall have been
12 taken, and no such Party shall be deemed to have extracted from the Basin any water under its
13 own right so to do until said amount of released water shall have been extracted. Water extracted
14 from the Basin by Parties pursuant to their request for the release of water shall be deemed to
15 have been taken by the offerors of such water under their own rights to extract water from the
16 Basin.

17 **9. Price and Payment for Water Released for Exchange Pool**

18 A. All Parties allocated water under Section VI.6 shall pay a uniform price per
19 acre-foot for such water, which price shall be the weighted average of the prices at which all the
20 water allocated was offered for release.

21 B. Each Party shall pay to the Water Rights Panel, in five equal monthly
22 installments during the applicable Administrative Year, an amount equal to the quantity of water
23 allocated to it multiplied by said uniform price. The Water Rights Panel shall bill each such Party
24 monthly for each such installment, the first such billing to be made on or before the first day of
25 the second month of the Administrative Year involved, and payment therefore shall be made to
26 the Water Rights Panel within thirty (30) days after the service of each such statement. If such
27 payment be not made within said thirty (30) days such payment shall be delinquent and a penalty
28 shall be assessed thereon at the rate of one percent (1%) per month until paid. Such delinquent

1 payment, including penalty, may be enforced against any Party delinquent in payment by
2 execution or by suit commenced by the Water Rights Panel or by any Party hereto for the benefit
3 of the Water Rights Panel.

4 C. Promptly upon receipt of such payment, the Water Rights Panel shall make
5 payment for the water released and allocated, first, to the Party or Parties which offered such
6 water at the lowest price, and then through successive higher offered prices up to the total
7 allocated.

8 **VII. ADDITIONAL PUMPING ALLOWED UNDER AGREEMENT WITH WRD**
9 **DURING PERIODS OF EMERGENCY**

10 A. WRD overlies the West Coast Basin and engages in activities of
11 replenishing the groundwaters thereof with Replenishment Water. During an actual or threatened
12 temporary shortage of the Imported Water supply to West Coast Basin, WRD may, by resolution,
13 determine to subsequently replenish the Basin for any water produced in excess of a Party's
14 Adjudicated Rights hereunder, within a reasonable period of time, pursuant to Over-Production
15 Agreements with such Parties. Such Over-Production Agreements shall not exceed in the
16 aggregate ten thousand (10,000) acre-fee (the "Initial Cumulative Over-Production Cap"). WRD
17 may determine that a quantity of water is available for such agreements that exceed the Initial
18 Cumulative Over-Production Cap (the "Supplemental Over-Production Water") based on a
19 determination made after a public hearing and taking into account the water levels in the Basin
20 and the availability of water to replenish the Basin other than Imported Water. Over-Production
21 Agreements for Supplemental Over-Production Water shall be made available on an equal basis
22 to all Parties with an Adjudicated Right who (i) possess no Carryover or Stored Water, (ii) have
23 purchased Imported Water in the immediately preceding Administrative Year or will receive less
24 water from a Water Purveyor due to the declared drought curtailing that Water Purveyor's
25 available supplies, (iii) have exercised or contractually agreed to not exercise its rights under
26 Section V.14 of this Amended Judgment, and (iv) provide important goods and services to the
27 general public, provided, however, that WRD shall give priority to Parties meeting those criteria
28 who have not entered into an Over-Production Agreement for an portion of the Initial Cumulative

1 Over-Production Cap. Over-Production Agreements for Supplemental Over-Production Water
2 shall be on the same terms as required under Sections VII.D and E.

3 B. Notwithstanding any other provision of this Amended Judgment, any Party
4 with Adjudicated Rights who is (i) Water Purveyors, (ii) possess no Carryover or Stored Water,
5 and (iii) have exercised or contractually agreed to not exercise its rights under Section V.14 of
6 this Amended Judgment, is authorized to enter into agreements with WRD under which such
7 Water Purveyors may exceed their Adjudicated Rights for a particular Administrative Year (an
8 “Over-Production Agreement”) when the following conditions are met:

9 (1) WRD is in receipt of a resolution of the Board of Directors of
10 MWD stating there is an actual or immediately threatened temporary shortage of MWD’s
11 Imported Water supply compared to MWD’s needs, or a temporary inability to deliver MWD’s
12 Imported Water supply throughout its service area, which will be alleviated in part by over-
13 pumping from West Coast Basin.

14 (2) The Board of Directors of both WRD and the Water Rights Panel,
15 by resolutions, concur in the resolution of MWD’s Board of Directors and each determine that the
16 temporary overproduction in West Coast Basin will not adversely affect the integrity of the Basin
17 or the sea water barrier maintained along the coast of the West Coast Basin. In said resolution,
18 WRD’s Board of Directors shall set a public hearing, and notice the time, place and date thereof
19 (which may be continued from time to time without further notice) and which said notice shall be
20 given by First Class Mail to all Parties. Said notice shall be mailed at least ten (10) days before
21 said scheduled hearing date. At said public hearing, Parties shall be given full opportunity to be
22 heard, and at the conclusion thereof the Board of Directors of WRD by resolution (a “Drought
23 Resolution”) decides to proceed with agreements under this Section VII.

24 C. If WRD has not entered into Over-Production Agreements with Water
25 Purveyors for the entirety of the Initial Cumulative Over-Production Cap within thirty (30) days
26 after the Drought Resolution, then WRD may enter into Over-Production Agreements with other
27 Parties to this Judgment, although the amount of said Agreements shall not cause an exceedance
28 of the Initial Cumulative Over-Production Cap. In considering such Agreements with other

1 Parties, WRD shall accord priority to Parties who provide important goods and services to the
2 general public.

3 D. All Over-Production Agreements with WRD shall be subject to the
4 following requirements, and such reasonable others as WRD's Board of Directors shall require:

5 (1) The Over-Production Agreements shall be of uniform content
6 except as to the quantity involved, and any special provisions considered necessary or desirable
7 with respect to local hydrological conditions or good hydrologic practice.

8 (2) The Over-Production Agreements shall be offered to Water
9 Purveyors and Parties, excepting those which WRD's Board of Directors determine should not
10 over-pump because such over-pumping would occur in undesirable proximity to a sea water
11 barrier project designed to forestall sea water intrusion, or within, or in undesirable proximity to,
12 an area within West Coast Basin wherein groundwater levels are at an elevation where over-
13 pumping is, under all the circumstances, undesirable.

14 (3) The maximum term of any such Over-Production Agreement shall
15 be four (4) months. All such Over-Production Agreements shall commence and end on the same
16 day (and which may be executed at any time within said four month period), unless an extension
17 thereof is authorized by the Court under this Amended Judgment.

18 (4) The Over-Production Agreements shall contain provisions that the
19 Water Purveyor or Party executing the agreement pay to WRD a price, in addition to the
20 applicable Replenishment Assessment, determined on the following formula: The price per acre-
21 foot of West Basin Municipal Water District's treated domestic and municipal water for the
22 Administrative Year in which the agreement is to run, less the total of: (a) an amount per acre-
23 foot as an allowance on account of incremental cost of pumping, as determined by WRD's Board
24 of Directors; and (b) the rate of the replenishment assessment of WRD for the same
25 Administrative Year. If the term of the Over-Production Agreement is for a period which will be
26 partially in one Administrative Year and partially in another, and a change in either or both the
27 price per acre-foot of West Basin Municipal Water District's treated domestic and municipal
28 water and rate of the replenishment assessment of WRD is scheduled, the price formula shall be

1 determined by averaging the scheduled changes with the price and rate then in effect, based on
2 the number of months each will be in effect during the term of the Over-Production Agreement.
3 Any price for a partial acre-foot shall be computed pro rata. Payments shall be due and payable
4 on the principle that over-extractions under the Over-Production Agreement are the last water
5 pumped in the Administrative Year, and shall be payable as the Over-Production Agreement shall
6 provide.

7 (5) The Over-Production Agreements shall contain provisions that: (a)
8 All of such agreements (but not less than all) shall be subject to termination by WRD if, in the
9 judgment of WRD's Board of Directors, the conditions or threatened conditions upon which they
10 were based have abated to the extent over-extractions are no longer considered necessary; and (b)
11 that any individual agreement or agreements may be terminated if the WRD's Board of Directors
12 finds that Material Physical Harm has developed as a result of over-extractions by any Water
13 Purveyor or Party which have executed said Over-Production Agreements, or for any other reason
14 that WRD's Board of Directors find good and sufficient.

15 E. Other matters applicable to such Over-Production Agreements and over-
16 pumping thereunder are as follows, and to the extent they would affect obligations of the WRD
17 they shall be anticipated in said Over-Production Agreements:

18 (1) The quantity of over-pumping permitted shall be additional to that
19 which the Water Purveyor or Party could otherwise over-pump under this Amended Judgment.

20 (2) The total quantity of permitted over-pumping under all said
21 agreements during said four months shall not exceed ten thousand (10,000) acre-feet, but the
22 individual Water Purveyor or Party shall not be responsible or affected by any violation of this
23 requirement. That total is additional to over-extractions otherwise permitted under this Amended
24 Judgment.

25 (3) Only one four-month period may be utilized by WRD in entering
26 into such Over-Production Agreements, as to any one emergency or continuation thereof declared
27 by MWD's Board of Directors under Section VII.B(2) hereof.

28 (4) If any Party claims that it is being damaged or threatened with

1 damage by the over-extractions by any Party to such an Over-Production Agreement, the Water
2 Rights Panel or any Party hereto may seek appropriate action of the Court for termination of any
3 such Over-Production Agreement upon notice of hearing served on all Parties. Any such
4 termination shall not affect the obligation of the Party having entered into an Over-Production
5 Agreement pursuant to this Section to make payments under the Over-Production Agreement for
6 over-extractions which previously occurred thereunder.

7 (5) WRD shall maintain separate accounting and a separate fund of the
8 proceeds from payments made pursuant to agreements entered into under this Section. Said fund
9 shall be utilized solely for purposes of replenishment and the replacement of waters in West Coast
10 Basin. WRD shall, as soon as practicable, cause replenishment in West Coast Basin by the
11 amounts to be over-extracted pursuant to this Section, whether through spreading, injection, or in-
12 lieu agreements.

13 (6) Over-extractions made pursuant to the said Over-Production
14 Agreements shall not be subject to the "make up" provisions provided in Section V.14, provided,
15 that if any Party fails to make payments as required by the Over-Production Agreement, Water
16 Rights Panel may require such "make up" under Section V.14.

17 (7) The Water Purveyor or Party under any such Over-Production
18 Agreement may, and is encouraged to, enter into appropriate arrangements with customers who
19 have Adjudicated Rights in West Coast Basin under or pursuant to this Amended Judgment,
20 whereby the Water Purveyor or Party will be assisted in meeting the objectives of the agreement.

21 (8) Nothing in this Section VII limits the exercise of the reserved and
22 continuing jurisdiction of the court as provided in Sections XII and XIII hereof.

23 **VIII. INJUNCTION**

24 Upon entry of this Amended Judgment, each of the Parties hereto, their successors and
25 assigns, and each of their agents, employees, attorneys, and any and all persons acting by,
26 through, or under them or any of them, are and each of them is hereby perpetually enjoined and
27 restrained from pumping or otherwise extracting from the Basin any water in excess of said
28 Party's Adjudicated Rights, except as otherwise provided in this Amended Judgment. Consistent

1 with the Order Amending Judgment to Provide Exclusion Zone, dated December 21, 1995, no
2 person shall construct, operate or maintain a well for the production of groundwater within 2,000
3 feet of any seawater barrier injection well operated in connection with the West Coast Basin
4 Seawater Barrier Project.

5 **IX. LIMITATIONS UPON EXTRACTION; ORDER OF PRODUCTION**

6 **1. Limits on Extractions**

7 The total extraction right for an Administrative Year includes a Party's Total Adjudicated
8 Production Right (to the extent not transferred by agreement or otherwise), and any right to
9 extract Stored Water or Carryover as provided in this Amended Judgment. Any Party who has
10 Carryover and/or Stored Water in the aggregate amount equal to or exceeding twenty percent
11 (20%) of the Party's Total Adjudicated Production Right shall be allowed to extract, in any one
12 Administrative Year, up to one-hundred and twenty percent (120%) of the Party's Total
13 Adjudicated Production Right, except upon prior approval by the Storage Panel, as provided
14 herein. Upon application, the Storage Panel shall approve a Party's request to extract water in
15 excess of one hundred and twenty percent (120%) of such limitation consistent with Section
16 V.13.B. Requests to extract water in excess of one hundred and twenty percent (120%) of a
17 Party's Total Adjudicated Production Right shall be reviewed and either approved or denied by
18 the Storage Panel in accordance with the procedure set forth in Section V.13 of this Amended
19 Judgment.

20 **2. Prioritization of Production**

21 Except as provided in Section V.6.D, unless a Party elects otherwise, production of water
22 from the Basin for the use or benefit of the Parties hereto shall be credited to each such Party in
23 the following order: (i) Exchange Pool production; (ii) production of Carryover Water (but
24 excluding the Carryover Water described in Section V.4.C, (iii) production of water pursuant to a
25 lease or other agreement of an Adjudicated Right; (iv) production of water pursuant to that
26 Party's Adjudicated Right; (v) production of Stored Water; (vi) the production of the Carryover
27 Water described in Section V.4.C; and (vi) emergency production pursuant to an Over-Production
28 Agreement with WRD pursuant to Section VII.

1 **X. LOSS OF DECREEED RIGHTS**

2 A. It is in the best interests of the Parties herein and the reasonable beneficial
3 use of the Basin and its water supply that no Party be encouraged to take and use more water than
4 is actually required. Failure to produce all of the water to which a Party is entitled hereunder shall
5 not, in and of itself, be deemed or constitute an abandonment of such Party's right in whole or in
6 part.

7 B. No taking of water under Sections III, V, VI and VII hereof, by any Party
8 to this action shall constitute a taking adverse to any other Party; nor shall any Party to this action
9 have the right to plead the statute of limitations or an estoppel against any other Party by reason
10 of its said extracting of water from the Basin pursuant to a request for the release of water; nor
11 shall such release of water to the Exchange Pool by any Party constitute a forfeiture or
12 abandonment by such Party of any part of its Adjudicated Right to water; nor shall such release in
13 anywise constitute a waiver of such right although such water, when released under the terms of
14 this Amended Judgment may be devoted to a public use; nor shall such release of water by any
15 such Party in anywise obligate any Party so releasing to continue to release or furnish water to
16 any other Party or its successor in interest, or to the public generally, or to any Party thereof,
17 otherwise than as provided herein.

18 **XI. WATERMASTER**

19 **1. Appointment**

20 A. The constituent bodies specified below are, jointly, hereby appointed
21 Watermaster to administer this Amended Judgment, for an indefinite term, but subject to removal
22 by the Court. Collectively such bodies, which together shall constitute the "Watermaster," shall
23 have restricted powers, duties and responsibilities as specified herein, it being the Court's
24 intention that particular constituent bodies of the Watermaster have only limited and specified
25 powers over certain aspects of the administration of this Amended Judgment.

26 B. The Outgoing Watermaster has agreed to exercise reasonable diligence in
27 the complete transition of Watermaster duties and responsibilities within a reasonable time
28 following entry of this order, and to make available to the new Watermaster all records

1 concerning Watermaster activities.

2 C. Watermaster, and each of its constituent bodies, as designated below, exist
3 as a special master pursuant to this Amended Judgment and serve at the pleasure of the Court.
4 Nothing herein shall be construed as creating an independent designation of "Watermaster" as a
5 public agency subject to the provisions of CEQA.

6 D. Chair of the Water Rights Panel (defined below) shall represent the
7 Watermaster before the Court subject to the provisions of Sections XI.2(B)(1) of this Amended
8 Judgment.

9 E. The Administrative Body and the Water Rights Panel, acting jointly as the
10 Watermaster, shall adopt Watermaster Rules that are reasonably necessary to carry out this
11 Amended Judgment and are consistent with this Amended Judgment. Said Rules shall also
12 include provisions for the appropriate application of existing laws to actions by the Watermaster
13 concerning conflicts of interests; limiting gifts and monies to individuals holding a position on or
14 in any constituent body of Watermaster; hiring outside contractors and consultants; and use of
15 fees and assessments paid to the Watermaster authorized under this Amended Judgment. Within
16 ninety (90) days after entry of this Amended Judgment, the Watermaster shall issue draft
17 Watermaster Rules. The Watermaster Rules and any subsequent amendments shall be subject to
18 a 30 day review and comment period by the Adjudicated Rights holders. The Watermaster is
19 required to respond to all comments received during the 30 day review and comment period
20 within a reasonable amount of time. Thereafter, the Watermaster is required to hold a hearing on
21 the final Watermaster Rules or any amendments before submittal to the Court for review. The
22 Watermaster Rules, and any subsequent amendments thereto, shall be presented to the Court for
23 review and approval upon a noticed motion in the manner set forth in Section XI.4.D herein.

24 **2. Watermaster Constituents**

25 **A. Administrative Body**

26 WRD is appointed the Administrative Body of the West Coast Basin Watermaster
27 ("Administrative Body"). In order to assist the Court in the administration and enforcement of
28 the provisions of this Amended Judgment and to keep the Court fully advised, the Administrative

1 Body shall have the following duties, powers and responsibilities in addition to those before or
2 hereafter provided in this Judgment.

3 (1) *Require Reports, Information and Records*

4 In consultation with the Water Rights Panel, the Administrative Body shall require the
5 Parties to furnish such reports, information and records as may be reasonably necessary to
6 determine compliance or lack of compliance by any Party with the provisions of this Amended
7 Judgment. The Administrative Body shall collect and assemble the records and other data
8 required of the Parties hereto, and evaluate such records and other data as part of its duties herein.
9 The Water Rights Panel shall make its records available to the Administrative Body for record-
10 keeping. The Administrative Body shall maintain copies of all records prepared or received by
11 each body of the Watermaster consistent with the Watermaster Rules. Subject to compliance with
12 all applicable laws protecting the disclosure of a party's confidential or proprietary information,
13 the Administrative Body shall allow any Party or its representative to inspect and copy the
14 Watermaster's records and other data during normal business hours and in accordance with the
15 rules and regulations promulgated by the Watermaster hereafter.

16 (2) *Notices by Watermaster*

17 The Administrative Body shall provide notice to all Parties of all material actions or
18 determinations by the Watermaster or any constituent body thereof, which shall be defined or
19 delineated in the Watermaster Rules, and as otherwise provided by this Amended Judgment. The
20 Administrative Body shall set a regular meeting day per month where it can hold a meeting and is
21 required to post the agenda and give notice per the Watermaster Rules. The Watermaster Rules
22 shall identify the days of the month on which the Storage Panel shall hold noticed meetings when
23 a meeting is necessary. If notice is required to be given per email, then the timing for the notice is
24 5 business days. If the notice is required to be given per U.S. mail, then the timing for the notice
25 is 10 business days. No action or determination of the Watermaster or the constituent bodies
26 thereof shall be valid unless the notice requirements are satisfied.

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(3) *Annual Groundwater Monitoring*

The Administrative Body shall undertake at least one annual groundwater modeling event to evaluate the current condition of the Basin and determine that cumulatively, all Existing Facilities and New Storage Facilities do not pose actual or an imminent threat of Material Physical Harm. Said groundwater modeling shall incorporate the results of modeling conducted by the Administrative Body in accordance with Section V.12 of this Amended Judgment for the Storage Panel's review. The Administrative Body shall provide the Parties notice of and access to the results of the annual groundwater modeling, which notice may be by delivery of the Watermaster's annual report.

(4) *Annual Report*

On or before October 15 of every year, the Administrative Body shall prepare and deliver an annual report for the consideration of the Water Rights Panel. On or before December 15 of every year, the Watermaster shall report to the Court on the Basin and, for that purpose, may adopt the report of the Administrative Body, or separately may make its own report. Each annual report to the Court shall include, but not be limited to, the following:

- All water extractions in the Basin, including that by producers who have no Adjudicated Right;
- Storage accounts maintained by each Party, including Carryover Conversion;
- Proposed and ongoing Water Augmentation Projects;
- Proposed and ongoing Storage Projects;
- Proposed and constructed New Storage Facilities;
- The results of groundwater modeling conducted by the Administrative Body consistent with Section V.12 of this Amended Judgment during the preceding year, which modeling shall include modeling necessary to assess the cumulative effect on water levels in the Basin;
- Exchange Pool operation;
- Use of Developed Water, including Imported Water;
- Violations of the Amended Judgment and corrective action taken by the bodies of the Watermaster having jurisdiction as provided in this Amended Judgment;

- 1 • Change of ownership of Adjudicated Rights;
- 2 • Watermaster administration costs;
- 3 • Water spread or injected into the Basin, including water injected for seawater intrusion
- 4 barriers;
- 5 • Development of Material Physical Harm, or imminent threat of the development of Material
- 6 Physical Harm; and
- 7 • Recommendations, if any.

8 (5) *Carryover Conversion Payment*

9 All payments of the Replenishment Assessment received by WRD
10 from a Party converting Carryover to Stored Water shall be maintained and accounted for by
11 WRD separate from any other funds held by WRD, either in its capacity as the Administrative
12 Body or in its statutory capacity under the WRD Act. WRD shall use said Replenishment
13 Assessments solely for the purpose of securing Replenishment Water for causing replenishment
14 of the West Basin. WRD shall provide an accounting of the monies received, how spent, and, if
15 not spent within an Administrative Year, the total amount maintained by WRD and the reason for
16 not utilizing the funds for that Administrative Year.

17 (6) *Annual Budget and Appeal Procedure in Relation Thereto*

18 (a) At all times, the Administrative Body shall maintain a
19 separation in accounting between the expense for performing the administrative functions
20 specified in this Amended Judgment (the "Administrative Budget") and WRD's Replenishment
21 Assessment and operating budget. By April 1 of each Administrative Year, the Administrative
22 Body shall prepare a tentative Administrative Budget for the subsequent year. The Administrative
23 Body shall mail a copy of said tentative Administrative Budget to each of the Parties at least sixty
24 (60) days before the beginning of each Administrative Year. For the first Administrative Year of
25 operation under this Amended Judgment, if the Administrative Body is unable to meet the above
26 time requirement, the Administrative Body shall mail said copies as soon as possible. The
27 Administrative Budget mailed to the Parties shall provide sufficient detail in the Administrative
28 Budget to demonstrate a separation in accounting between the Administrative Budget and WRD's

1 Replenishment Assessment and operating budget.

2 (b) The first year that the Administrative Budget is prepared by
3 the Administrative Body pursuant to this Amended Judgment, the amount of that budget shall not
4 exceed an amount equal to fifty percent (50%) of the 2013-2014 charge for Watermaster service
5 for the West Coast Basin collected from Parties by the Outgoing Watermaster (the "Base Budget
6 Amount"). All increases in future budgets for the Administrative Body above the amount set forth
7 above shall be subject to approval by the Water Rights Panel following a public meeting to be
8 held prior to the beginning of the Administrative Year, provided that the approved budget shall
9 not be less than the amount of the first-year budget for the Administrative Body, except upon
10 further order of the Court. Any administrative function by WRD already paid for by the
11 Replenishment Assessment shall not be added as an expense in the Administrative Budget. Any
12 expense or cost attributable to performing the duties of the Administrative Body imposed by this
13 Amended Judgment shall not be added to WRD's operating budget, or otherwise added to the
14 calculation of the Replenishment Assessment. WRD, operating under the WRD Act,
15 acknowledges that it has been preparing and maintaining financial statements and budgets in
16 accordance with generally accepted accounting principles for state and local governments
17 (GAAP) and conducting audits in accordance with generally accepted government auditing
18 standards (GAGAS). In order to fulfill those budget and accounting provisions of the Amended
19 Judgment relating to WRD acting in its statutory capacity, WRD agrees, acting under the WRD
20 Act, to (i) continue its practice of preparing and maintaining financial statements and budgets in
21 accordance with GAAP and conducting audits in accordance with GAGAS and (ii) certify, each
22 year after an audit is completed within three (3) months after end of the Administrative Year, that
23 no expense in WRD's operating budget or its Replenishment Assessment was charged or assessed
24 contrary to the express provisions of Sections XI.2A5, 6 and 7 of the Amended Judgment. While
25 WRD may approve the proposed Administrative Budget at the same meeting in which WRD
26 adopts its annual Replenishment Assessment or annual budget, the Administrative Body's budget
27 shall be separate and distinct from the Replenishment Assessment imposed pursuant to Water
28 Code § 60317 and WRD's operating budget. If approval by the Water Rights Panel is required

1 pursuant to the foregoing, the Water Rights Panel shall act upon the proposed budget within 15
2 calendar days after the public meeting. If the Water Rights Panel does not approve the budget
3 prior to such deadline, the matter may be appealed to the Court within sixty (60) days.

4 (c) If any Party has any objection to the Administrative Budget,
5 it shall present the same in writing to the Watermaster within fifteen (15) days after the date of
6 mailing of said tentative budget by the Administrative Body. The Parties shall make the
7 payments otherwise required of them to the Administrative Body even though an appeal of such
8 budget may be pending. Upon any revision by the Court, the Administrative Body shall either
9 remit to the Parties their pro rata portions of any reduction in the budget, or shall credit their
10 accounts with respect to their budget assessments for the next ensuing Administrative Year, as the
11 Court shall direct.

12 (d) The Administrative Body shall prepare and maintain
13 financial statements and budgets in accordance with generally accepted accounting principles
14 (GAAP) for state and local governments in order to meet this requirement. Audits will be
15 conducted in accordance with generally accepted government auditing standards (GAGAS). The
16 Administrative Body shall, each year after an audit is completed, certify within three (3) months
17 after end of the Administrative Year that no expense was part of the budget or paid for by the
18 budget contrary to the Amended Judgment.

19 (7) *Administrative Budget as Parties' Costs*

20 (a) The amount of the Administrative Budget to be assessed to
21 each Party shall be determined as follows: If that portion of the final Administrative Budget to be
22 assessed to the Parties holding an Adjudicated Right is equal to or less than twenty dollars
23 (\$20.00) per said Party then the cost shall be equally apportioned among said Parties. If that
24 portion of the final Administrative Budget to be assessed to said Parties is greater than twenty
25 dollars (\$20.00) per said Party then each Party holding an Adjudicated Right shall be assessed a
26 minimum of twenty dollars (\$20.00), the amount of revenue expected to be received through the
27 foregoing minimum assessments shall be deducted from that portion of the final Administrative
28 Budget to be assessed to the Parties holding an Adjudicated Rights and the balance shall be

1 assessed to the Parties having Adjudicated Rights, such balance being divided among them
2 proportionately in accordance with their respective Adjudicated Rights. As a condition of
3 approving a Regional Storage Project or a Water Augmentation Project, the Storage Panel shall
4 require any Party participating in such a Project who does not hold an Adjudicated Right to pay a
5 portion of the Administrative Body's budget consistent with the amount of water that can be
6 stored by the Regional Storage Project relative to the total amount of Adjudicated Rights.

7 (b) Payment of the assessment provided for herein, subject to
8 adjustment by the Court as provided, shall be made by each such Party prior to beginning of the
9 Administrative Year to which the assessment relates, or within forty (40) days after the mailing of
10 the tentative Administrative Budget, whichever is later. If such payment by any Party is not made
11 on or before said date, the Administrative Body shall add a penalty of five percent (5%) thereof to
12 such Party's statement. Payment required of any Party hereunder may be enforced by execution
13 issued out of the Court, or as may be provided by order hereinafter made by the Court, or by other
14 proceedings by the Watermaster or by any Party hereto on the Watermaster's behalf.

15 (c) All such payments and penalties received by the
16 Administrative Body shall be expended by it for the administration of this Amended Judgment.
17 Any money remaining at the end of any Administrative Year shall be available for such use in the
18 following Administrative Year. The Administrative Body shall maintain no reserves.

19 (8) *Concerns About Material Physical Harm*

20 Any Party shall raise concerns regarding actual or an imminent threat of Material Physical
21 Harm to the Administrative Body or the Storage Panel prior to filing a motion with the Court
22 unless the Party reasonably believes that irreparable harm to the Basin or itself is imminent if the
23 Court does not order provisional relief. If reasonable concerns are raised to the Administrative
24 Body, it shall promptly consider any such concerns including undertaking any investigation,
25 modeling or other technical analysis necessary to address the concern. The Administrative Body
26 shall provide written notice of its determination, and copy of its report, to all Parties by either
27 electronic mail or U.S. postal mail. If a Party disagrees with the Administrative Body's
28 conclusion, the Party may request a hearing before the Storage Panel. Any hearing before the

1 Storage Panel shall proceed as outlined in Section V.13.B. Any decision of the Storage Panel
2 shall be reviewable by the Court in accordance with Section XI.4.

3 (9) *Other Administrative Body Duties*

4 The Administrative Body shall perform such other duties as directed by the Court and the
5 Watermaster Rules.

6 B. The Water Rights Panel

7 The Water Rights Panel shall consist of five (5) members from among representatives of
8 the Parties holding Adjudicated Rights under this Amended Judgment. Three (3) of the members
9 shall be the elected officers of president, vice-president and treasurer of the West Basin Water
10 Association and the remaining two (2) members shall be selected by the Board of Directors of the
11 West Basin Water Association. At least one (1) member of the Water Rights Panel shall be a
12 non-Water Purveyor Adjudicated Rights holder possessing at least 1% of the Adjudicated Rights
13 in the Basin. Members of the Water Rights Panel shall serve without compensation. The Water
14 Rights Panel shall take action by majority of its members. The Water Rights Panel shall have the
15 following duties and responsibilities:

16 (1) *Judicial Action Concerning Adjudicated Rights and Stored Water*

17 As among the other bodies of the Watermaster, the Water Rights Panel shall (i) have
18 exclusive authority to move the Court to take such action as may be necessary to enforce the
19 terms of the Amended Judgment, including but not limited to matters involving the extraction
20 and maintenance of Adjudicated Rights, provided, however, that in matters involving Stored
21 Water, the Water Rights Panel and the WRD Board of Directors must concur in the decision to
22 take judicial action, in which case the Chair of the Water Rights Panel shall represent the Storage
23 Panel in such action. If the WRD Board of Directors does not concur in taking judicial action, any
24 Party may file a motion with the Court concerning the matter in their status as Parties to the
25 Judgment if permitted by Section XIII of this Amended Judgment. No Party to the Amended
26 Judgment waives any rights to seek relief or review of the decisions of the Watermaster or any
27 body thereof. The Water Rights Panel's retention of legal counsel shall comply with the
28 Watermaster Rules.

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(2) *Requirement of Measuring Devices*

The Water Rights Panel shall require all parties owning or operating any facilities for the extraction of groundwater from West Basin to install and maintain at all times in good working order at such party's own expense, appropriate measuring devices at such times and as often as may be reasonable under the circumstances and to calibrate or test such devices.

(3) *Inspections by Watermaster*

Subject to compliance with all applicable laws protecting the disclosure of a party's confidential or proprietary information, the Water Rights Panel may make inspections of groundwater production facilities, including aquifer storage and recovery facilities, and measuring devices at such times and as often as may be reasonable under the circumstances and to calibrate or test such devices.

(4) *Reports*

The Water Rights Panel shall be responsible for reporting to the Court concerning Adjudicated Rights in the Basin, including any and all of the following:

- Groundwater extractions;
- Exchange Pool operation;
- Violations of this Amended Judgment and corrective action taken or sought;
- Change of ownership of an Adjudicated Right;
- Assessments made by the Water Rights Panel and any costs incurred;
- Development of Material Physical Harm, or imminent threat of the development of Material Physical Harm; and
- Recommendations, if any.

(5) *Assessment*

The Water Rights Panel shall assess holders of Adjudicated Rights within the West Coast Basin an annual amount not to exceed one dollar (\$1.00) per acre-foot of Adjudicated Rights, by majority vote of the members of the Water Rights Panel. The Water Rights Panel may assess a higher amount, subject to being overruled by Majority Protest. If an assessment is assessed in excess of one dollar (\$1.00) per acre-foot, the assessment shall only be applied for that

1 Administrative Year. The assessment is intended to cover any costs associated with any
2 Amended Judgment enforcement action, the reporting to the Court pursuant to Section XI.2.B(1),
3 and the review of Storage Projects as a component of the Storage Panel, as provided herein. It is
4 anticipated that this body will rely on the Administrative Body's staff for most functions, but the
5 Water Rights Panel may engage its own staff if required in its reasonable judgment and in
6 accordance with the Watermaster Rules. The Water Rights Panel shall prepare and maintain
7 financial statements and budgets in accordance with generally accepted accounting principles
8 (GAAP) for state and local governments in order to meet this requirement. Every other year, the
9 Water Rights Panel shall cause a Review of its Financial Statements by a certified public
10 accountant. The Water Rights Panel shall, each year after a review is completed, certify within
11 three (3) months after end of the Administrative Year that no expense was part of the budget or
12 paid for by the budget contrary to the Amended Judgment. As a condition of approving a
13 Regional Storage Project or a Water Augmentation Project, the Storage Panel will require any
14 Party participating in such a Project who does not hold an Adjudicated Right to pay a reasonable
15 portion of the Water Rights Panel's budget consistent with the amount of water that can be stored
16 by the Regional Storage Project relative to the total amount of Adjudicated Rights.

17 (6) *Notices*

18 The Water Rights Panel shall, to the extent practical, hold regular meetings on a quarterly
19 basis or more often as needed. Notices of meetings of the Water Rights Panel shall be provided
20 as required under Section XI.2.A(2).

21 C. The Storage Panel

22 The Storage Panel of the Watermaster shall be a bicameral body consisting of (i) the West
23 Coast Basin Water Rights Panel and (ii) the Board of Directors of WRD. Action by the Storage
24 Panel shall require separate action by each of its constituent bodies provided, however, that action
25 can be taken by each constituent body at a joint hearing. The Storage Panel shall have the duties
26 and responsibilities specified with regard to the provisions for the storage and extraction of Stored
27 Water as set forth in Section V and elsewhere within this Amended Judgment.

28

1 D. Capacity As Court-Appointed Watermaster

2 In performing any duty not required by any other law or regulation, specifically set forth
3 within this Amended Judgment and in conformance with all requirements for said duty therein for
4 the Administrative Body, the Water Rights Panel or the Storage Panel then those bodies shall be
5 deemed to act solely as the Court's appointed Watermaster and not in any other capacity.

6 3. **Limitations on Powers and Duties of the Watermaster and its Constituent**
7 **Bodies**

8 A. Use of Facilities and Data Collected by Other Governmental Agencies

9 Where practicable, the three bodies constituting the Watermaster should not duplicate the
10 collection of data relative to conditions of the West Coast Basin which is then being collected by
11 one or more governmental agencies, but where necessary each constituent body of the
12 Watermaster may collect supplemental data. Where it appears more economical to do so, the
13 Watermaster and its constituent bodies are directed to use such facilities of other governmental
14 agencies as are available to it at either no cost or cost agreements with respect to the data
15 collection, receipt of reports, billings to Parties, mailings to Parties, and similar matters.

16 B. Limitations on WRD's Leasing Authority

17 WRD shall not engage in a lease of Adjudicated Rights, Stored Water or any other water
18 within the Basin to or from any Party or third party, provided, however, that the foregoing
19 prohibition shall (i) not apply during any emergency declared pursuant to Section VII of this
20 Judgment, (ii) not be interpreted to restrict WRD's ability or authority to lease in water from any
21 source or entity for purposes of replenishment of the Basin or for water quality activities, and (iii)
22 not apply to any reclaimed, recycled or remediated water that may be developed by WRD
23 pursuant to its replenishment authority under WRD's enabling act (California Water Code
24 Section 60000 *et seq.*).

25 C. Wasted and Nonchargeable Production Authorized By Watermaster

26 (1) In the event there is a rapid increase in the salinity of water
27 produced from a well within the Basin and the Party producing the water has reason to believe
28 that such increased salinity is the result of or potentially relates to sea water intrusion into the

1 Basin, a Party may petition the Administrative Body, acting on behalf of the Watermaster, for its
2 consent to make various changes in the operation of said well and waste the production therefrom
3 during such changed conditions, in an effort to identify the reason for the rapid increase in salinity
4 of the water produced from such well and to attempt to discover a method of operation for said
5 well which will decrease the salinity of the water produced therefrom to such an extent that the
6 well may be used in the future as part of the potable water supply of said Party.

7 (2) Upon receipt of such petition, the Administrative Body shall
8 consult with the Los Angeles County Flood Control District and may consult with others, as
9 needed, to determine whether such increased salinity in the water produced from said well
10 potentially relates to sea water intrusion into the Basin. After such consultation, should the
11 Administrative Body determine that the higher saline water produced from said well potentially
12 relates to sea water intrusion, the Administrative Body may issue a written approval that
13 authorizes the production and waste of water from said well in a manner which seeks to analyze
14 and find a method of well operation for correction of the increased salinity of the water produced
15 therefrom (a "Salinity Pumping Approval"). Such authorized water production and the waste
16 thereof shall not be charged to the production right of such producing Party and shall be exempt
17 from WRD's Replenishment Assessment.

18 (3) Regardless of the number of applications therefor, the
19 Administrative Body may authorize a maximum aggregate of 100 acre feet per fiscal year of
20 pumping and water wasting activities authorized under Salinity Pumping Approvals.

21 (4) If, during such authorized water production and waste thereof, such
22 produced water becomes potable or is used by such producer, the Administrative Body shall
23 immediately issue an order terminating the Salinity Pumping Approval.

24 (5) The results of all such Salinity Pumping Approvals shall be made
25 available to any party herein upon request therefor to the Watermaster.

26 D. Material Physical Harm

27 The Storage Panel shall consider any reasonable concern that a Storage Project, Water
28 Augmentation Project or New Storage Facility either individually or cumulatively is causing or is

1 reasonably likely to cause an imminent threat of Material Physical Harm made pursuant to a
2 report or request for hearing received pursuant to Section XI.2.A(8) of this Amended Judgment.
3 The Storage Panel shall act on that matter in accordance with Section V,13(B) of this Amended
4 Judgment. Any Party objecting to the Storage Panel's decision may file a motion with the Court
5 pursuant to Section XI.4.D of this Amended Judgment.

6 **4. Appeal from Watermaster Decisions Other Than With Respect to Budget**

7 A. The provisions of this Section shall not apply to budgetary matters, as to
8 which the appellate procedure is provided in Section XI.2.A(6).

9 B. Any Party who objects to any rule, determination, order or finding made by
10 the Watermaster, or any constituent body of the Watermaster, may, but is not required to, object
11 in writing delivered to the Administrative Body within thirty (30) days after the date the
12 constituent body of Watermaster mails written notice of the making of such rule, determination,
13 order or finding.

14 C. Within thirty (30) days after such delivery, the Watermaster, or the affected
15 constituent body thereof, shall consider said objection and shall amend or affirm the ruling,
16 determination, order or finding and shall give notice thereof to all Parties.

17 D. Within sixty (60) days from the date of said notice of a final ruling,
18 determination, order or finding of a constituent body of the Watermaster, any objecting Party may
19 file with the Court its objection to such final rule, determination, order or finding, and may bring
20 the same on for hearing before the Court at such time as the Court may direct, after first having
21 served said objection upon all other Parties. The Court may affirm, modify, amend or overrule
22 any such rule, determination, order or finding. Any factual determinations made by the
23 Watermaster or any constituent body thereof, shall be reviewed by the Court based on substantial
24 evidence in light of the whole record, and any questions of law shall be reviewed de novo.

25 E. Any objection under this paragraph shall not stay the rule, determination,
26 order or finding of a constituent body of the Watermaster. However, the Court, by ex parte order,
27 may provide for a stay thereof on application of any interested Party on or after the date that any
28 such Party delivers to the pertinent constituent body of the Watermaster any written objection.

1 **XII. RESERVED AND CONTINUING JURISDICTION OF COURT**

2 The Court hereby reserves continuing jurisdiction and, upon application of any Party
3 hereto having an Adjudicated Right or upon its own motion, may review: (1) its determination of
4 the safe yield of the Basin, or (2) the Adjudicated Rights, in the aggregate, of all of the Parties as
5 affected by the abandonment or forfeiture of any such rights, in whole or in part, and by the
6 abandonment or forfeiture of any such rights by any other person or entity, and, in the event
7 material change be found, to adjudge that the Adjudicated Right of each Party shall be ratably
8 changed; provided, however, that notice of such review shall be served on all Parties hereto
9 having Adjudicated Rights or any other right under this Amended Judgment to extract
10 groundwater at least thirty (30) days prior thereto. Except as provided herein, and except as
11 rights decreed herein may be abandoned or forfeited in whole or in part, each and every right
12 decreed herein shall be fixed as of the date of the entry hereof.

13 **XIII. JUDGMENT MODIFICATIONS AND FURTHER ORDERS OF COURT**

14 A. The Court further reserves jurisdiction so that at any time, upon its own motion or
15 upon application of any Party hereto having an Adjudicated Right, and upon at least thirty (30)
16 days' notice to all such Parties, to make such modifications of or such additions to, the provisions
17 of this Amended Judgment, or make such further order or orders as may be necessary or desirable
18 for the adequate enforcement, protection or preservation of the Basin and of the rights of the
19 Parties as herein determined.

20 B. This Amended Judgment does not determine nor affect the determination of
21 whether WRD's adoption of a Replenishment Assessment complied with applicable laws in the
22 event that any Replenishment Assessment is challenged in a legal action.

23 **XIV. RESERVATION OF RIGHTS**

24 All Parties retain all rights not specifically determined herein, including any right, by
25 common law or otherwise, to seek compensation for damages arising out of any act or omission
26 of any person. WRD retains any rights, powers or privileges that it may now have or may
27 hereafter have by reason of provision of law, including but not limited to the WRD Act, provided
28 that WRD shall perform any express duty or obligation specifically imposed on it, either in its

1 capacity as the Administrative Body or its statutory capacity, by this Amended Judgment.
2 Further, this Amended Judgment shall not excuse any Party from complying with any applicable
3 law, regulation or order.

4 **XV. DESIGNEES OF PARTIES FOR FUTURE NOTICE AND SERVICE**

5 A. Service of this Amended Judgment on those Parties who have executed and
6 filed with the Court "Agreement and Stipulation for Judgment" or otherwise have named a
7 designee, filed the same herein and have therein designated a person thereafter to receive notices,
8 requests, demands, objections, reports, and all other papers and processes in this cause, shall be
9 made by first class mail, postage prepaid, addressed to such designees (or their successors) and at
10 the address designated for that purpose.

11 B. Each Party who has not heretofore made such a designation shall, within
12 thirty (30) days after the Amended Judgment herein shall have been served upon that Party or its
13 designee, file with the Court, with proof of service of a copy thereof upon the Watermaster, a
14 written designation of the person to whom and the address at which all future notices,
15 determinations, requests, demands, objections, reports and other papers and processes to be
16 served upon that Party or delivered to that Party, are to be so served or delivered.

17 C. A later substitute or successor designation filed and served in the same
18 manner by any Party shall be effective from the date of such filing as to the then future notices,
19 determinations, requests, demands, objections, reports and other papers and processes to be
20 served upon or delivered to that Party.

21 D. Delivery to or service upon any Party by the Watermaster, by any other
22 Party, or by the Court, of any item required to be served upon or delivered to a Party under or
23 pursuant to this Amended Judgment, may be by deposit in the mail, first class, postage prepaid,
24 addressed to the latest designee and at the address in said latest designation filed by that Party.

25 E. Parties hereto who have not entered their appearance or whose default has
26 been entered and who are adjudged herein to have an Adjudicated Right, and who have not
27 named a designee for service herein, shall be served with all said future notices, papers and
28 process herein, and service herein shall be accomplished, by publication of a copy of such said

1 notice, paper or process addressed to, "Parties to the West Coast Basin Adjudication"; said
2 publication shall be made once each week for two successive weeks in a newspaper of general
3 circulation, printed and published in the County of Los Angeles, State of California, and
4 circulated within the West Coast Basin Area; the last publication of which shall be at least two
5 weeks and not more than five weeks immediately preceding the event for which said notice is
6 given or immediately preceding the effective date of any order, paper or process; in the event an
7 effective date other than the date of its execution is fixed by the Court in respect of any order,
8 paper or process, said last publication shall be made not more than five weeks following an event,
9 the entry of an order by the Court, or date of any paper or process with respect to which such
10 notice is given.

11 **XVI. INTERVENTION OF SUCCESSORS IN INTEREST AND NEW PARTIES**

12 Any person who is not a Party herein or successor to such Party and who proposes to
13 produce or store and produce water from the Basin may seek to intervene in this Amended
14 Judgment in accordance with applicable law, including, but not limited to, the California Code of
15 Civil Procedure, or through a Stipulation for Intervention entered into with the Water Rights
16 Panel. The Water Rights Panel may execute said Stipulation on behalf of the other Parties herein,
17 but such Stipulation shall not preclude a Party from opposing such intervention at the time of the
18 court hearing thereon. Said Stipulation for Intervention must thereupon be filed with the Court,
19 which will consider an order confirming said intervention following thirty (30) days' notice
20 thereof to the Parties, served as herein provided. Thereafter, if approved by the Court, such
21 Intervenors shall be a Party herein, bound by this Amended Judgment and entitled to the rights
22 and privileges accorded under the physical solution imposed herein.

23 **XVII. JUDGMENT BINDING ON SUCCESSORS**

24 Subject to the specific provisions hereinbefore contained, this Amended Judgment and all
25 provisions thereof are applicable to, binding upon and inure to the benefit of not only the Parties,
26 but as well to their respective heirs, executors, administrators, successors, assigns, lessees,
27 licensees and to the agents, employees and attorneys-in-fact of any such persons.
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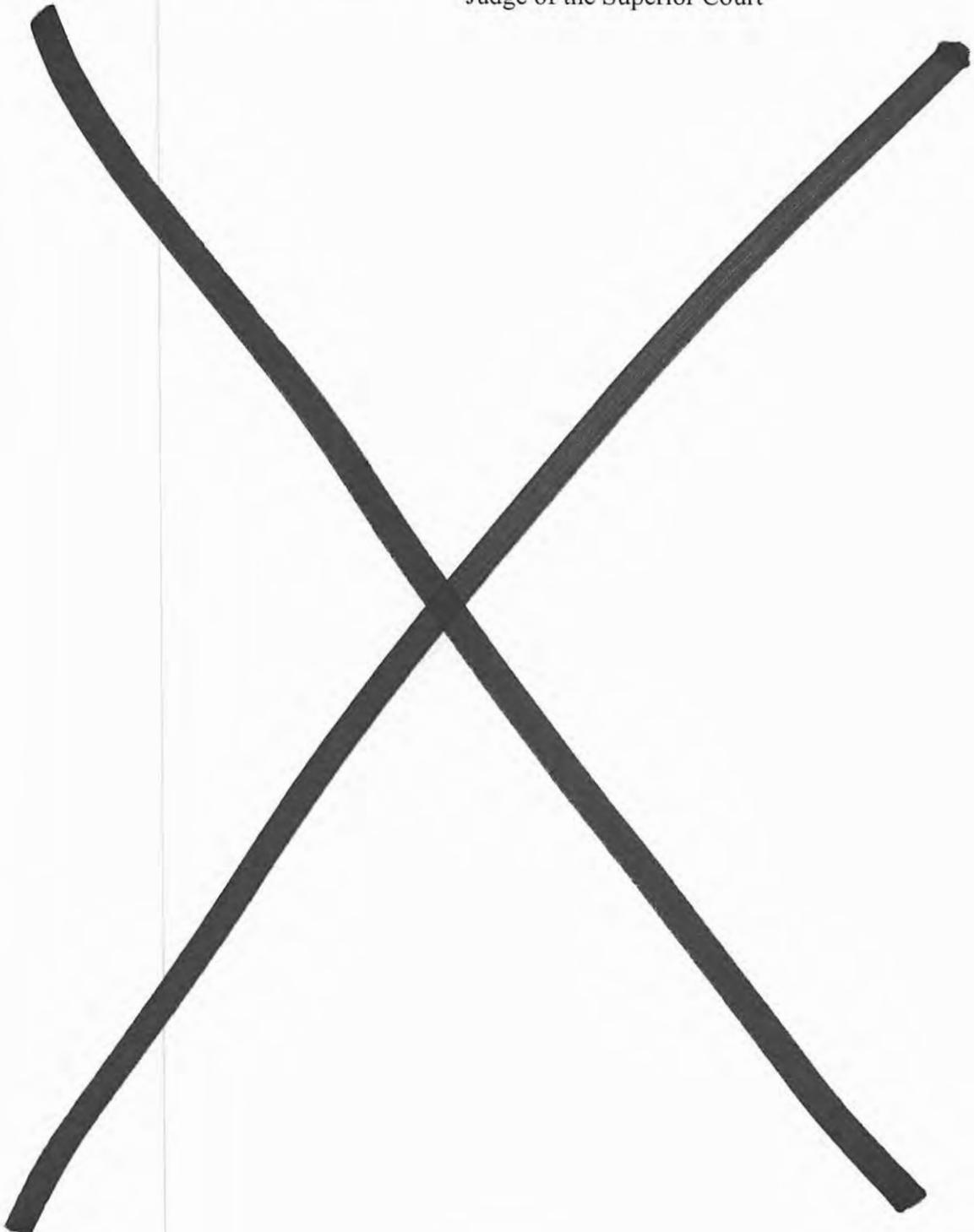
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THE CLERK WILL ENTER THIS AMENDED JUDGMENT FORTHWITH.

DATED: DEC 05 2014

KENNETH R. FREEMAN

Judge of the Superior Court



BROWNSTEIN HYATT FARBER SCHRECK, LLP
21 East Carrillo Street
Santa Barbara, CA 93101-2706

EXHIBIT A

EXHIBIT A

ADJUDICATED RIGHTS

Party I.D.	Party	Adjudicated Right
7002	A B C Nursery, Inc.	24.10
7013	Aqua Capital Management LP	11.80
7015	Asahi Fancy Koi, Inc.	2.00
7025	Atlantic Richfield Company	0.00
7028	Automation Industries, Inc.	0.70
7048	CBS, Inc.	9.50
7050	California Water Service Company	4,070.00
7053	California Water Service Company (Dominguez)	10,417.45
7052	California Water Service Company (Hawthorne Lease)	0.00
7065	Carson-Harbor Village Mobile Home Park	7.00
7070	Carson-Madrona Company	104.00
7075	Century Builders	4.70
7080	Chandler's Palos Verdes Sand & Gravel Company	294.20
7086	Chevron USA, Inc.	4,601.30
7089	Coastline Church of Christ	0.70
7100	Curtis, Owen W.	0.36
7110	Delaney, Golda, Estate of	4.10
7150	El Segundo, City of	953.00
7156	Engelsma, Susan Trust	12.10
7165	Evergreen America Corp.	5.40
7201	Fujimoto, S.R., S.T. & J.K.	20.00
7220	Gillingham, Florence R., et al.	2.40
7226	Golden State Water Company	7,502.24
7260	Hawthorne, City of	1,882.00
7270	Hillside Memorial Park	92.30
7278	Hollywood Park Land Company, LLC	282.00
7003	Honeywell International., Inc.	22.50
7285	Honold, Kristin Brandsma	11.80
7293	Hughes Aircraft Company	0.00
7310	Inglewood, City of	4,449.89
7312	Inglewood Park Cemetery	0.00
7364	Kinder Morgan Liquids Terminals, LLC	167.00
7380	Leuzinger, Emma L. Estate of	1.40
7450	Lomita, City of Water System	1,352.00
7390	Long Beach, City of	0.70
7400	Lopes, Frank	3.70
7410	Los Angeles, City of	1,503.00
7435	Los Angeles County Recreation Facilities	363.70
7440	Los Angeles County Sanitation District 2	102.00
7480	Loyola Marymount University	48.10
7490	Manhattan Beach, City of	1,131.20
7500	Mayflower Nurseries	0.00
7501	McDonnell Douglas Corporation	1.70
7510	Mobil Oil Corporation	2,596.40

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Party I.D.	Party	Adjudicated Right
7514	Montrose Chemical Corporation of California	1.20
7520	Mori, Roy H. and Kenji	3.60
7533	Myron Z. Chlavin & Nettie Desser Trust & JHD Pr.	0.00
7563	Northrop Corporation	38.15
7566	Nozaki, Sumikichi	7.00
7580	Pacific Crest Cemetery Company	39.40
7590	Palos Verdes Begonia Farm	0.00
7093	Phillips 66 Company	6,170.00
7620	Rehor, Josephine P.	2.20
7623	Rhodia, Inc.	521.00
7657	Rolling Hills Vista	0.00
7659	Roman Catholic Archbishop of Los Angeles	72.30
7700	Shell Oil Company	1,019.50
7720	Southern California Edison Company	57.10
7807	Tesoro Refining and Marketing Company	8,741.00
7850	Torrance, City of	5,638.86
7913	Vukelich, Mike Jr.	10.00
7920	Watson Land Company	80.20
7925	Watt Industrial Properties	0.10
7936	Western Water Service Company	0.00
7940	Wiseburn School District	8.20
7950	Zeigler, Maxwell T.	0.00
	West Coast Basin Total	64,468.25

EXHIBIT B

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EXHIBIT B

NONCONSUMPTIVE USE

1. Nonconsumptive Water Use Right:

ORDER APPROVING INTERVENTION AFTER JUDGMENT OF HUGHES
AIRCRAFT COMPANY, AS A PARTY DEFENDANT, AND AMENDING AMENDED
JUDGMENT HEREIN

(Filed September 24, 1981)

The Petition of Defendant, Dominguez Water Corporation, for the order set forth below
duly and regularly came on for hearing on September 24, 1981. Helm, Budinger & Lemieux and
Ralph B. Helm, appeared as attorneys for said defendant and proof being made to the satisfaction
of the court, and good cause appearing:

IT IS ORDERED that Hughes Aircraft Company be, and it is, hereby, made a party
defendant herein, bound and entitled to the burdens and benefits of the Judgment herein.

IT IS FURTHER ORDERED that the Amended Judgment herein be further amended in
the following particulars:

That there be added to the Amended Judgment herein, Paragraph III-A to
read as follows:

“III-A

“There is hereby established a ‘nonconsumptive water use
right’ in the Basin which is subordinate to the adjudicated rights set
forth in Paragraph III hereof and which right is exercisable only on
the hereinafter specifically defined lands and cannot be separately
conveyed or transferred apart therefrom.

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“Such right is exercisable without quantitative limit so long as Watermaster reasonably determines at the end of each fiscal year that the water produced from the Basin under such right is used in a closed system so that essentially all such produced water is returned without quality impairment, to the aquifer of the Basin from which the same was produced.

“Annually, during the first two weeks of June in each calendar year, such nonconsumptive water right producer shall submit to Watermaster a verified statement as to the amount and nature of the then current uses of said nonconsumptive right for the next ensuing fiscal year, whereupon Watermaster shall either affirm the nonconsumptive nature of such use or petition the Court for instructions or an injunction prohibiting the exercise of such nonconsumptive right by said nonconsumptive right producer.

“HUGHES AIRCRAFT COMPANY is the owner of a non-consumptive water right use in the Basin.

“A nonconsumptive water right owner shall, at such party’s own expense, install and at all times maintain in good working order, mechanical measuring devices, approved by Watermaster, and keep records of water production and water returned to the Basin, as required by the Watermaster, through the use of such devices. The Watermaster may require such nonconsumptive use right party, at such party’s own expense, to measure and record not more often than once a month, the elevation of the static water level of his well.

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“Any nonconsumptive production of a party herein shall be considered in the total adjudicated rights of all parties herein for the purpose of sharing Watermaster’s fees as parties’ costs.

“Payment of his proportionate share of Watermaster fees, whether or not subject to adjustment by the Court as provided in Paragraph XII of the Judgment herein, shall be made by each such party, on or prior to the beginning of the fiscal year to which such final budget and statement of assessed cost is applicable. If such payment by any party is not made on or before said date, the Watermaster shall add a penalty of 5 percent thereof to such party’s statement. Payment required of any party hereunder may be enforced by execution issued out of the Court, or as may be provided by any order hereinafter made by the Court, or by other proceedings by the Watermaster or by any party hereto on the Watermaster’s behalf.

“Each nonconsumptive water right owner, its officers, agents, employees, successors and assigns, IS ENJOINED AND RESTRAINED from materially changing said nonconsumptive use at any time without first notifying Watermaster of the intended change of use, in which event Watermaster shall promptly petition the Court for instructions concerning the future exercise of such nonconsumptive use right.

“Defendant owner of said nonconsumptive right shall comply with and be subject to the rules and regulations of Watermaster and within 60 days of the entry of this Order, confirm

1 with the Watermaster that the meters now installed on its existing
2 wells satisfactorily measure its water production and return to the
3 Basin. If such meters are not approved by Watermaster, Defendant
4 owner shall have meters of the type designated by Watermaster
5 installed within 60 days of Watermaster's said determination.

6
7 "The property upon which said nonconsumptive use wells
8 are located is situated in the County of Los Angeles, State of
9 California and is described as follows:

10 Parcel 1:

11 The surface and that portion of the subsurface lying above a plane 500 feet in depth, measured
12 vertically from the surface, as said surface existed on January 27, 1959 of that portion of that
13 certain parcel of land in the Rancho Los Palos Verdes, in the city of Torrance, county of Los
14 Angeles, state of California, allotted to Orin S. Weston by decree of distribution in the estate of B.
15 S. Weston, recorded in book 2838 page 230 of Deeds, in the office of that certain tract of land
marked "B.S. Weston 1898.4 Acres" on a map of partition of part of the Rancho Los Palos
Verdes, filed in Case No. 11575, of the Superior Court of said county, a copy of which map is
filed in book 1 page 3, of Record of Surveys, in said office of the county recorder, described as
follows:

16 Beginning at the southwest corner of that certain parcel of land conveyed to Standard Oil
17 Company by deed dated December 18, 1925, recorded in book 5494 page 188 of Official Records
18 of said Los Angeles County; thence South 62° 50' 50" East along the southerly boundary line of
19 said land conveyed to Standard Oil Company 2141.41 feet, to the southeasterly corner of the land
20 described in the deed to Pacific Semiconductors, Inc., a Delaware corporation, recorded January
21 3, 1963, as Instrument No. 2182, in book D 1872 page 433, Official Records, and the true point of
22 beginning of this description; thence northerly, parallel with the westerly boundary line of said
23 B.S. Weston Allotment to a point in the southwesterly boundary line of Lomita Boulevard,
formerly known as Wilmington and Salt Works Road, as described in deeds to the County of Los
Angeles, recorded in book 1135 page 101 of Deeds, and in book 754 page 171 of Deeds, records
of said Los Angeles County; thence southwesterly along the southwesterly boundary line of
Lomita Boulevard 422.81 feet; thence southerly parallel with the westerly boundary line of said
B.S. Weston allotment to a point in the southerly line of said land conveyed to Standard Oil
Company; thence North 62° 50' 50" West along said southerly line 422.81 feet to the true point of
beginning.

24 EXCEPT all oil gas, asphaltum and other hydrocarbon substances and other minerals in or under
25 said land or that may be produced there from, but with no right of. en try upon or through the
26 surface of or that portion of the subsurface lying 500 feet vertically in depth below the surface
thereof, as reserved by H. J. Early and Daisy Lee Early, his wife, in deed recorded April 16, 1963.

27 Parcel 2:

28 The surface and that portion of the subsurface lying above a plane 500 feet in depth, measured
vertically from the surface, as said surface existed on January 27, 1959 of that portion of that

1 certain parcel of land in the Rancho Los Palos Verdes, in the city of Torrance , county of Los
2 Angeles, state of California, allotted to Orin S. Weston by decree of distribution in the estate of
3 B.S. Weston, recorded in book 2838 page 230 of Deeds, in the office of the county recorder of
4 said county, and being the part of that certain tract of land marked "B.S. Weston 1898.4 Acres"

5 Beginning at the southwest corner of that certain parcel of land conveyed to Standard Oil
6 Company by deed dated December 18, 1925, recorded in book 5494 page 188 of Official Records
7 of said Los Angeles County; thence South 62°SO'SO" East along the southerly boundary line of
8 said land conveyed to Standard Oil Company 1718.60 feet, to the southeasterly corner of the land
9 described in the deed to Pacific Semiconductors, Inc., a Delaware corporation, recorded May 1,
10 1961, as Instrument No. 1723, in book D 1206 page 131, Official Records, and the true point of
11 beginning of this description; thence northerly, parallel with the westerly boundary line of said
12 B.S. Weston Allotment to a point in the southwesterly boundary line of Lomita Boulevard,
13 formerly known as Wilmington and Salt Works Road, as described in deeds to the county of Los
14 Angeles, recorded in book 1135 page 101 of Deeds and in book 754 page 171 of Deeds, records
15 of said Los Angeles county; thence southeasterly along the southwesterly boundary line of
16 Lomita Boulevard 422.81 feet; thence southeasterly parallel with the westerly boundary line of
17 said B.S. Weston allotment to a point in the southerly line of said land conveyed to Standard Oil
18 Company; thence North 62° 50' 50" West along said southerly line, 422.81 feet to the true point
19 of beginning.

20 EXCEPT all oil, gas, asphaltum and other hydrocarbon substances and other minerals in or under
21 said land or that may be produced therefrom, but with no right of entry upon or through the
22 surface of or that portion of the subsurface lying 500 feet vertically in depth below the surface
23 thereof.

24 Dated: September 24, 1981 [Signature]
25 _____
26 Judge

27 **2. Nonconsumptive Use Practices:**

28 ORDER AMENDING JUDGMENT

(Filed with County Clerk on March 8, 1989)

GOOD CAUSE APPEARING upon the duly-noticed Motion of West Basin Municipal
Water District:

IT IS HEREBY ORDERED THAT THE JUDGMENT HEREIN BE AMENDED AS
FOLLOWS:

“NON-CONSUMPTIVE PRACTICES

1. Any party herein may petition the Watermaster for a non-consumptive water use
permit as part of a project to recover old refined oil or other pollutants that has leaked into the

1 underground aquifers of the Basin. If the petition is granted as set forth in this part, the petitioner
2 may extract the groundwater covered by the petition without the production counting against the
3 petitioner's production rights.

4 2. If the Watermaster determines that there is a problem of groundwater
5 contamination which the proposed project will remedy or ameliorate, an operator may make
6 extractions of groundwater to remedy or ameliorate that problem if the water is not applied to
7 beneficial surface use, its extractions are made in compliance with terms and conditions
8 established by the Watermaster, and the Watermaster has determined either of the following:

9 (a) The groundwater to be extracted is unusable and cannot be economically
10 blended for use with other water.

11 (b) The proposed program involves extraction of usable water in the same
12 quantity as will be returned to the underground without degradation of quality.

13 3. The Watermaster may provide those terms and conditions the Watermaster deems
14 appropriate, including, but not limited to, restrictions on the quantity of extractions to be so
15 exempted, limitations on time, periodic reviews, requirement of submission of test results from a
16 Watermaster-approved laboratory, and any other relevant terms or conditions.

17 4 The Watermaster shall conduct a public hearing on the petition and all parties
18 herein and their representatives shall have an opportunity to be heard concerning the same.

19 5. The Watermaster shall, in its discretion, grant or deny the petition and fix a
20 reasonable annual administrative fee to be paid to the Watermaster by the permittee. Within
21 fifteen (15) days after the rendition of its decision, the Watermaster shall give written notice
22 thereof to the designees of all parties herein.

23 6. After a noticed, public hearing, the Watermaster may, on the motion of any party
24 herein or on its own motion, interrupt or stop a project for non-compliance with the terms of its
25 permit or rescind or modify the terms of a permit to protect the integrity of the Basin of the
26 Judgment herein. An order to interrupt or stop a project or to rescind or modify the terms of a
27 permit shall apply to groundwater extractions occurring more than 10 days after the date of the
28 order. The permit holder and the designees of all parties herein shall be given two weeks written

1 notice of any hearing to consider interrupting or stopping a permitted project or the rescission or
2 modification of the terms of a permit. Notice will be deemed given when mailed by first-class
3 mail or when personally delivered.

4 7. The Watermaster's decision to grant, deny, modify or revoke a permit or to
5 interrupt or stop a permitted project may be appealed to this court within thirty (30) days of the
6 notice thereof and upon thirty (30) days notice to the designees of all parties herein.

7 8. The Watermaster shall monitor and periodically inspect the project for compliance
8 with the terms and conditions of the permit hereunder.

9 9. No party shall recover costs from any other party herein."

10 IT IS FURTHER ORDERED that the amendment to the judgment approved by the court
11 on March 22, 1984 ("former amendment") is hereby repealed, provided, all permits issued by the
12 Watermaster under the former amendment shall be deemed under the instant amendment.

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Dated: March 8, 1989

[Signature]

Judge

EXHIBIT C

EXHIBIT C

The following facilities are the “Existing Facilities” as defined in Section II of the Amended Judgment. (The attached WRD District map also identifies these Existing Facilities.)

West Coast Barrier (WCB)

The West Coast Barrier, established in 1952-1953, is located on the west-facing coast of West Coast Basin, south of Los Angeles International Airport and in the cities of El Segundo, Manhattan Beach, Hermosa Beach, Redondo Beach, and Torrance.

The system is comprised of the following:

153 injection wells

73 are single injection wells

35 are dual injection wells (i.e., 70 wells total)

10 are composite wells, injecting into multiple aquifers

150 monitoring wells (150 well casings; many are nested locations)

100,000 feet of supply, distribution and disposal pipelines, ranging in size from 8 to 45 inches in diameter; composed of transite (asbestos/cement) pipe

Various blowoff valves, air relief valves, mainline valves (for clearing lines, isolating lines for maintenance work)

Pressure reducing station

Imported water is provided to the barrier through MWD connection WB-28 and recycled water is provided through a connection to WBMWD’s West Basin Water Recycling Facility)

The West Coast Barrier alignment is approximately 1 mile inland of and parallel to Pacific Ocean. All aquifers along WCB are essentially flat-lying and merged in various locations. The Palos Verdes Hills at south end of WCB is composed of relatively impermeable materials, creating natural no-flow boundary for groundwater.

Other major structural features along WCB alignment include stabilized sand dunes (e.g., El Segundo Sand Hills).

Injection occurs in the 200-Foot Sand, Silverado Aquifer, and Lower San Pedro Formation (these aquifers occur at varying depths along the WCB alignment, and are merged at various locations). Depths range from near sea level (200-Foot Sand) to ~600 feet below sea level (Lower San Pedro Formation).

The WCB wells have an average injection rate ~0.30 cfs (~0.60 AF/day) and total barrier injection of ~21,000 AF/yr.

Dominguez Gap Barrier (DGB)

The Dominguez Gap Barrier, established in 1970-71, is located on the south-facing coast of West Coast Basin, north of Terminal Island, in the cities of Los Angeles, Carson, and Long Beach.

The system is comprised of the following:

94 injection wells

Original number of wells = 41

New wells added in 2001 = 33 (at 17 locations, mostly along a new alignment along Spring Street) = “automated wells” (wells have “juttering” redevelopment systems, and SCADA systems)

New wells added in 2004 = 20 (at 10 locations along the existing barrier alignment to fill in the gaps)

Some are single injection wells, injecting into the 200-Foot Sand

1 Some are dual injection wells (i.e., 56 wells total), injecting into the Gaspur/200-Foot Sand and
2 400-Foot Gravel
3 At least one is a composite well, injecting into the Gaspur/200-Foot Sand and 400-Foot Gravel
4 344 monitoring wells (i.e., well casings; most well locations are nested; including 12 nested wells
5 added as part of eastern extension in Spring 2004)
6 31,000 feet of supply and distribution pipelines, ranging in size from 10 to 24 inches in diameter;
7 composed of transite (asbestos/cement) pipe
8 Various blowoff valves, air relief valves, mainline valves (for clearing lines, isolating lines for
9 maintenance work)
10 Pressure reducing station

11 Imported water is provided to the barrier through MWD connection WB-37 and recycled water is
12 provided through a connection to LADWP's Terminal Island Treatment Plant.

13 The DGB is constructed across Dominguez Gap, ancient (probably Late Pleistocene) course of
14 Los Angeles and San Gabriel Rivers. All aquifers are essentially flat-lying with minor faulting
15 and warping in the 400-Foot Gravel, Silverado and Pico units; the minor folding occurs along the
16 northwest-trending anticlines and synclines between the Palos Verdes Fault Zone to the southwest
17 and the Newport-Inglewood Uplift to the north.

18 The Gaspur/200-Foot Sand aquifers are in hydraulic continuity with San Pedro Bay, while
19 aquifers deeper than the 400-Foot Gravel are protected from direct contact with seawater from
20 DGB injection into 200-Foot Sand in east-west leg of barrier.

21 DGB injection occurs in 200-Foot Sand and 400-Foot Gravel in north-south leg of barrier.
22 Depths range from ~30 to 40 feet below sea level (200-Foot Sand) to over 450 feet below sea
23 level (400-Foot Sand).

24 The DGB wells have an average injection rate ~0.15 cfs (~0.30 AF/day) (Several factors have
25 caused reduction in effectiveness of barrier: failure of clay cap caused surface leakage at some
26 injection wells and required reductions in injection rates; western edge of barrier does not provide
27 protection against seawater intrusion because it does not extend to the less permeable Palos
28 Verdes Hills; historical seaward pumping for reinjection into oil wells lowered water levels
seaward of barrier and enhanced barrier operations) Total injection at barrier ~8,000 AF/yr.