

JUNE 28, 2021

WEST BASIN MUNICIPAL WATER DISTRICT



# URBAN WATER MANAGEMENT PLAN



UWSC



WEST BASIN MUNICIPAL WATER DISTRICT

---

# 2020 Urban Water Management Plan

JUNE 28, 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



**Harold C.  
Williams**  
Division I

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



**Gloria D.  
Gray**  
Division II

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



**Desi  
Alvarez**  
Division III

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



**Scott  
Houston**  
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



**Donald L.  
Dear**  
Division V

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



An aerial photograph of a large industrial facility, likely a water treatment plant, featuring numerous large rectangular tanks, complex piping systems, and several large solar panel arrays. The facility is situated in an urban area, with a city skyline and mountains visible in the background under a clear blue sky. A semi-transparent dark blue banner is overlaid across the lower portion of the image, containing white text.

## 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.



Jeff Szytel, PE  
Rob Morrow, PE  
Heather Freed, PE  
Lizzie Wiley, EIT



Lisa Maddaus, PE

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

# TABLE OF CONTENTS

---

List of Figures ..... v

List of Tables ..... vii

Acronyms & Abbreviations ..... viii

Executive Summary ..... ES-1

1. Introduction..... 1-1

    1.1 UWMP Purpose and Overview..... 1-2

    1.2 UWMP Organization..... 1-3

    1.3 UWMPs in Relation to Other Efforts ..... 1-4

    1.4 Demonstration of Consistency with the Delta Plan for Participants in Covered Actions..... 1-5

2. Plan Preparation..... 2-1

    2.1 Coordination and Outreach..... 2-2

        2.1.1 Wholesale and Retail Coordination..... 2-2

        2.1.2 Coordination with Other Agencies and the Community..... 2-2

        2.1.3 Notice to Cities and Counties..... 2-3

3. System Description..... 3-1

    3.1 General Description ..... 3-2

    3.2 Service Area Climate..... 3-8

        3.2.1 Climate Change ..... 3-8

    3.3 Service Area Population and Demographics..... 3-10

        3.3.1 Other Social, Economic, and Demographic Factors..... 3-11

4. Water Use Characterization ..... 4-1

    4.1 Retail Demands ..... 4-2

        4.1.1 Past and Current Water Use ..... 4-2

        4.1.2 Projected Service Area Demands..... 4-4

        4.1.3 Net West Basin Retail Demand Projections ..... 4-10

    4.2 Groundwater Replenishment Demand ..... 4-11

    4.3 Summary of West Basin Demand Projections..... 4-13

5. SBX7-7 Baseline, Targets and 2020 Compliance ..... 5-1

6. Water Supply Characterization ..... 6-1

    6.1 Water Supply Overview..... 6-2

    6.2 Imported Water..... 6-5



6.2.1 Colorado River Supplies.....	6-6
6.2.2 State Water Project Supplies.....	6-7
6.2.3 Supply Capabilities.....	6-8
6.2.4 Imported Water Reliability .....	6-10
6.3 Groundwater .....	6-11
6.3.1 Basin Description and Water Rights.....	6-11
6.3.2 Historic and Current Groundwater Supply .....	6-14
6.3.3 Projected Groundwater Supply .....	6-16
6.4 Wastewater and Recycled Water.....	6-17
6.4.1 Recycled Water System .....	6-20
6.4.2 Potential, Current, and Projected Recycled Water Uses.....	6-22
6.4.3 Actions to Exchange and Optimize Future Recycled Water Use.....	6-24
6.4.4 Potable Reuse.....	6-24
6.5 Desalinated Groundwater .....	6-26
6.6 Water Exchanges and Transfers .....	6-27
6.7 Stormwater .....	6-28
6.8 Future Ocean Water Desalination Project.....	6-29
6.8.1 Ocean Water Desalination Process .....	6-30
6.8.2 West Basin’s Previous Efforts and Current Project Status.....	6-31
6.9 Supply Projections Summary.....	6-34
6.10 Energy Intensity.....	6-36
7. Water Service Reliability and Drought Risk Assessment .....	7-1
7.1 Supply Reliability Challenges .....	7-2
7.1.1 Imported Water.....	7-3
7.1.2 Groundwater .....	7-5
7.1.3 Recycled Water.....	7-6
7.1.4 Ocean Water Desalination.....	7-6
7.1.5 Climate Change .....	7-6
7.2 Water Service Reliability Assessment.....	7-10
7.2.1 Year Type Characterization .....	7-10
7.2.2 Water Service Reliability.....	7-11
7.3 2021–2025 Drought Risk Assessment.....	7-15
7.3.1 Data, Methods, and Basis for Water Shortage Condition.....	7-15
7.3.2 DRA Water Source Reliability.....	7-16
8. Water Shortage Contingency Plan .....	8-1
8.1 Water Shortage Contingency Plan Overview .....	8-2

8.2 Water Shortage Contingency Plan Outline .....	8-4
8.3 Shortage Levels.....	8-6
8.4 Next Steps .....	8-6
9. Demand Management Measures .....	9-1
9.1 Metering .....	9-2
9.2 Public Education and Outreach .....	9-3
9.2.1 West Basin Public Information and Education Programs.....	9-3
9.2.2 Water for Tomorrow Campaign.....	9-3
9.2.3 West Basin Newsletter.....	9-3
9.2.4 Media Relations .....	9-3
9.2.5 Social Media and Website.....	9-4
9.2.6 Speakers Bureau.....	9-5
9.2.7 Imported Water Supply Tours .....	9-5
9.2.8 Water Harvest Festival.....	9-6
9.2.9 Community Events.....	9-7
9.2.10 Water Recycling Tours .....	9-8
9.2.11 School Education Programs .....	9-9
9.2.12 Virtual Community and School Education Programs .....	9-14
9.3 Water Conservation Programs and Other Demand Management Measures.....	9-16
9.3.1 Introduction.....	9-16
9.3.2 Past Five Years of Goals, Programs, and Successes.....	9-17
9.3.3 Future Programs.....	9-27
9.3.4 Partnerships.....	9-29
9.4 Asset Management .....	9-30
9.5 Ongoing Wholesaler Supplier Coordination and Future Assistance Programs .....	9-31
9.5.1 Water Use Efficiency Survey.....	9-31
9.5.2 Quarterly Meetings .....	9-32
9.5.3 Assistance with State Water Resources Control Board Water Use Regulations and Reporting Requirements .....	9-32
10. Plan Adoption, Submittal, and Implementation.....	10-1
10.1 Notice of Public Hearing.....	10-2
10.2 Public Hearing and Adoption .....	10-3
10.3 Plan Submittal .....	10-3
10.4 Public Availability .....	10-3
10.5 Amending an Adopted UWMP or WSCP .....	10-4
11. References.....	11-1



Appendix A. UWMP Checklist .....	A
Appendix B. DWR Standardized Tables.....	B
Appendix C. Water Shortage Contingency Plan.....	C
Appendix D. Delta Reliance .....	D
Appendix E. Notifications .....	E
Appendix F. Adoption Resolutions.....	F
Appendix G. West Coast Groundwater Basin Adjudication and Amendment.....	G

# LIST OF FIGURES

Figure ES-1: Previous and Ongoing Planning Efforts.....	ES-2
Figure ES-2: West Basin Service Area .....	ES-4
Figure ES-3: Demand Projections: Service Area Retail, West Basin Retail, and West Basin Potable.....	ES-8
Figure ES-4: West Basin Service Area, Existing and Projected Water Supplies .....	ES-14
Figure ES-5: West Basin Service Area Retail Supply Projections for Normal and Single-Dry Years.....	ES-20
Figure ES-6: West Basin Supply Projections for Normal and Single-Dry Years .....	ES-21
Figure 1-1. Previous and Ongoing Planning Efforts .....	1-4
Figure 3-1. West Basin Board of Directors .....	3-3
Figure 3-2. West Basin Retail Agencies.....	3-4
Figure 3-3. West Basin Service Area .....	3-5
Figure 4-1: Historic West Basin Service Area Retail Demand.....	4-3
Figure 4-2: West Basin Service Area Retail Demand Projections.....	4-7
Figure 4-3: Groundwater Pumping Within West Basin Service Area.....	4-8
Figure 4-4: Non-Potable Recycled Water Deliveries Within West Basin Service Area .....	4-9
Figure 4-5: Historic West Basin Replenishment Supplies .....	4-12
Figure 6-1. Historic West Basin Service Area Retail Demand by Water Type .....	6-3
Figure 6-2. Historic West Basin Replenishment Supplies .....	6-4
Figure 6-3. Colorado River Aqueduct (Metropolitan Water District of Southern California, March 2021).....	6-6
Figure 6-4. Southern Portion of the SWP (State Water Project, 2021).....	6-7
Figure 6-5. West Coast Groundwater Basin.....	6-13
Figure 6-6. Historic Groundwater Pumping in West Basin's Service Area.....	6-15
Figure 6-7. Historic West Basin Service Area Recycled Water Supply by Demand Type and Location.....	6-19
Figure 6-8. Recycled Water Distribution System (Recycled Water Facilities Service Area Map, 2018).....	6-21
Figure 6-9. Desalination Process (The West Basin Ocean Water Desalination Project, 2021) ..	6-31
Figure 6-10. West Basin Service Area, Total Water Supplies.....	6-35
Figure 7-1. West Basin Service Area, Normal Year and Single-Dry Year Retail Demand and Supply Projections.....	7-12
Figure 7-2. West Basin Total Demand and Supply Projections, Normal Year and Single-Dry Year.....	7-13
Figure 7-3. West Basin 2021–2025 Drought Risk Assessment.....	7-17
Figure 8-1. Wholesalers and Retailer Plans Inter-relationship.....	8-3



Figure 9-1. West Basin January through June 2019 Community Outreach Activities Snapshot ....	9-7
Figure 9-2. West Basin Grass Removal Rebate Applications (2015-2020) .....	9-23
Figure 9-3. Interest in Implementation of Potential Future Programs .....	9-31

# LIST OF TABLES

---

Table ES-1: Current and Projected Replenishment Groundwater Supply (AFY) .....	ES-9
Table 2-1: Coordination with Appropriate Agencies.....	2-4
Table 3-1. Types of Water Supplied to West Basin Retail Agencies.....	3-6
Table 3-2. Monthly Average Climate Data in Los Angeles County.....	3-8
Table 3-3. Current and Projected Demographics.....	3-10
Table 4-2: 2020–2045 West Basin Demand Projections (AFY) .....	4-10
Table 4-3: Current and Projected Replenishment Groundwater Supply (AFY).....	4-11
Table 4-4: 2020–2045 West Basin Demand Projections (AFY) .....	4-13
Table 6-1. Groundwater Pumping Rights within West Basin Service Area, AFY .....	6-14
Table 6-2. Groundwater Volume Pumped (AFY) and Used in West Basin’s Service Area (DWR Table 6-1).....	6-15
Table 6-3. Projected Groundwater Production (AFY) in West Basin’s Service Area .....	6-16
Table 6-4. 2015 Recycled Water Use Projection Compared to 2020 Actual (DWR Table 6-5W).....	6-22
Table 6-5. Current and Projected Recycled Water Use within West Basin's Service Area (DWR 6-4W).....	6-23
Table 6-6. Source Water Desalination (DWR Table 6-8DS) .....	6-26
Table 6-7. Timeline of West Basin's Efforts to Explore and Develop an Ocean Water Desalination Facility.....	6-31
Table 6-8. FY2020 Actual Water Supplies .....	6-34
Table 6-9. Projected Water Supplies (DWR 6-9W) .....	6-34
Table 6-10. ECLWRF (Recycled Water) Energy Intensity .....	6-36
Table 7-1. Multiple-Dry Years Supply and Demand Comparison (DWR Table 7-4W).....	7-14
Table 8-1. Water Shortage Levels.....	8-6
Table 9-1. Media News Releases 2015–2020 .....	9-4
Table 9-2. West Basin Website Users 2018–2020 .....	9-4
Table 9-3. Recycled Water Tours 2015–2017 .....	9-8
Table 9-4. Student Visits to the Desalination Water Education Center from 2015–2019.....	9-11
Table 9-5. 2020 Change & Save Program Measures Provided .....	9-20
Table 9-6. Malibu/Topanga Smart Program Performance Measures from 2015–2020 .....	9-22
Table 9-8. Conservation Rebate Activity Summary (Metropolitan WaterSmart 2015–2020)...	9-24
Table 9-9. LIEP Measures from 2015–2020 .....	9-24
Table 10-1. Newspaper Public Notices.....	10-2



# 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
MWEL	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



## URBAN WATER MANAGEMENT PLAN

# 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

### IN THIS SECTION

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

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.

## Purpose and Organization of the Plan

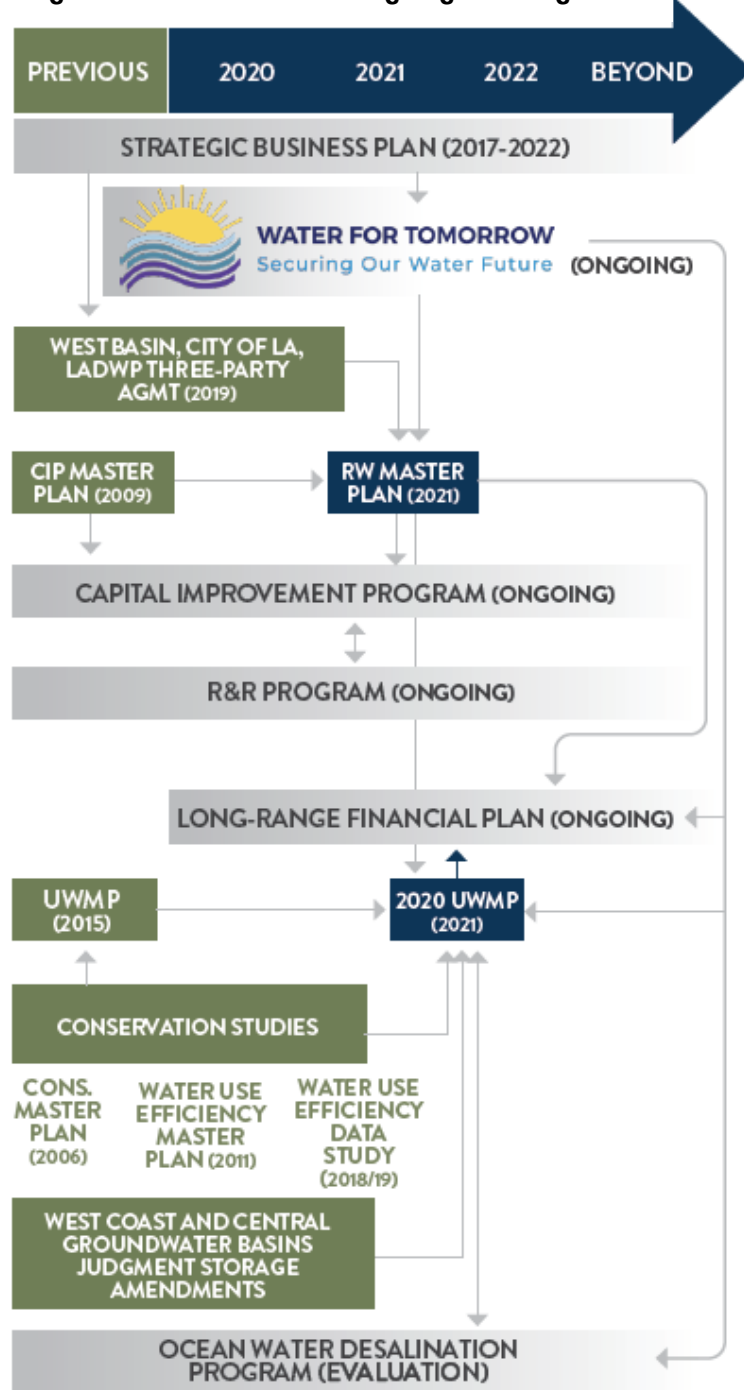
This UWMP provides DWR with a detailed summary of present and future water resources and demands within West Basin's service area. It also assesses West Basin's water resource needs. Specifically, the UWMP provides water supply planning for a 25-year planning period in five-year increments and identifies 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**





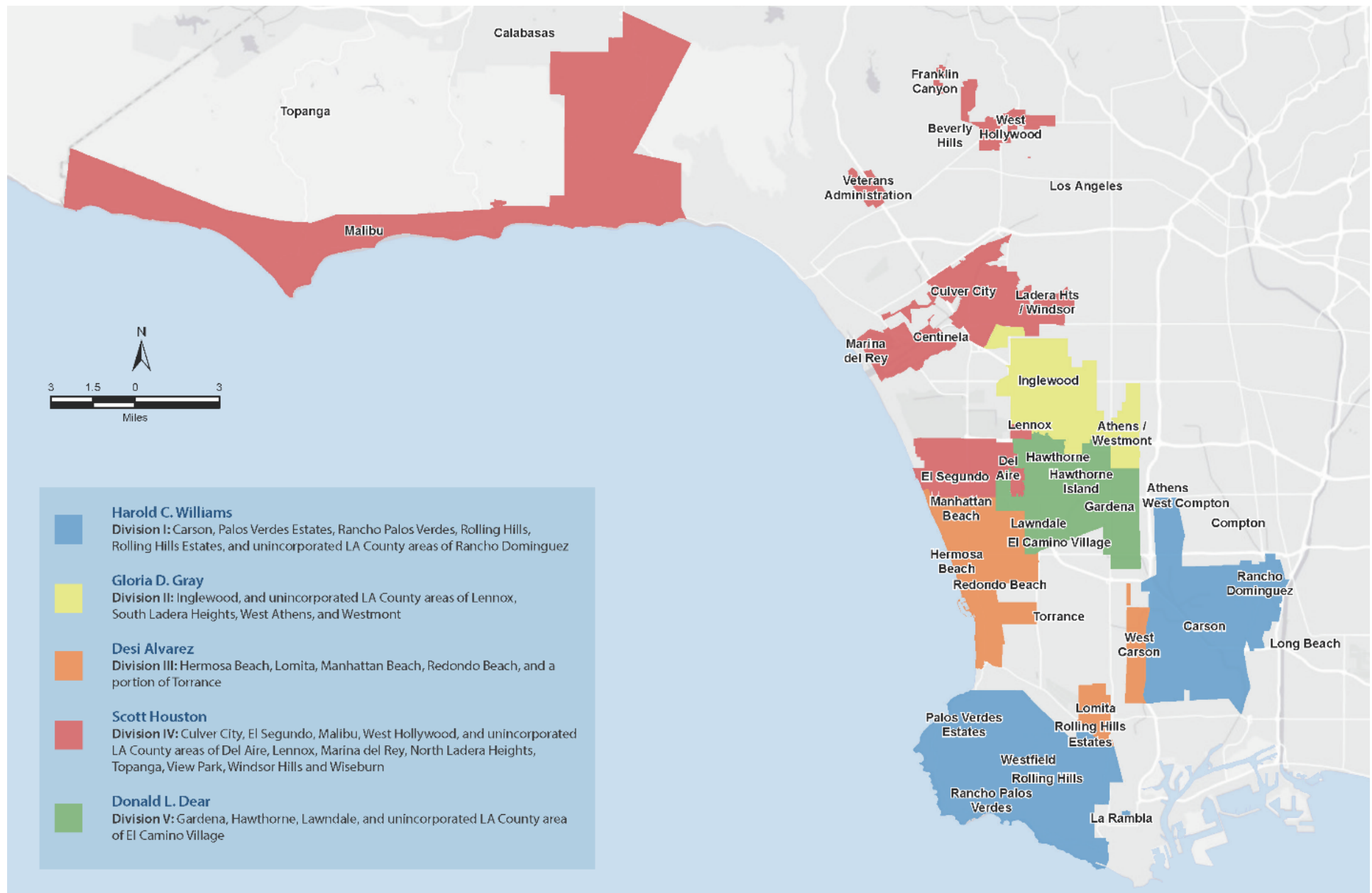
## Service Area

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



**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



*2020 Urban Water Management Plan*

Update for Retailers

March 4, 2021

[www.westbasin.org](http://www.westbasin.org)





## 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:**

### 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

### 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

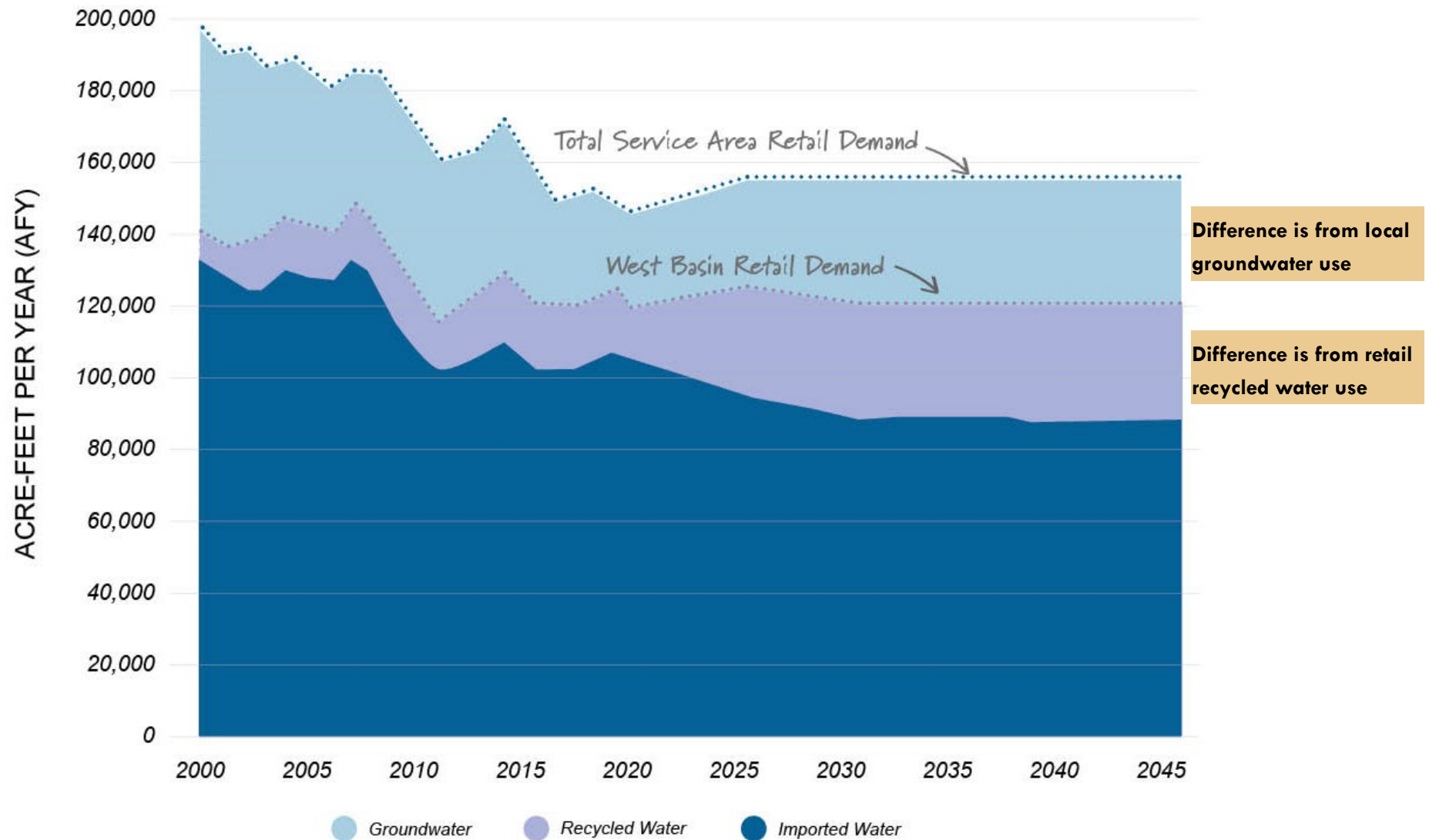
### West Basin potable demand

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
<b>Total</b>	<b>20,034</b>	<b>20,000</b>	<b>29,000</b>	<b>39,000</b>	<b>44,600</b>	<b>44,600</b>

## 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.





West Basin's Conservation Program  
Promotes Drought Tolerant Landscaping





## 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 educator's 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



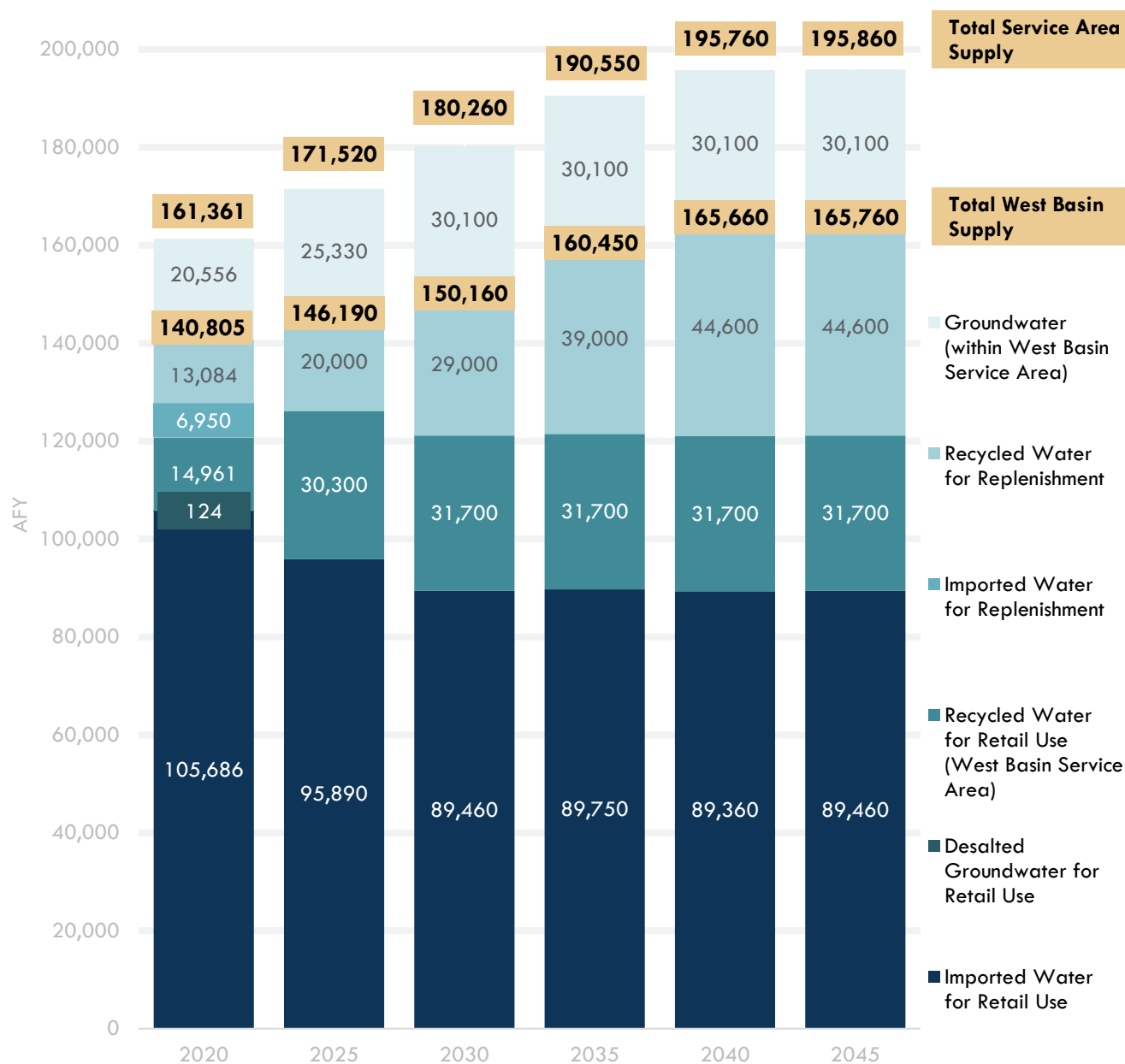
## Water Supplies

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



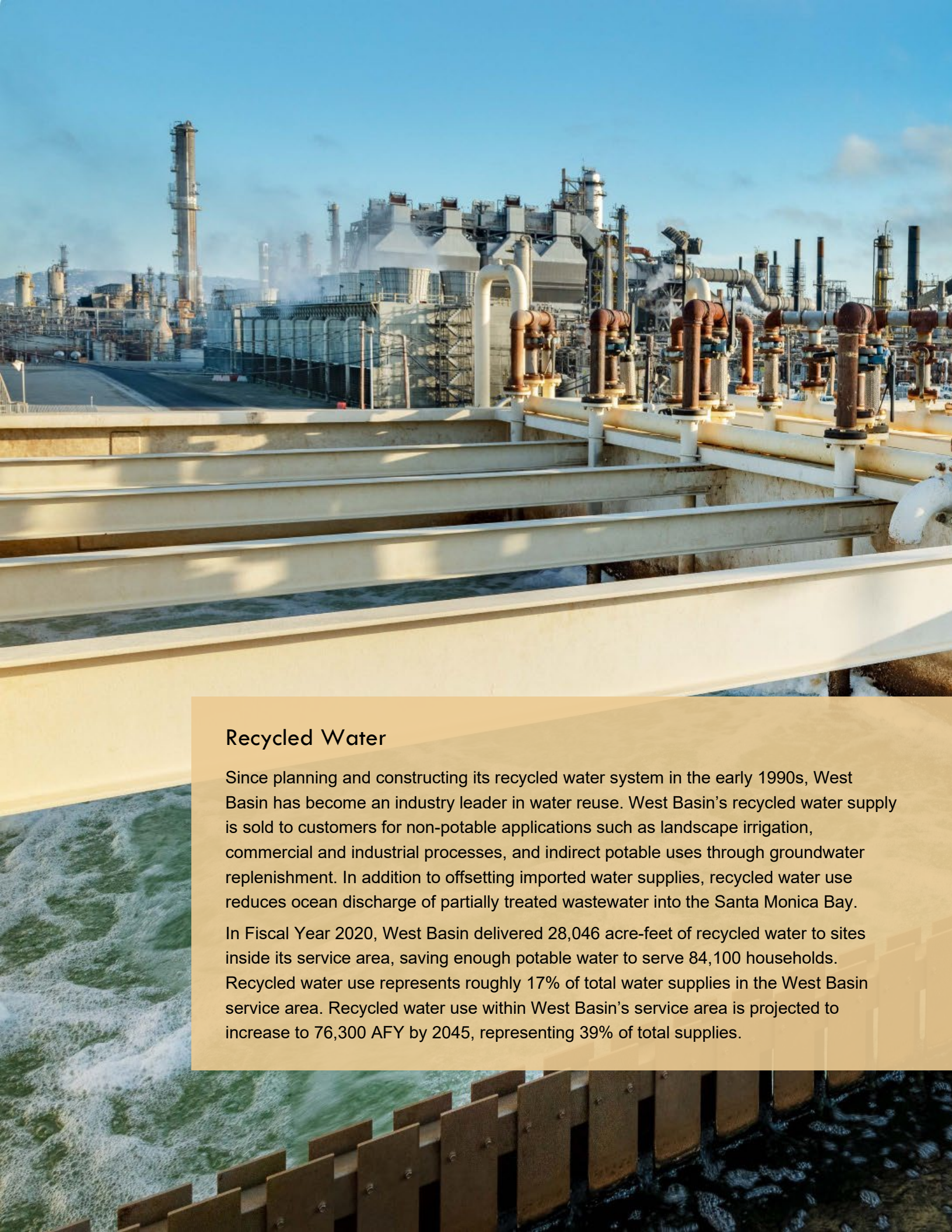


## Imported Water

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 levels.



## 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.

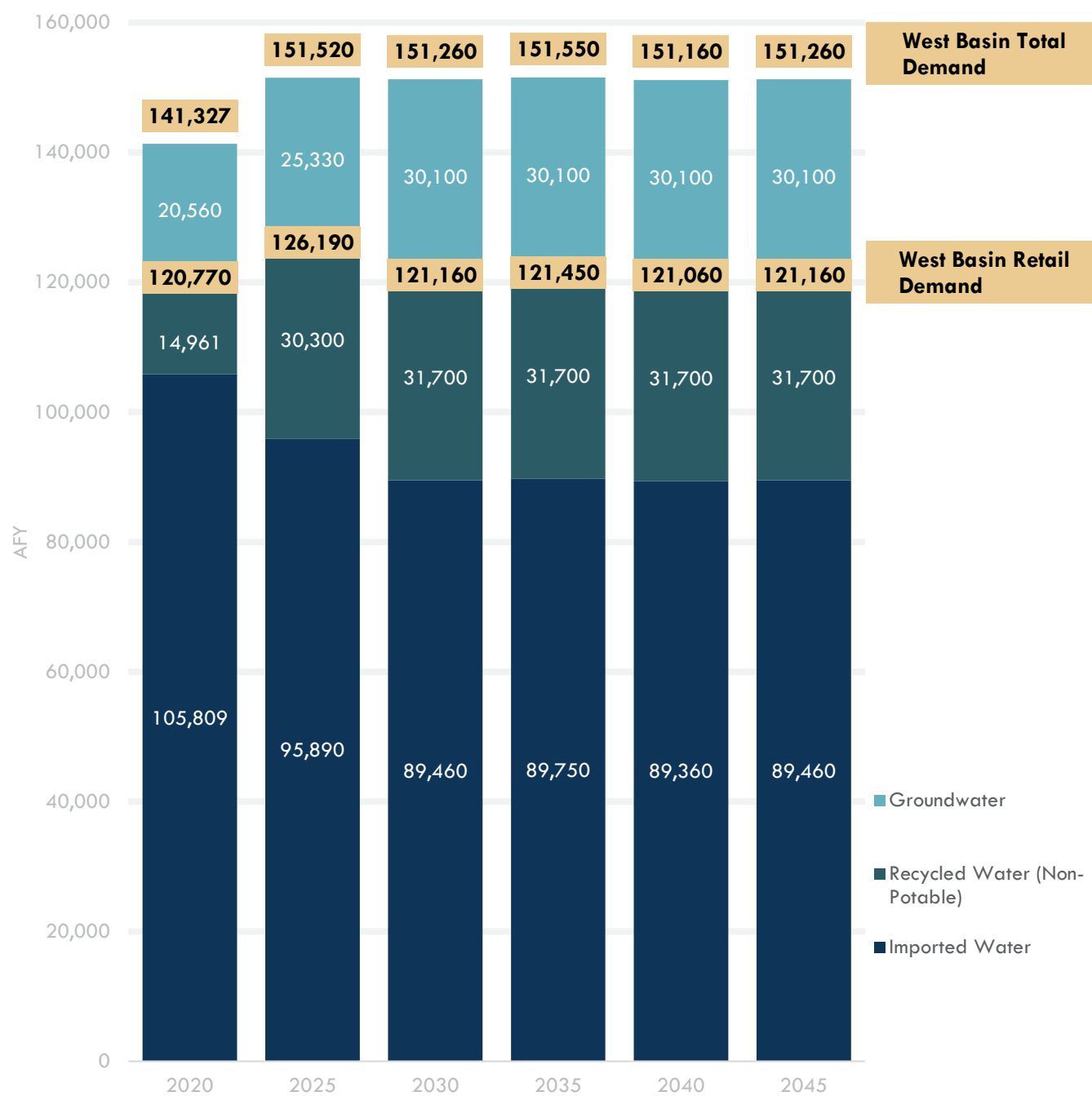
*Metropolitan projects the ability to meet projected West Basin imported water demands under normal year, single-dry year, and multiple-dry year conditions (Metropolitan Water District of Southern California, May 2021).*

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.

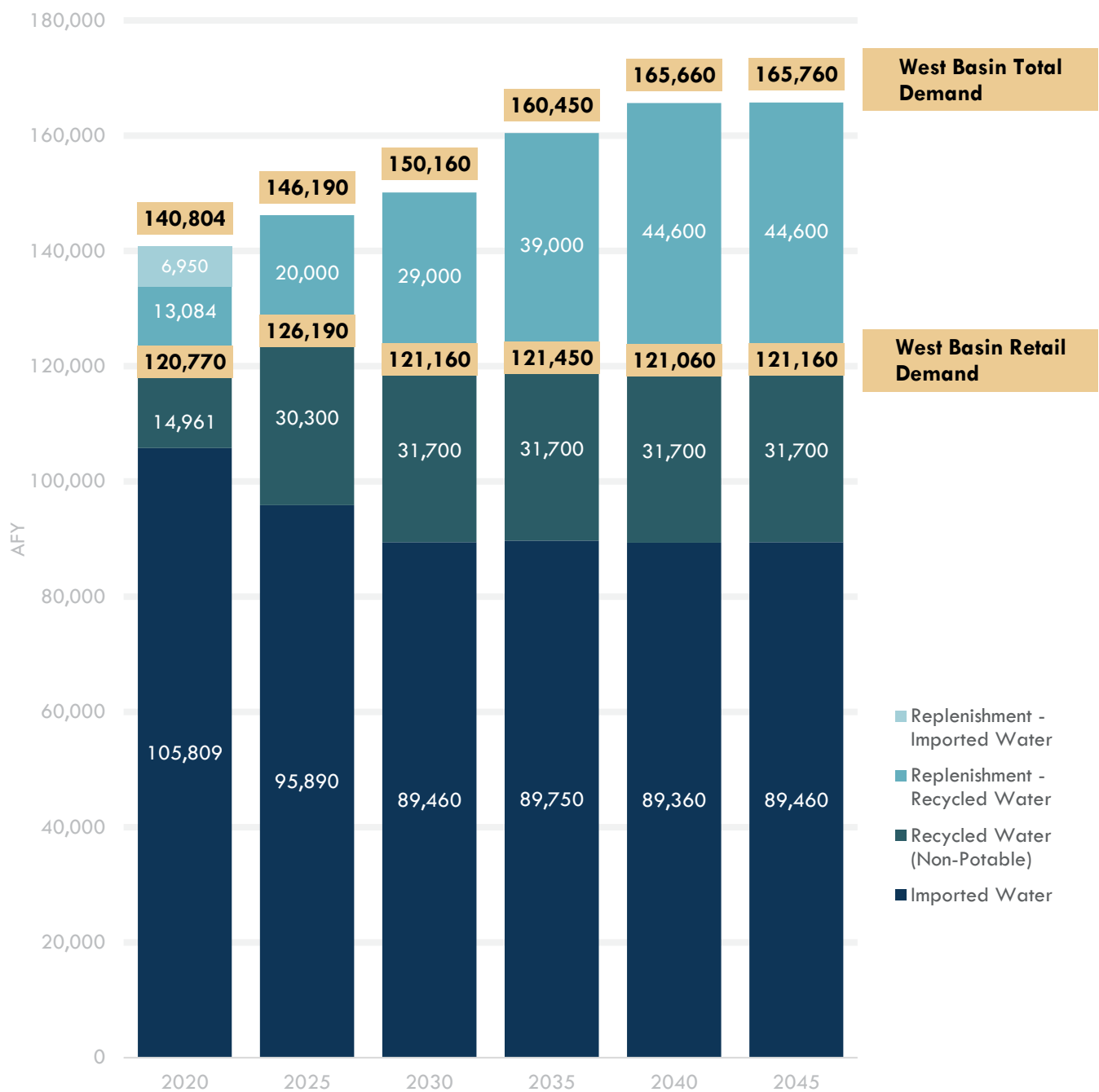
Figure ES-5: West Basin Service Area Retail Supply Projections for Normal and Single-Dry Years



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.

# 1

## URBAN WATER MANAGEMENT PLAN

# 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. 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.



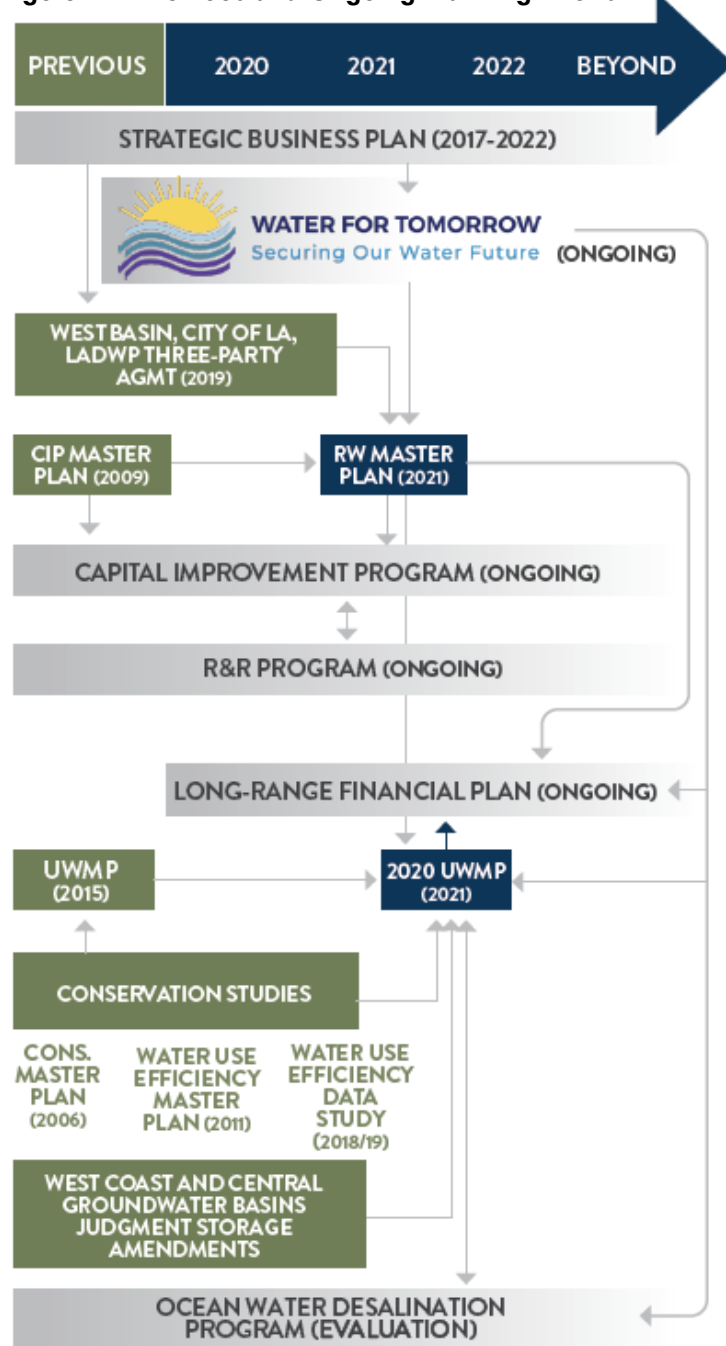
### 1.3 UWMPs in Relation to Other Efforts

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.

**Figure 1-1. Previous and Ongoing Planning Efforts**



## 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 police 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.

# 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.

### IN THIS SECTION

- Planning Basis
- Coordination and Outreach
- Notices

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.



## 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

**County Water District**

- Los Angeles County Waterworks District No. 29

**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

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](http://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
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



# 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

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



**Gloria D. Gray**  
Division II

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



**Desi Alvarez**  
Division III

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



**Scott Houston**  
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

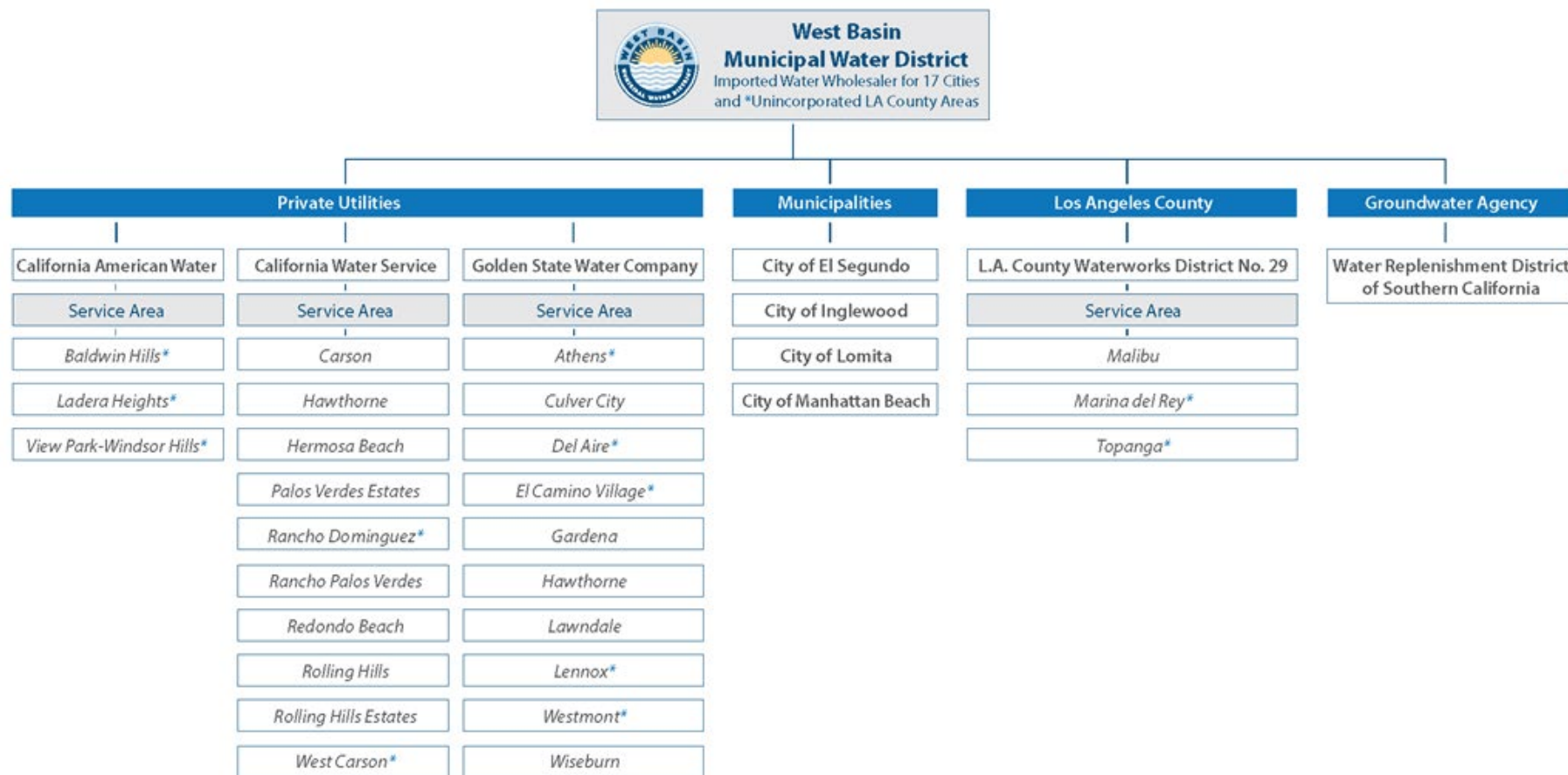


**Donald L. Dear**  
Division V

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

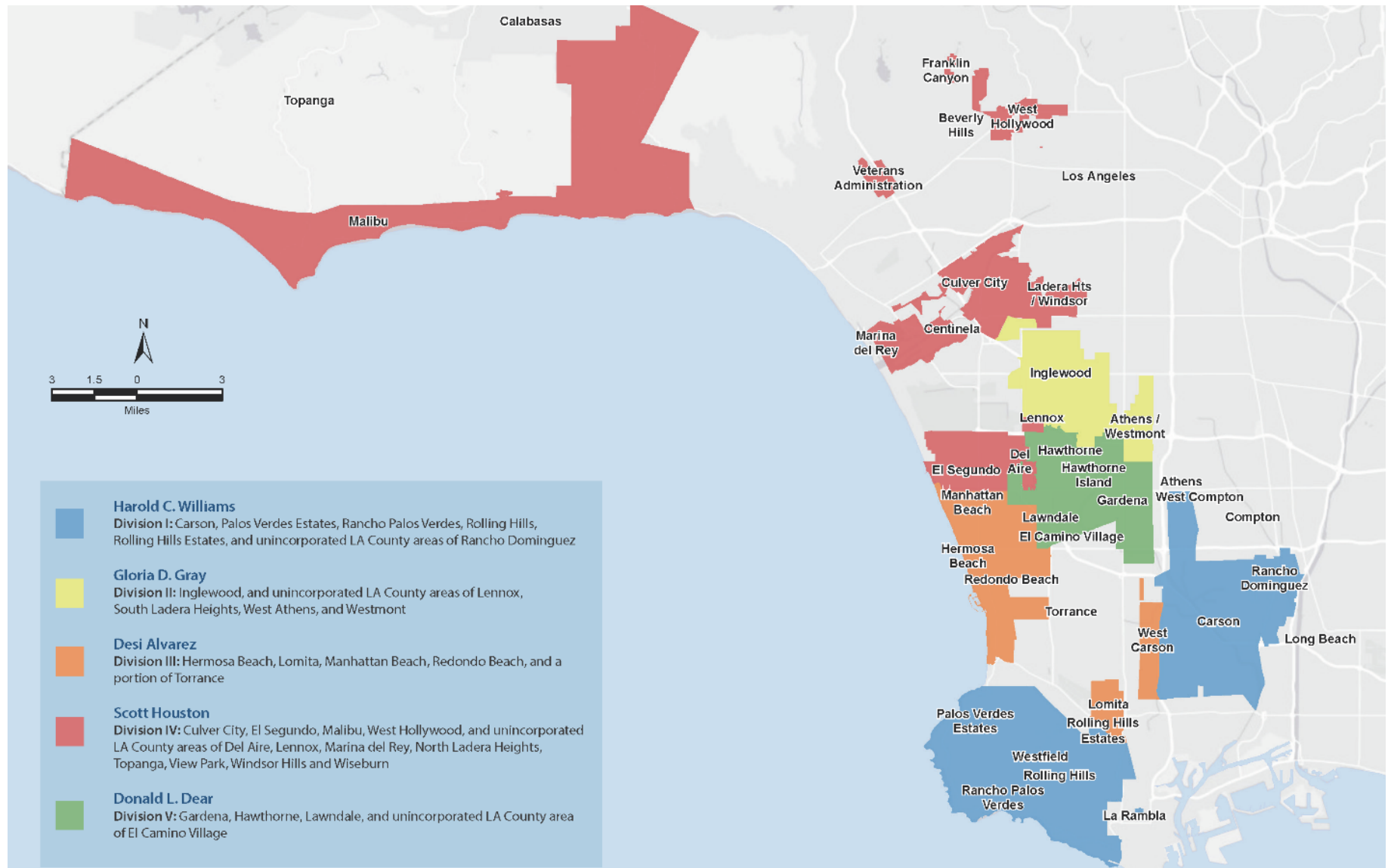


Figure 3-2. West Basin Retail Agencies



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**.



Sacramento River Delta

### 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.<sup>1</sup> 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**.

<sup>1</sup><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.



# 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 including imported water and groundwater production
- Recycled Water

### **Groundwater replenishment demand**

- Imported water
- Recycled water

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.

### **IN THIS SECTION**

- Past and Current Water Use
- Projected Water Use

## 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

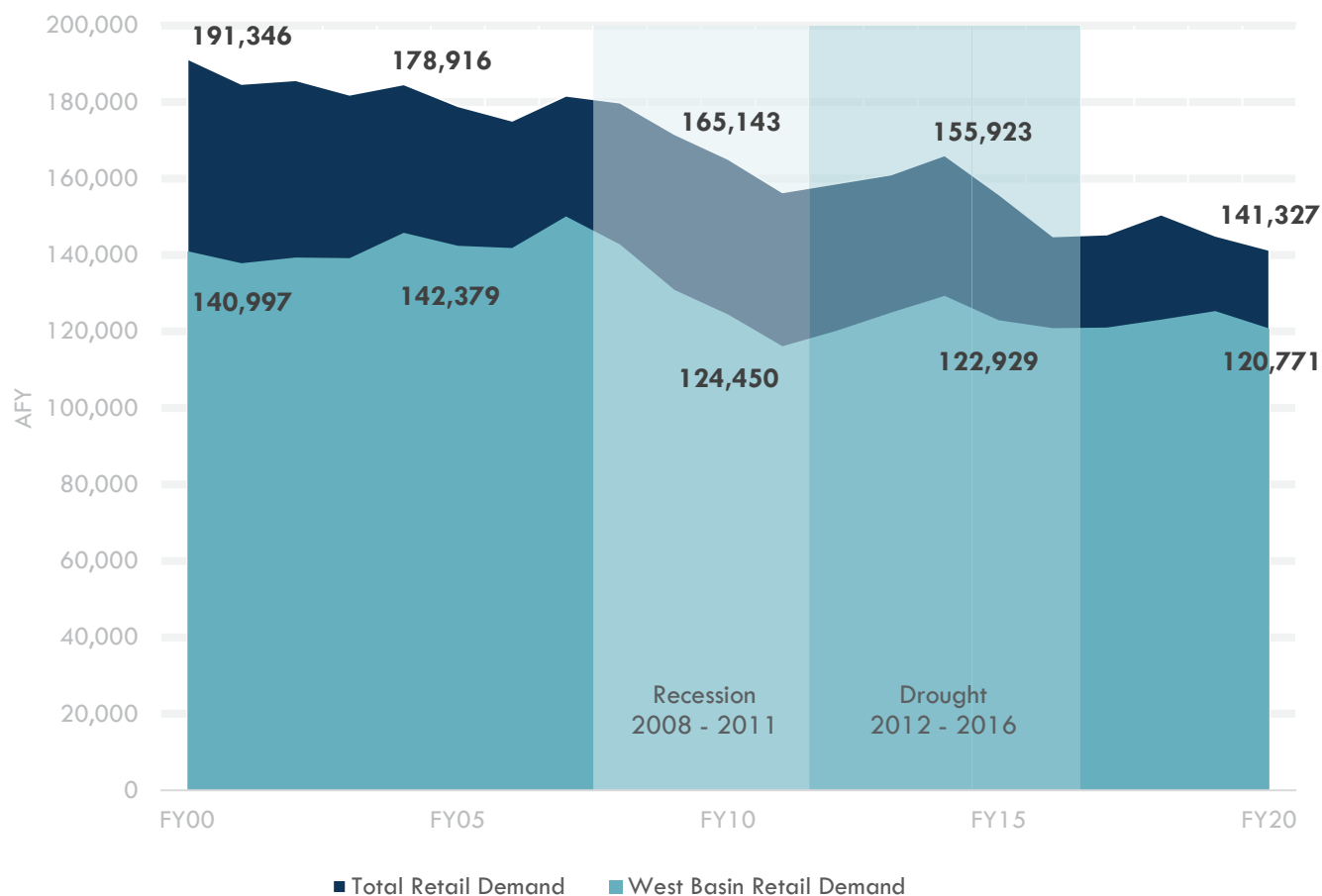
As shown in **Figure 4-1**, retail demand has declined by more than 25% over the last 20 years due to West Basin's significant water conservation efforts and efforts by local, regional, and State agencies. Residents in West Basin's service area display an ongoing commitment to reducing water use through 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 forecasts<sup>1</sup> 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.<sup>2</sup> 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.

---

<sup>1</sup>Per 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."

<sup>2</sup><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.

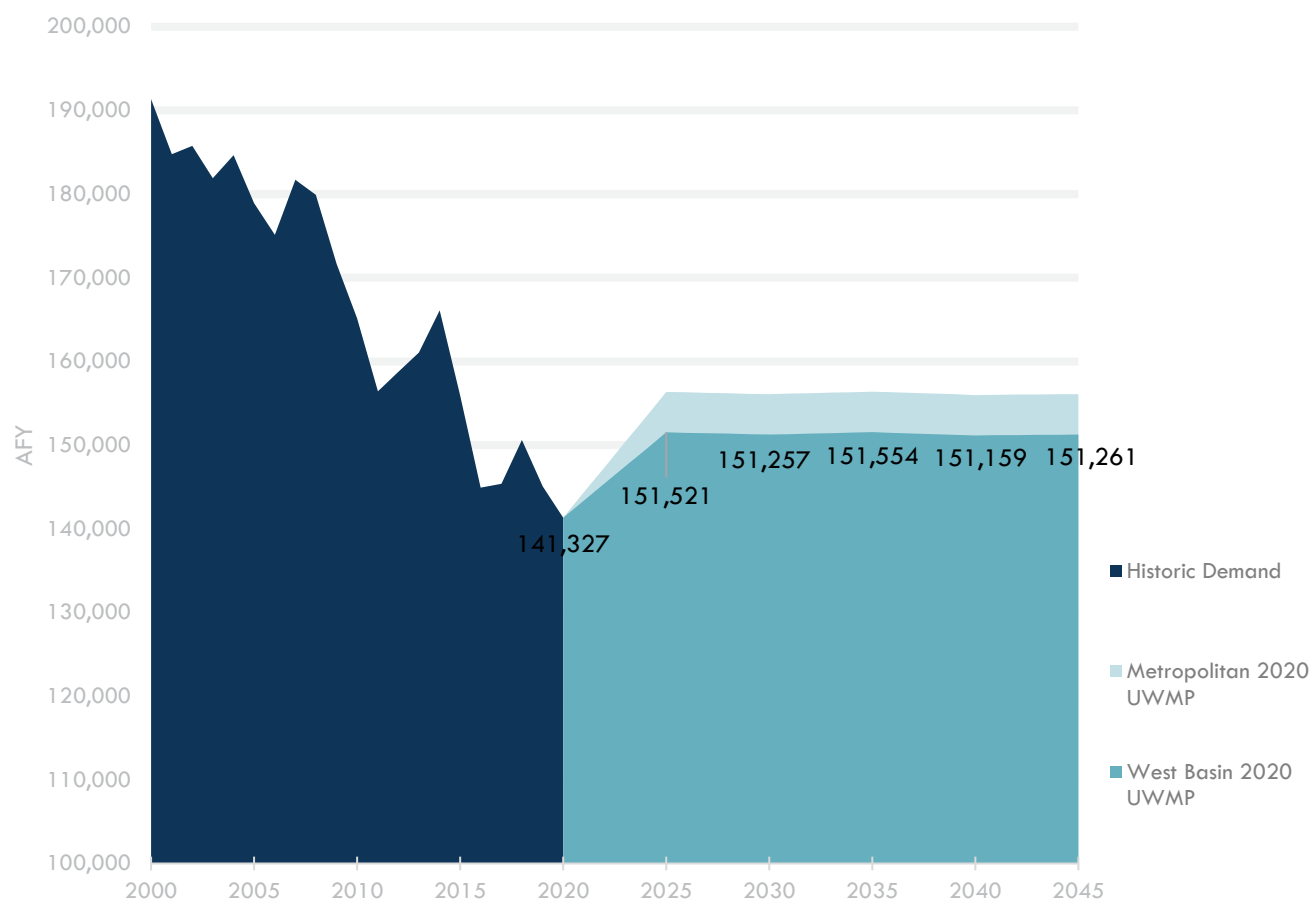
### **Pre-1990 savings**

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.

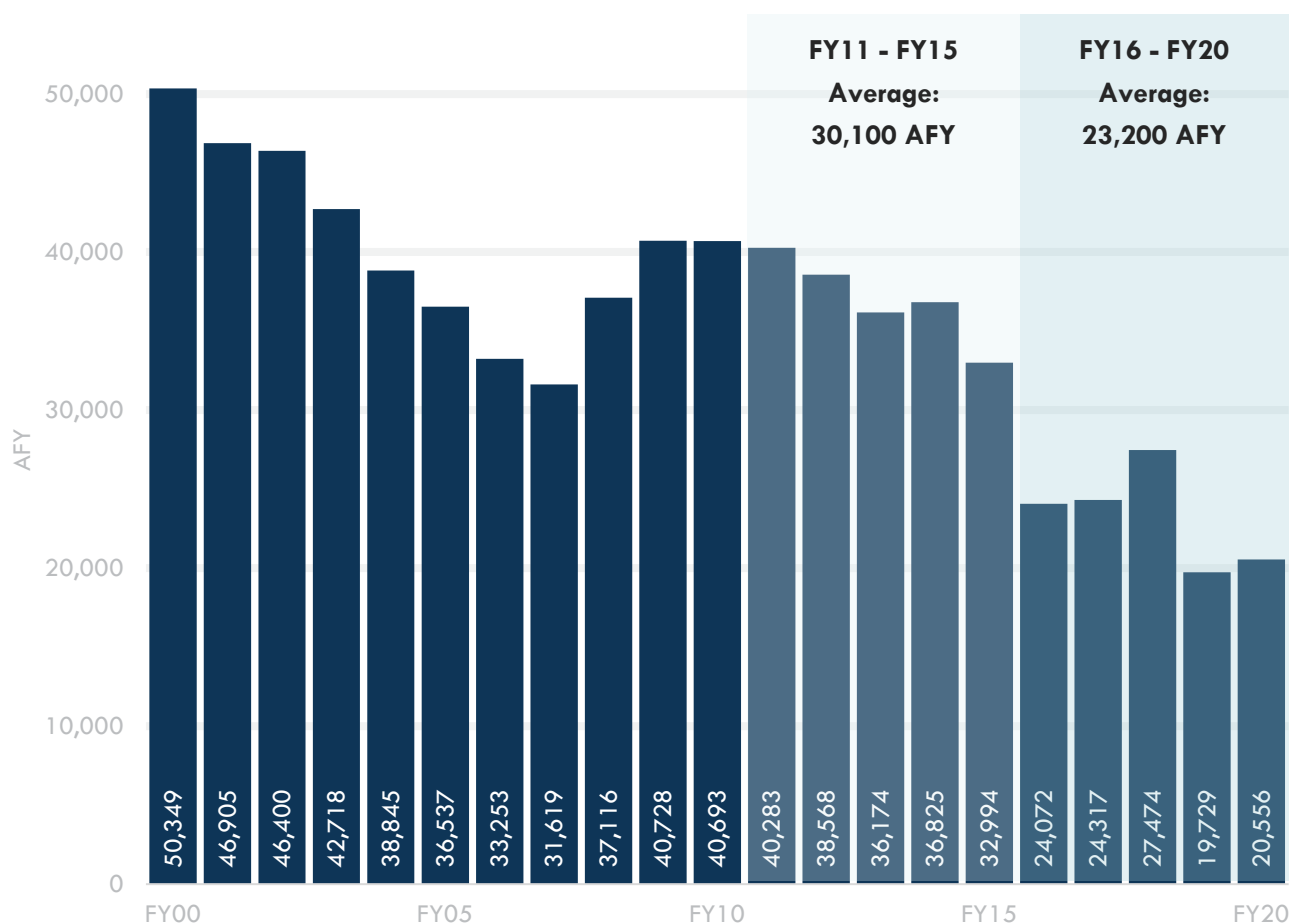
**Figure 4-2: West Basin Service Area Retail Demand Projections**



#### 4.1.2.5 Local Supply Projections

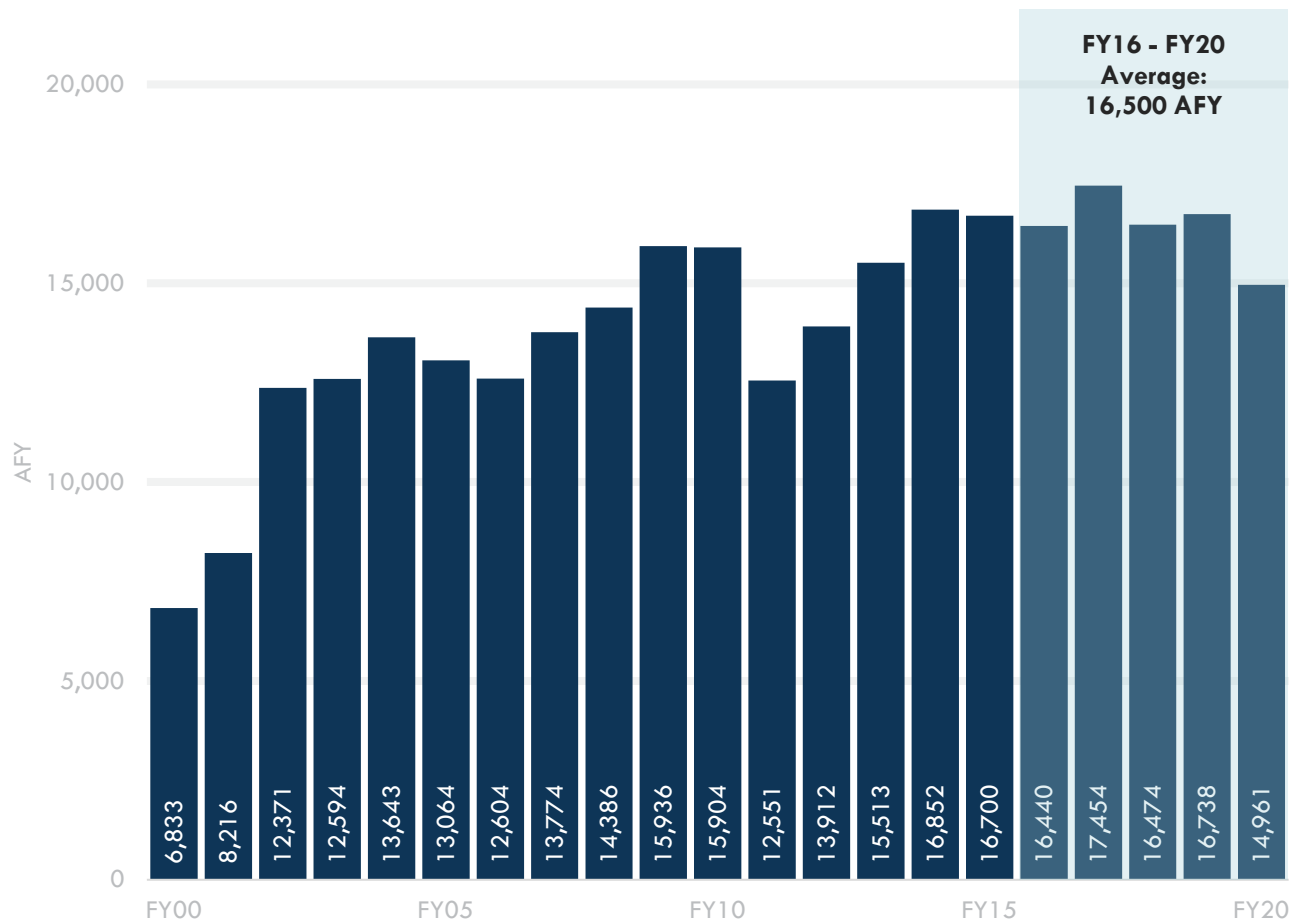
Most of the retail agencies in West Basin's service area produce groundwater to meet a portion of their demands. West Basin supplies the remainder through imported water and/or recycled water. As described in **Section 6.3** and shown in **Figure 4-3**, groundwater production in West Basin's service 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
<b>WEST BASIN NET RETAIL DEMAND<sup>1</sup></b>	<b>120,770</b>	<b>126,190</b>	<b>121,160</b>	<b>121,450</b>	<b>121,060</b>	<b>121,160</b>

<sup>1</sup>West 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.

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.

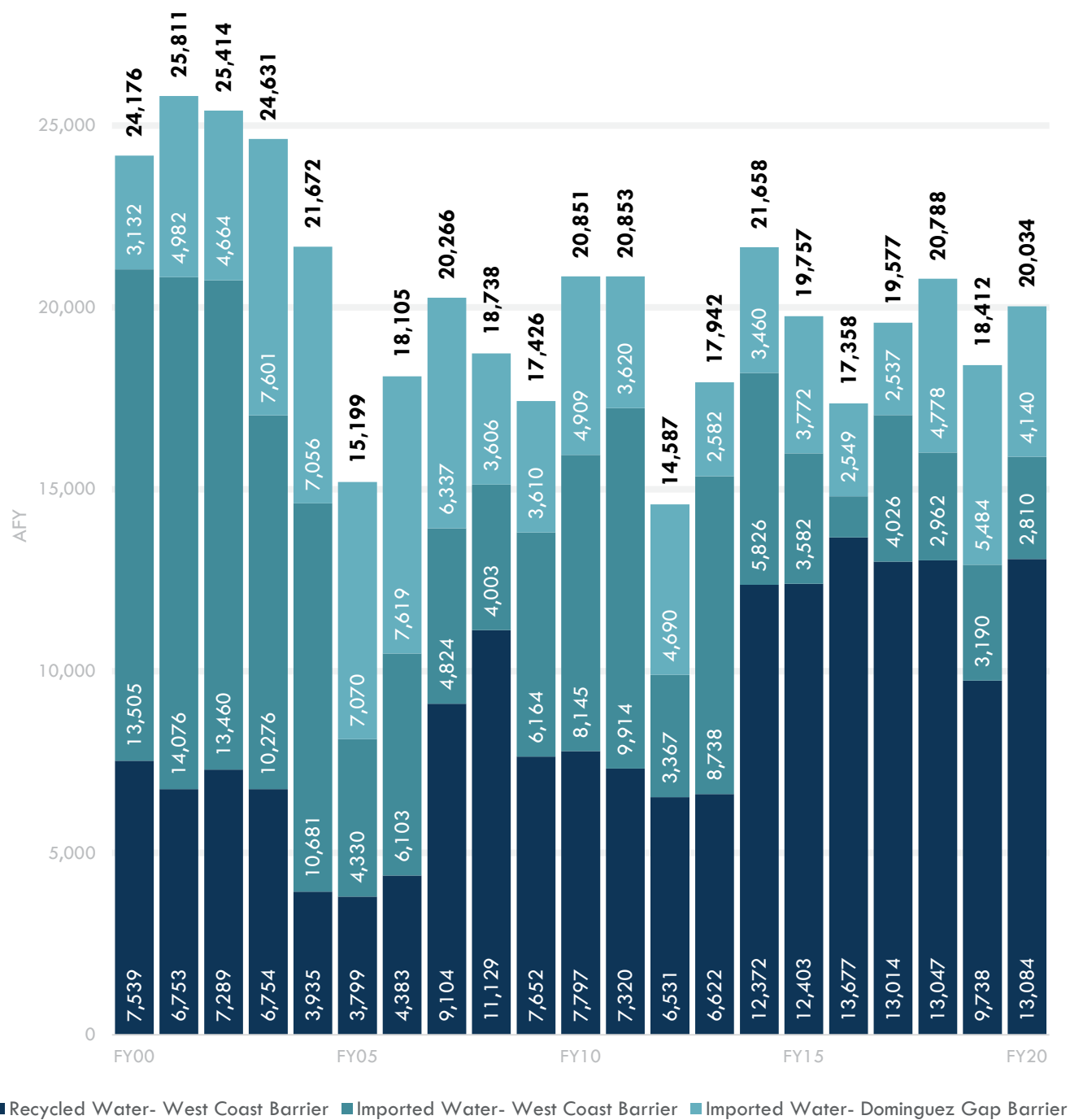
West Basin considered a range of replenishment demand scenarios and chose to include Scenario A from the West Basin RWMP, which assumes that total replenishment increases to 44,600 AFY from an extra 10 million gallons per day (MGD) of recycled water flows to the West Coast Basin Barrier and another 18 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
<b>TOTAL:</b>	<b>20,034</b>	<b>20,000</b>	<b>29,000</b>	<b>39,000</b>	<b>44,600</b>	<b>44,600</b>

Figure 4-5: Historic West Basin Replenishment Supplies



### 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
<b>TOTAL DEMANDS</b>	<b>140,804</b>	<b>146,190</b>	<b>150,160</b>	<b>160,450</b>	<b>165,660</b>	<b>165,760</b>

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.**

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. 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).



# 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.

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.

### IN THIS SECTION

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

## 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.



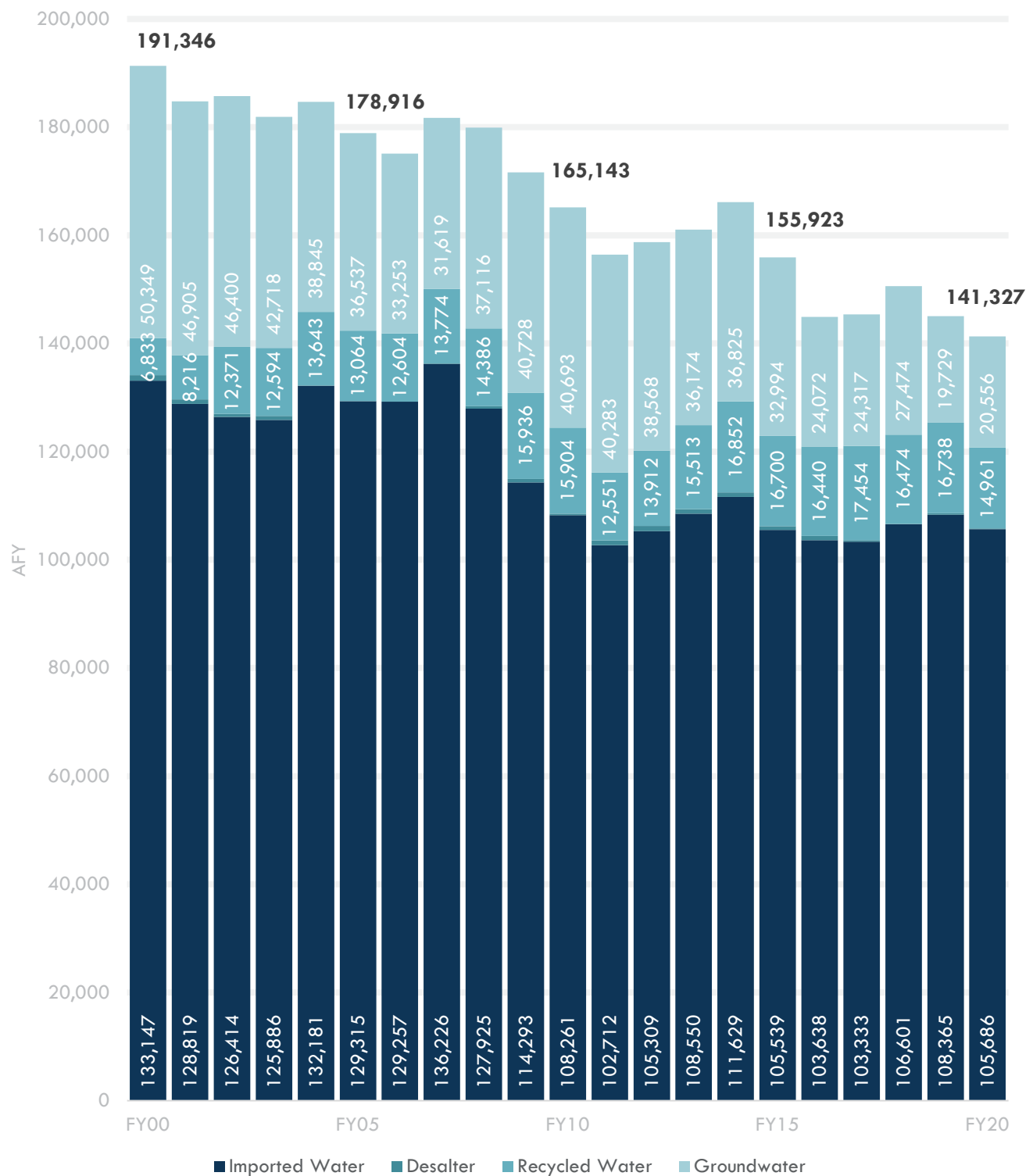
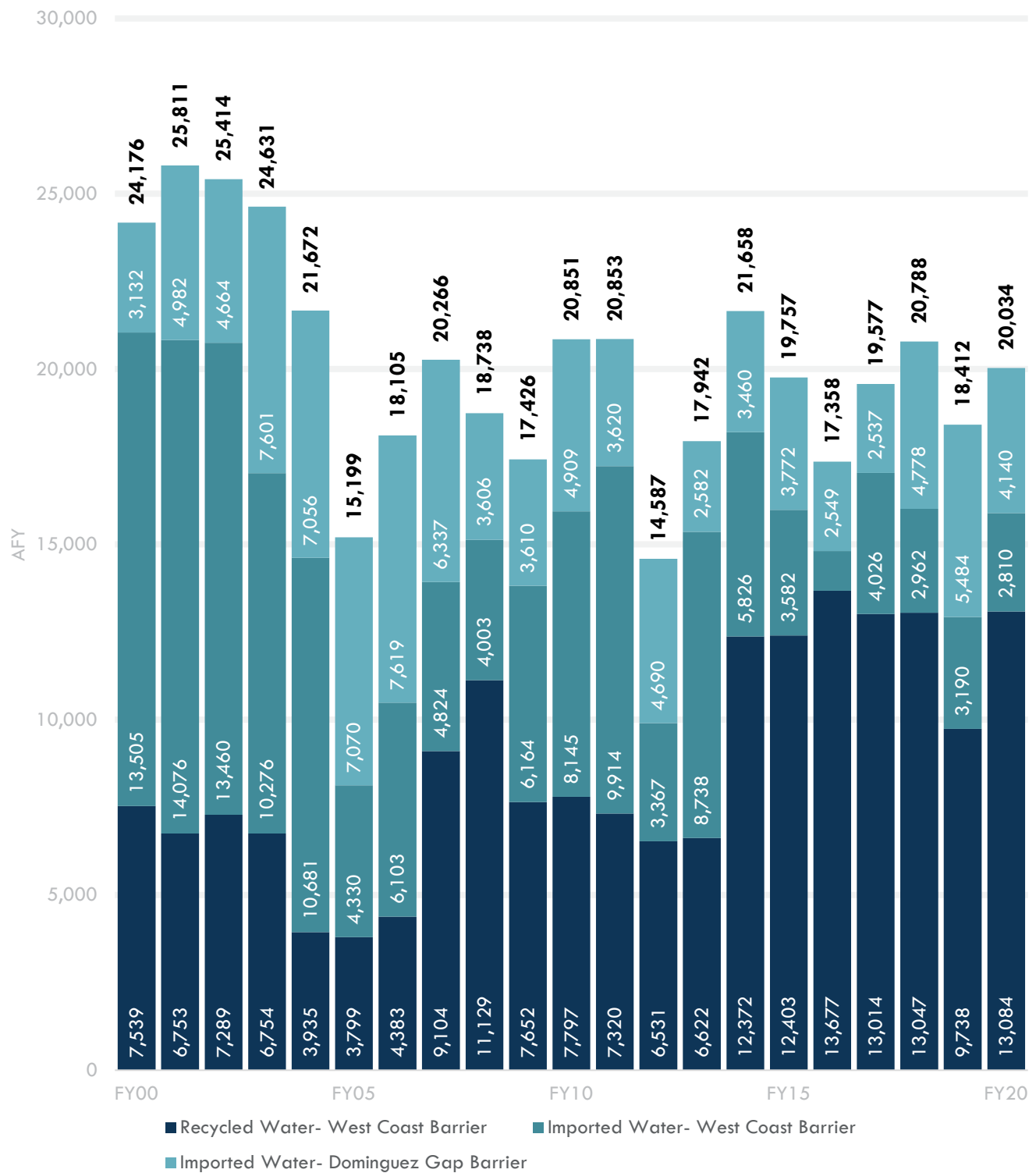
**Figure 6-1. Historic West Basin Service Area Retail Demand by Water Type**



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).



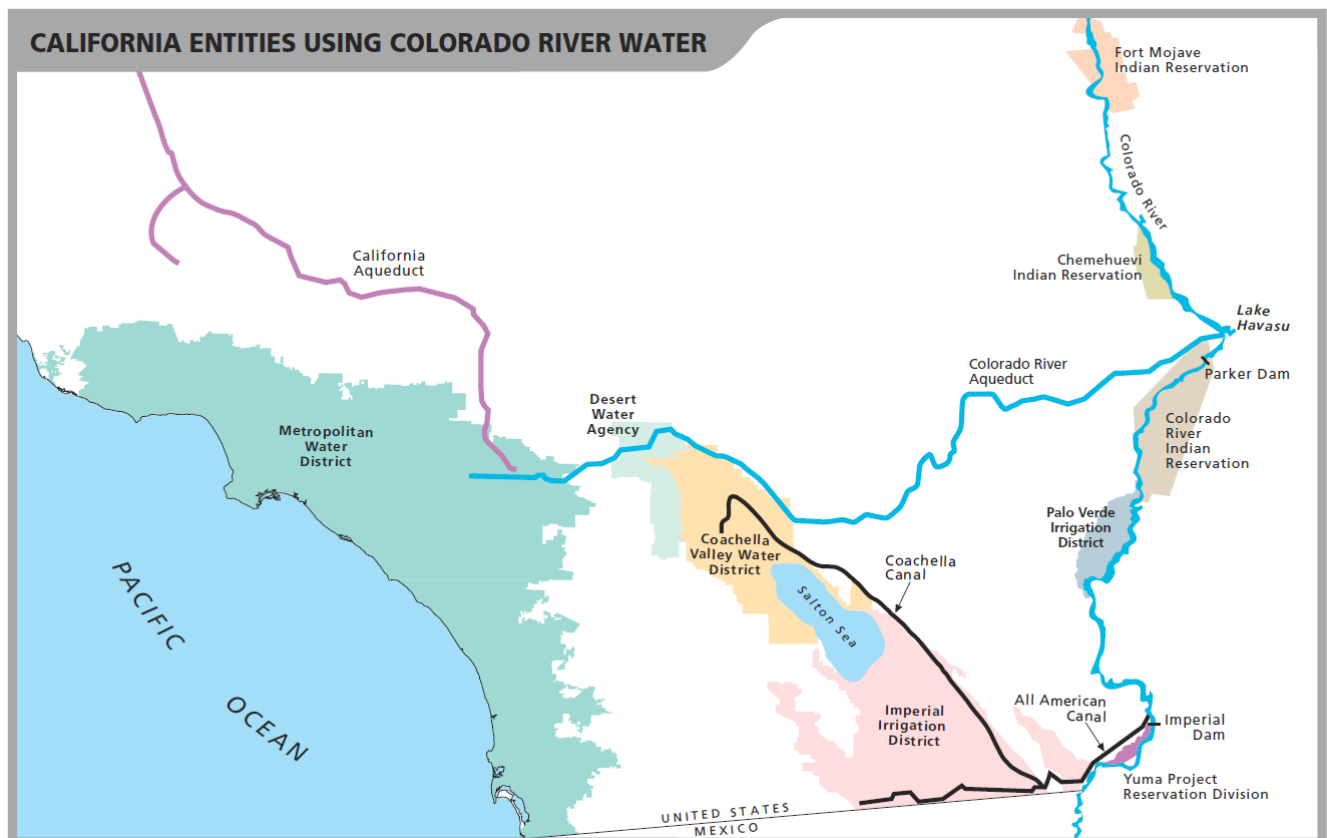
### 6.2.1 Colorado River Supplies

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**

<b>PUMPER</b>	<b>BASIN</b>	<b>ADJUDICATED RIGHTS</b>
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
<b>WEST BASIN RETAIL AGENCIES SUBTOTAL</b>		<b>40,415</b>
Non-Retail Water Pumpers, within West Basin Service Area	West Coast Basin	10,435
<b>WEST BASIN SERVICE AREA SUBTOTAL</b>		<b>50,850</b>

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

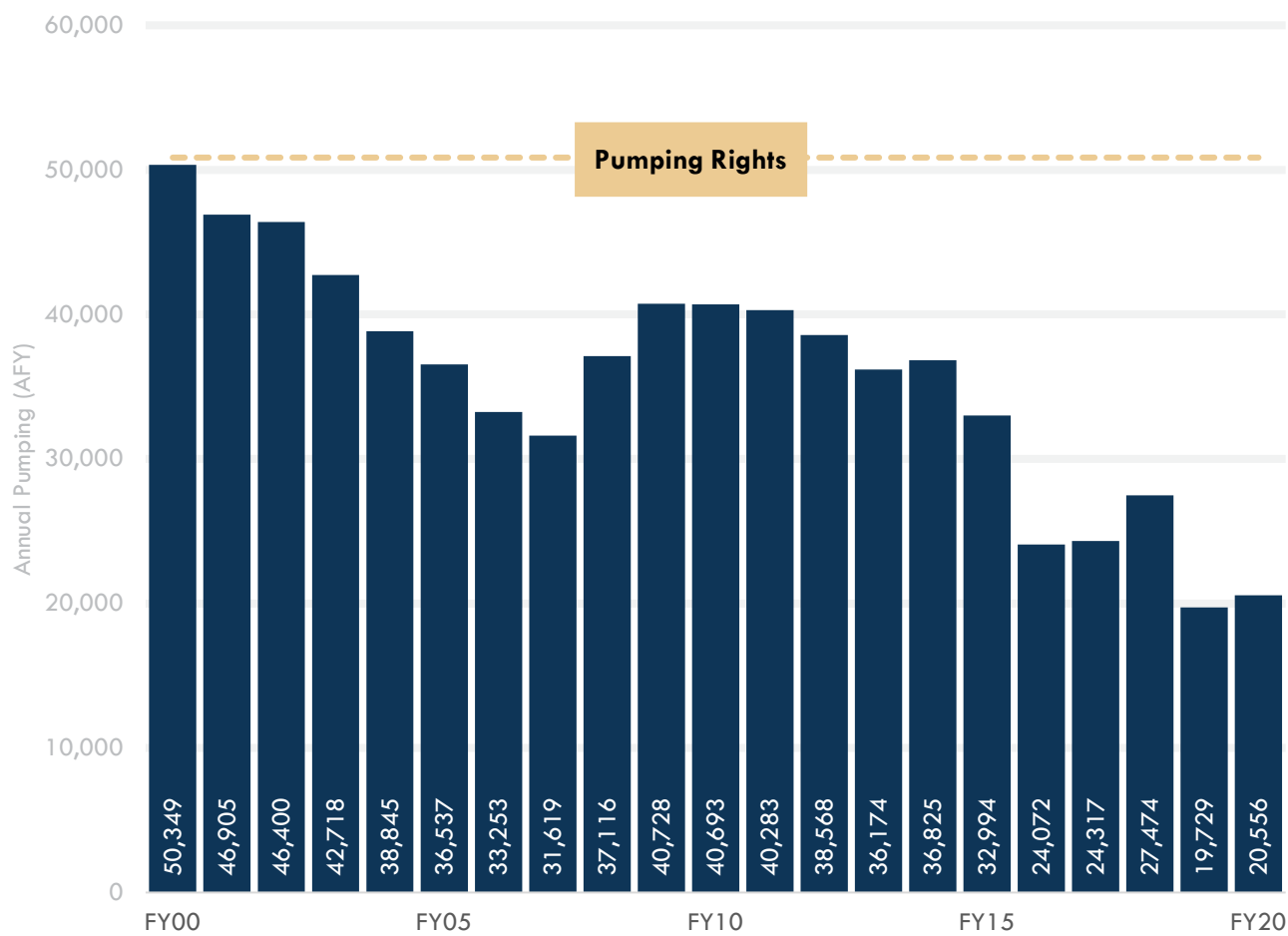
The volume of groundwater pumped and used within West Basin's service area by groundwater pumpers in each alluvial for the last five years is shown in **Table 6-2**. The total historic pumping since 1990 within West Basin's service area and by its retail agencies compared to the pumping rights is shown 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
<b>TOTAL:</b>		<b>24,072</b>	<b>24,317</b>	<b>27,474</b>	<b>19,729</b>	<b>20,556</b>

**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**

<b>BASIN</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>
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
<b>TOTAL:</b>	<b>26,667</b>	<b>30,100</b>	<b>30,100</b>	<b>30,100</b>	<b>30,100</b>

## 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

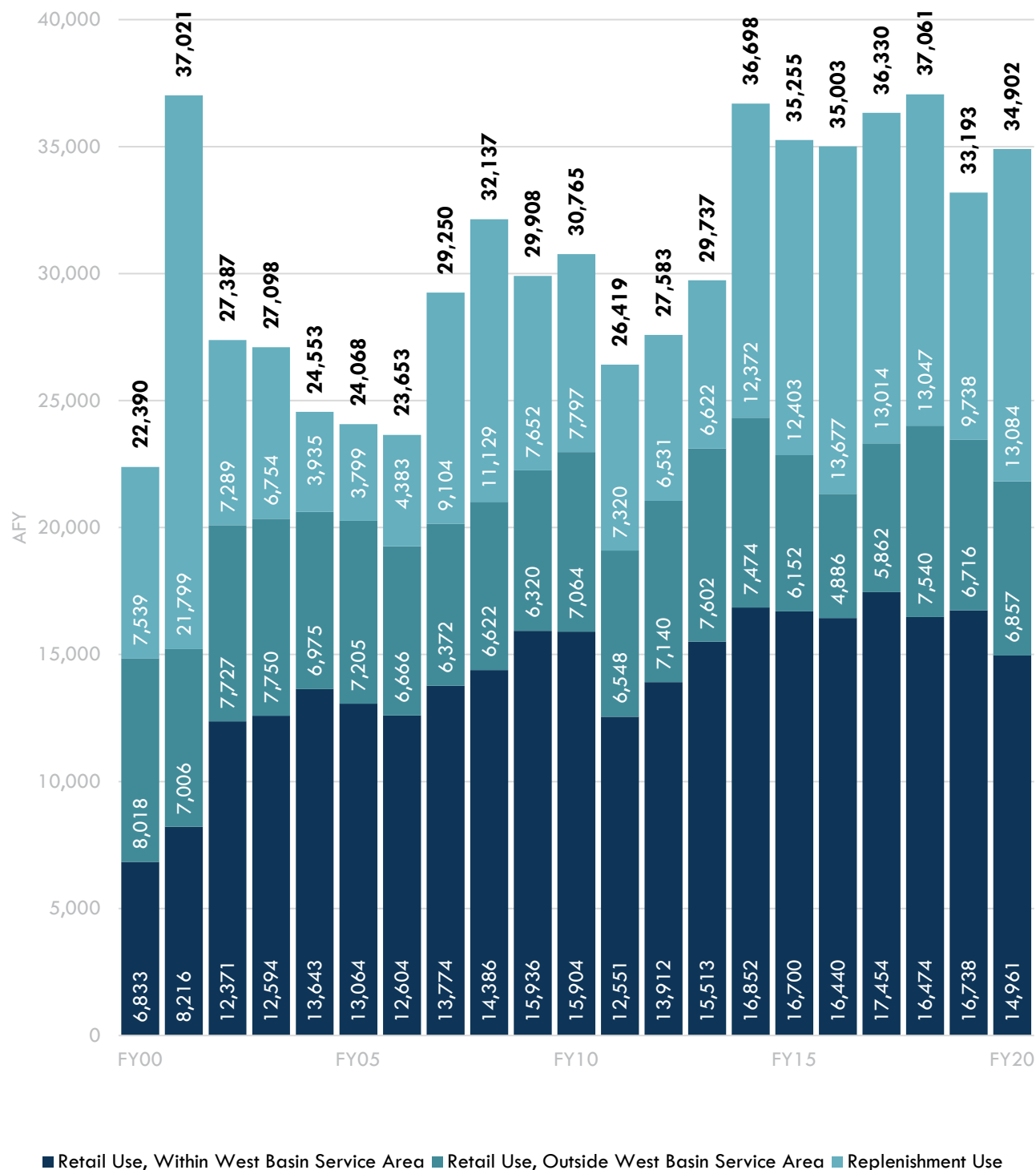
This is secondary-treated wastewater and tertiary disinfected recycled water that has undergone microfiltration and two passes through RO for high-pressure boiler feed water.



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





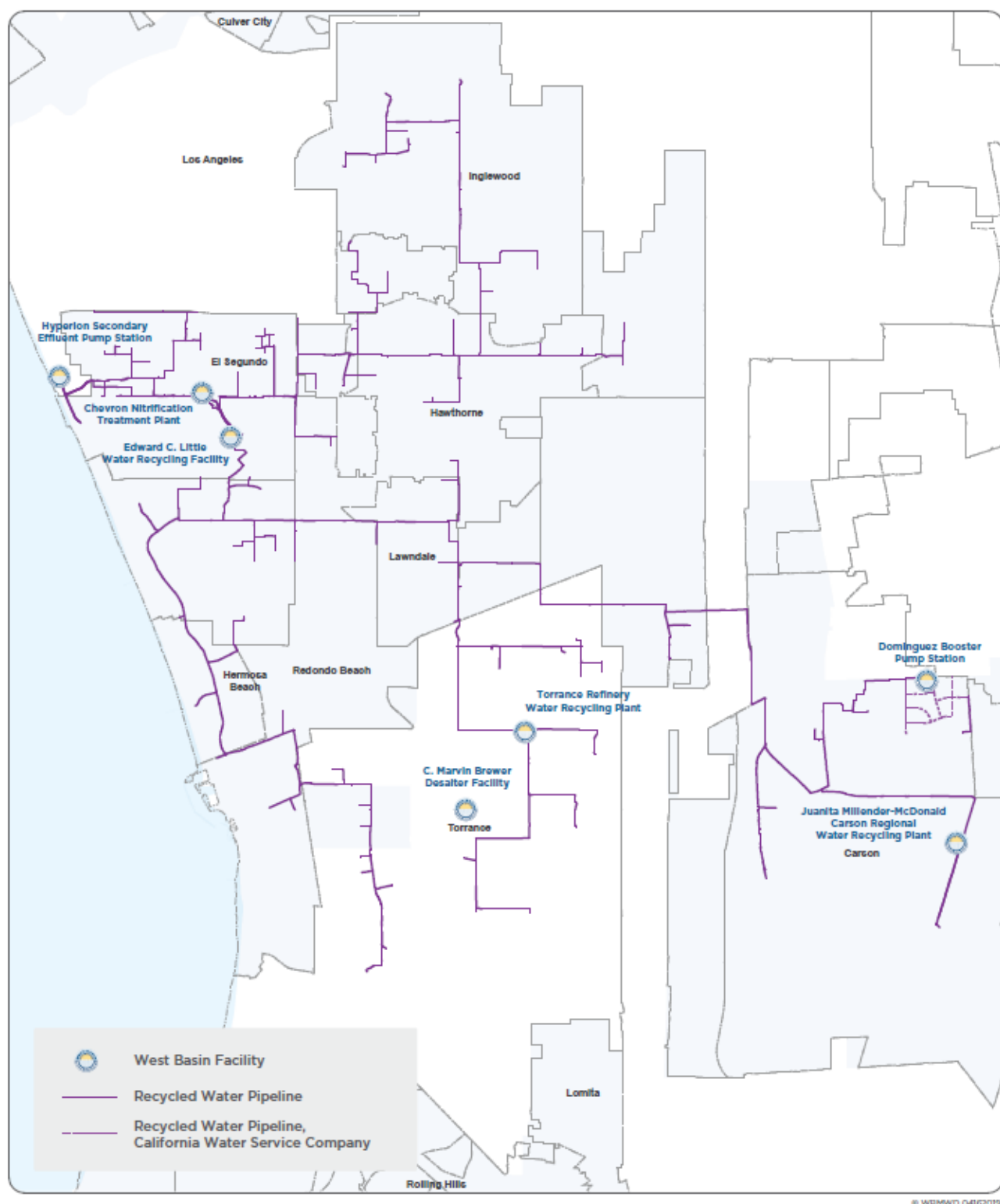
### 6.4.1 Recycled Water System

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)



© WBMWD 04162019

## 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
<b>TOTAL:</b>	<b>45,285</b>	<b>34,903</b>

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 WHOLESALE	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
<b>TOTAL:</b>		<b>28,045</b>	<b>50,300</b>	<b>60,700</b>	<b>70,700</b>	<b>76,300</b>	<b>76,300</b>

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 21<sup>st</sup> 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.

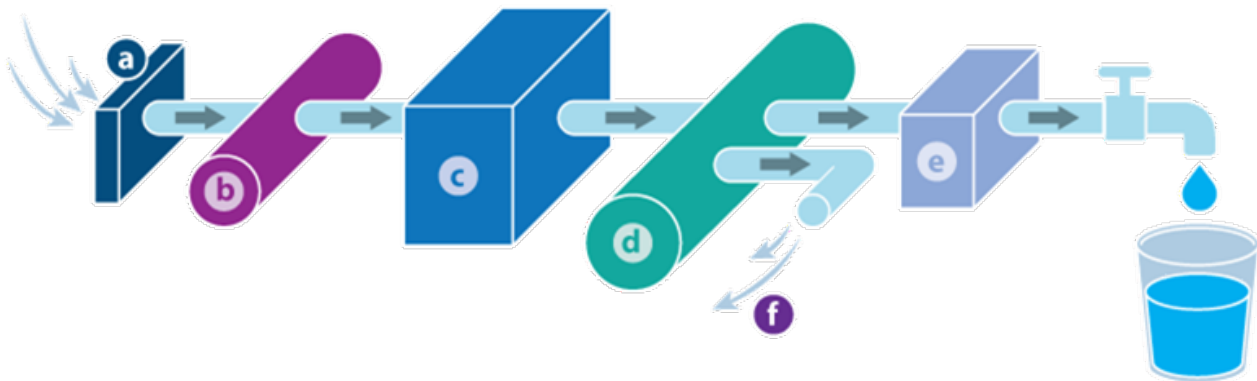
#### e. Post Treatment

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><b>The pilot study demonstrated the viability of ocean water desalination for West Basin</b>, 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>



YEAR & PROJECT	DESCRIPTION
<b>2010 – 2014 OCEAN WATER DESALINATION DEMONSTRATION FACILITY</b>	<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><b>The results from the Desal Demo Facility provided a foundation for development of a full-scale design, permitting, and operations approach.</b></p>
<b>2013 OCEAN WATER DESALINATION PROGRAM MASTER PLAN</b>	<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).</p> <p><b>The Program Master Plan included:</b></p> <ul style="list-style-type: none"> <li>Conceptual System Design and Program Requirements</li> <li>Power Supply Development</li> <li>Project Entitlements and Acquisition</li> <li>Environmental Review Plan</li> <li>Project Permitting Plan</li> <li>Facility Operations and Maintenance Plan</li> <li>Project Costs and Funding Plan</li> </ul>
<b>2014 WATER QUALITY INTEGRATION STUDY</b>	<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>
<b>2015 SUBSURFACE INTAKE STUDY</b>	<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>
<b>2016 BIOFOULING AND CORROSION STUDY</b>	<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>
<b>2018 DRAFT ENVIRONMENTAL IMPACT REPORT</b>	<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>
<b>2019 FINAL ENVIRONMENTAL IMPACT REPORT</b>	<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.

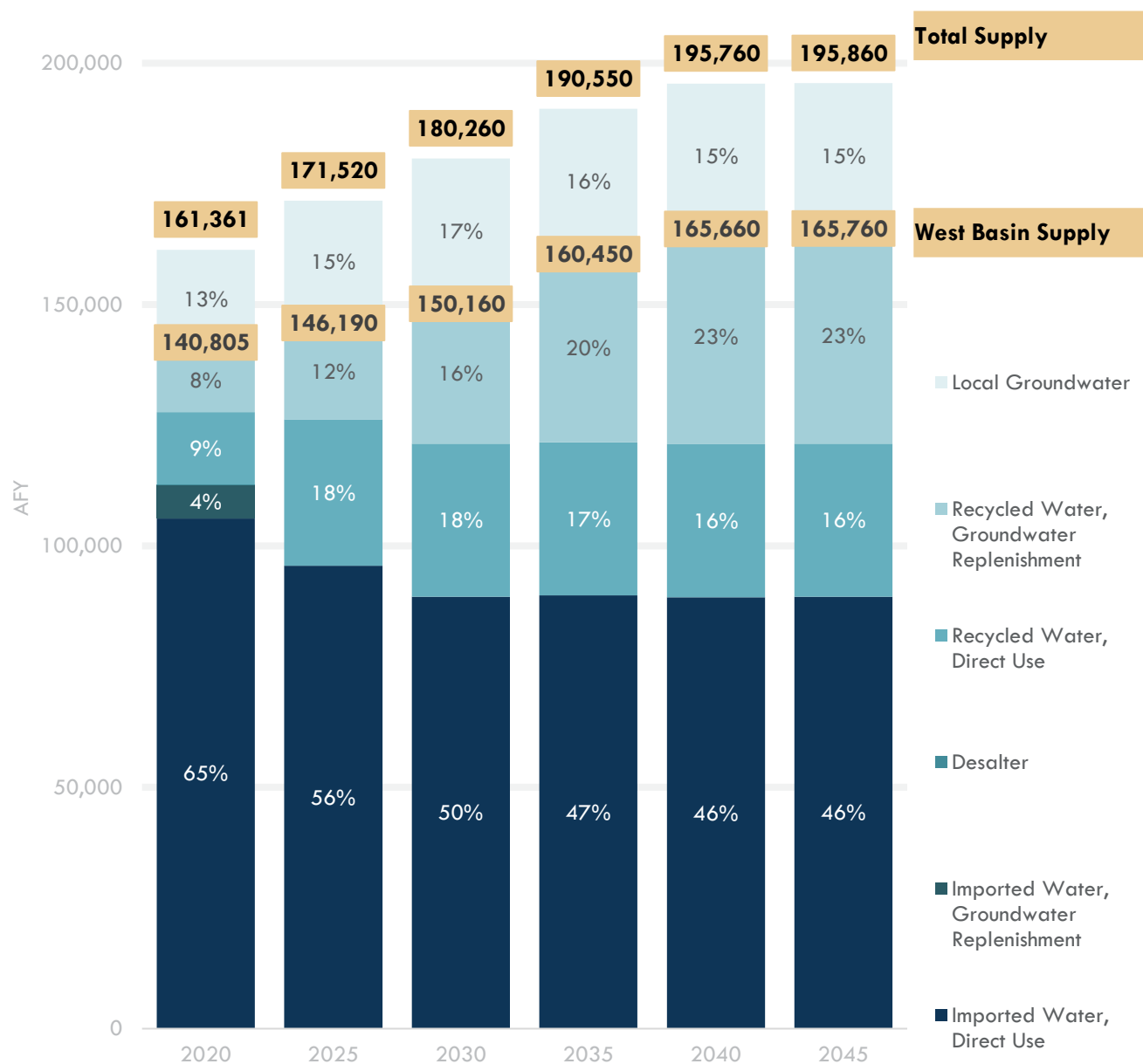
**Table 6-8. FY2020 Actual Water Supplies**

	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
<b>RETAIL SUBTOTAL:</b>		<b>120,771</b>
Replenishment - Recycled Water	Recycled Water	13,084
Replenishment - Imported Water	Drinking Water	6,950
<b>REPLENISHMENT SUBTOTAL:</b>		<b>20,034</b>
<b>SUPPLY TOTAL:</b>		<b>140,805</b>

**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
<b>WEST BASIN SUPPLY SUBTOTAL:</b>		<b>146,190</b>	<b>150,160</b>	<b>160,450</b>	<b>165,660</b>	<b>165,760</b>
Local Groundwater	Total volume extracted within West Basin's Service Area	25,330	30,100	30,100	30,100	30,100
<b>WEST BASIN SERVICE AREA SUPPLY TOTAL:</b>		<b>171,520</b>	<b>180,260</b>	<b>190,550</b>	<b>195,760</b>	<b>195,860</b>

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



Edward C. Little Water Recycling Facility



## URBAN WATER MANAGEMENT PLAN

# 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.

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.

### 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.

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](http://www.wrd.org) (Water Replenishment District of Southern California, 2021).

## 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

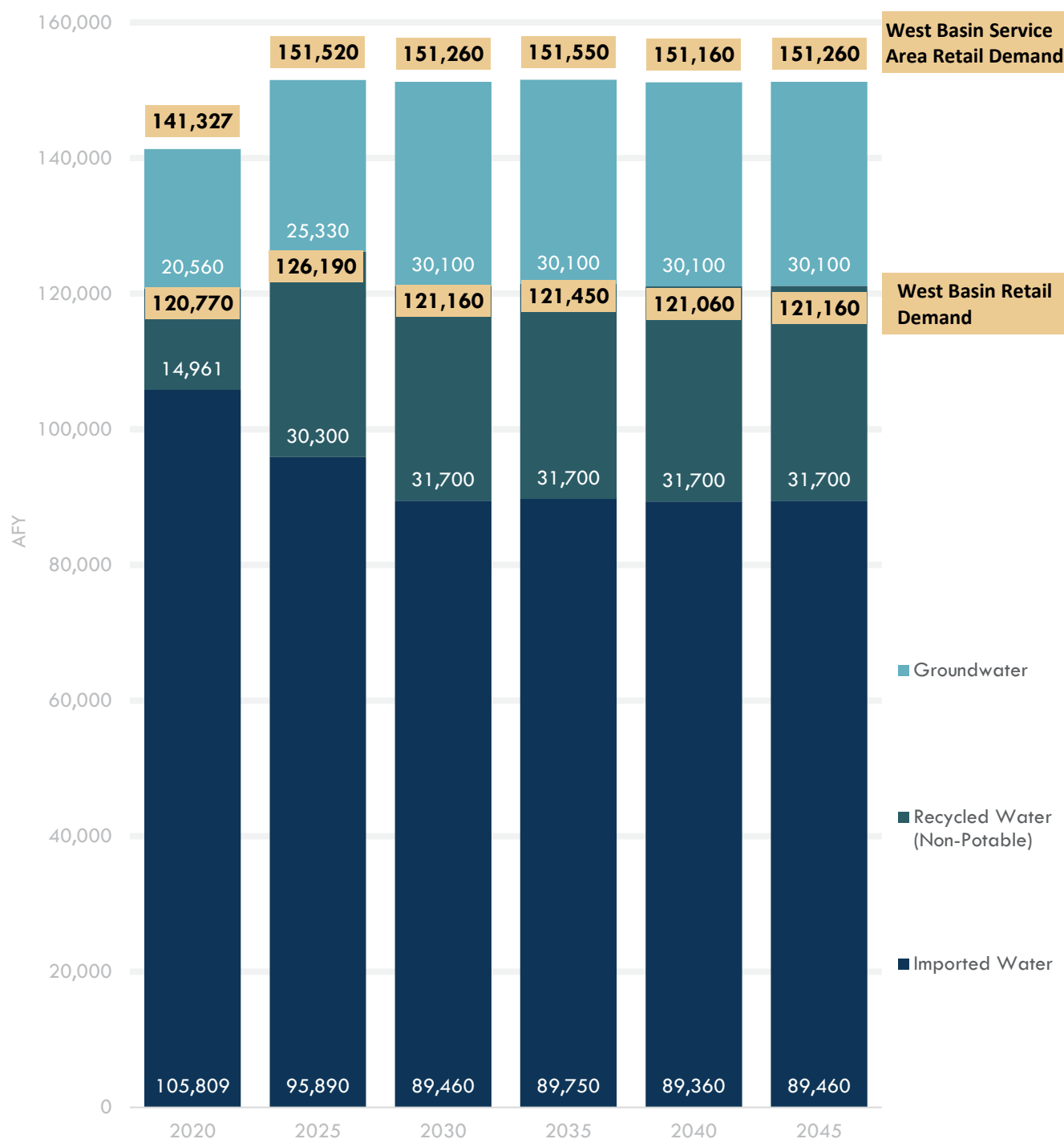
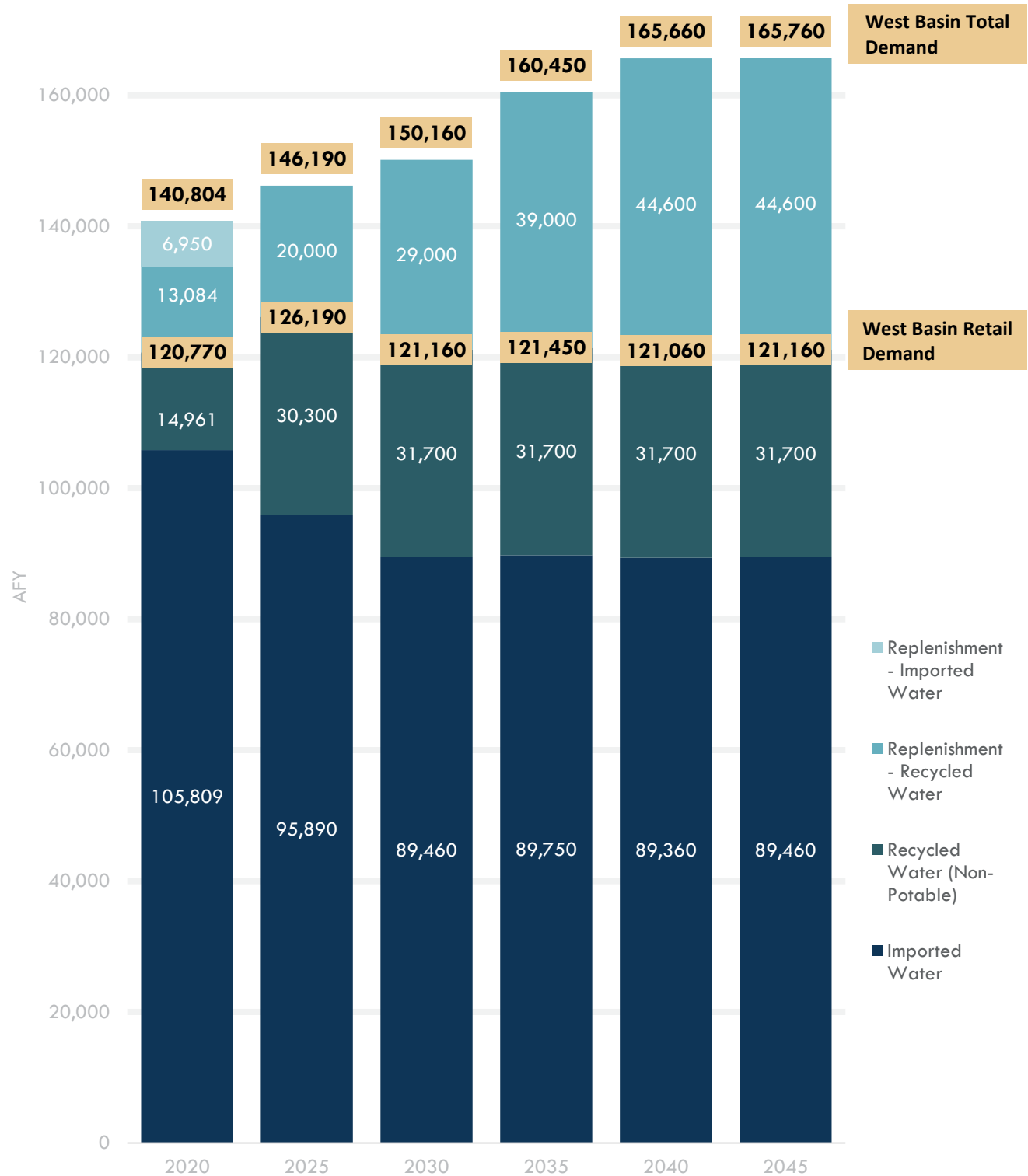


Figure 7-2. West Basin Total Demand and Supply Projections, Normal Year and Single-Dry Year



**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
	<b>DIFFERENCE:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
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
	<b>DIFFERENCE:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
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
	<b>DIFFERENCE:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
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
	<b>DIFFERENCE:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
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
	<b>DIFFERENCE:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

## 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

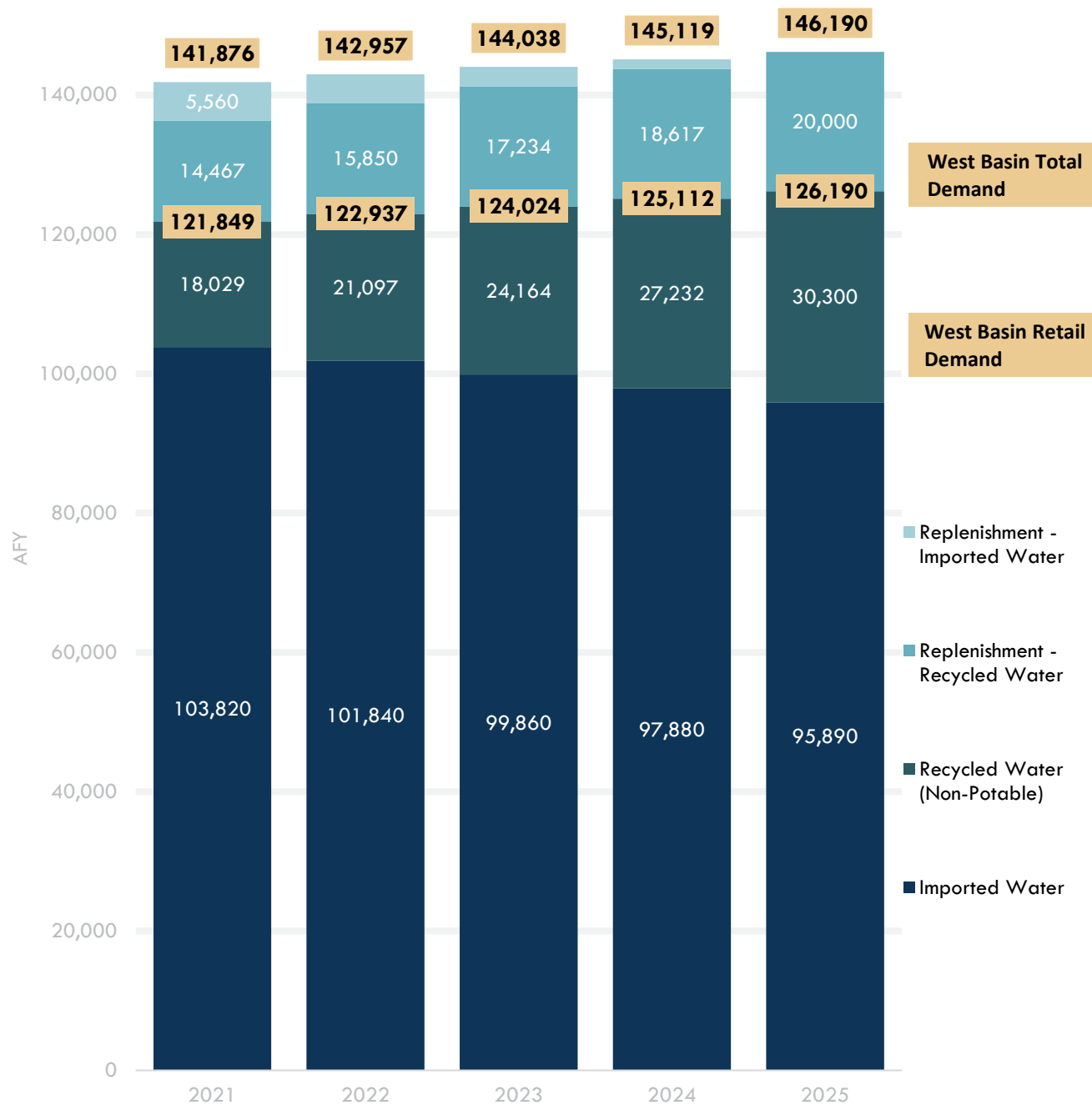
West Basin's projected water sources include imported water from Metropolitan and recycled water. West Basin's recycled water supply is considered reliable in all years. As described in Metropolitan's 2020 UWMP and DRA, Metropolitan's near-term assessment reveals that its supply capabilities are expected 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



# 8 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.

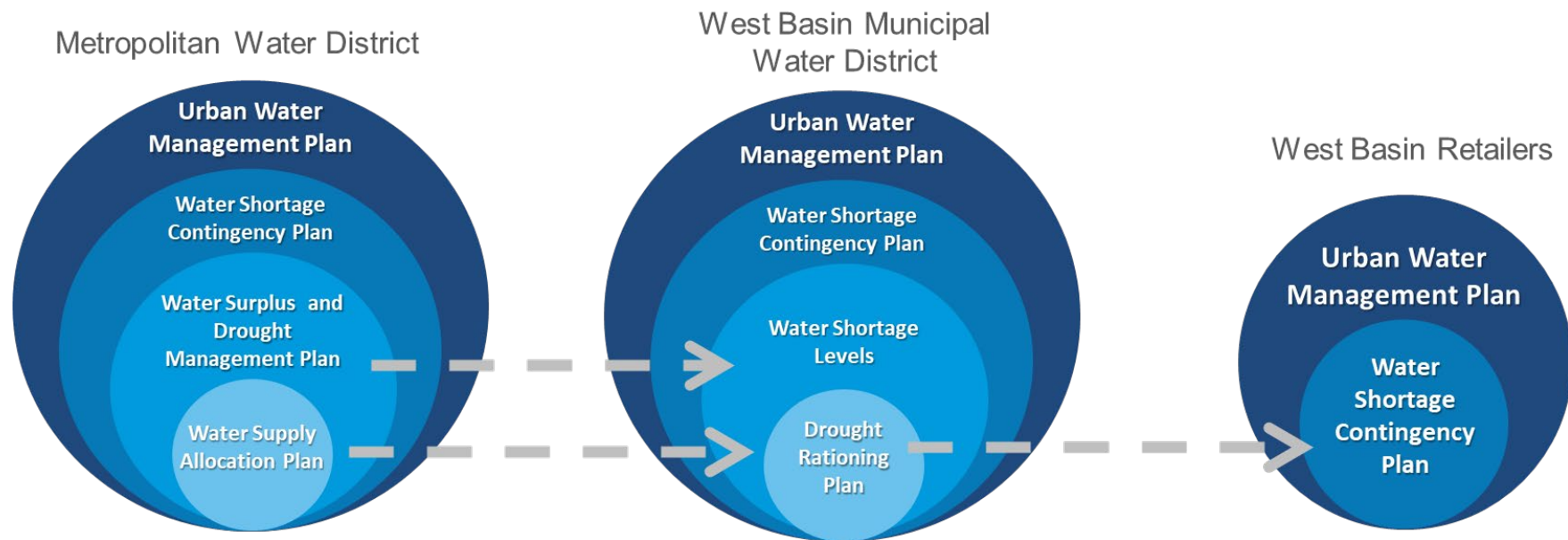
West Basin's 2021 WSCP is included as **Appendix C** and will be submitted as a stand-alone planning document to DWR by July 1, 2021. This WSCP is created separately from West Basin's 2020 UWMP and can be amended, as needed, without amending the UWMP. Furthermore, the water code does not prohibit an 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:

#### Water Supply Reliability Analysis

Summarizes West Basin's water supply analysis and reliability and identifies any key issues that may trigger a shortage condition.

#### 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.

#### Standard Shortage Stages

Establishes water shortage levels to clearly identify and prepare for shortages. (Further described in **Section 8.3**).

#### 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.

#### Communication Protocols

Describes communication protocols under each stage to ensure customers, the public, and government agencies are informed of shortage conditions and requirements.

#### Compliance and Enforcement

This section is not applicable to wholesale water agencies such as West Basin.

#### Legal Authorities

Lists the legal ordinance(s) that grants West Basin the authority to declare a water shortage and implement and enforce response actions.

### Financial Consequences of WSCP Implementation

Describes the anticipated financial impact of implementing water shortage stages and identifies mitigation strategies to offset financial burdens.

### Monitoring and Reporting

This section is not applicable to wholesale water agencies such as West Basin.

### WSCP Refinement Procedures

Describes the factors that may trigger updates to the WSCP and outlines how to complete an update.

### Special Water Features Distinctions

This section is not applicable to wholesale water agencies such as West Basin.

### 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"> <li>- Call for voluntary retail agency water use reductions</li> <li>- Call for voluntary retail agency use of non-imported potable sources</li> <li>- Implement additional conservation/water efficiency programs</li> <li>- Deploy extraordinary public outreach and communications measures</li> <li>- Implement mandatory retail agency water use reductions (in West Basin’s Drought Rationing Plan)</li> </ul>
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.





## URBAN WATER MANAGEMENT PLAN

# 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

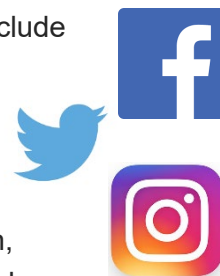
### 9.2.5 Social Media and Website

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](http://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 <sup>th</sup> 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.L.P 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 <sup>th</sup> Annual Salute Awards Ceremony
			EmpowHer Institute Girls to Greatness Teen Conference	Mychal's Learning Plan's Annual Luncheon	Topanga Community Center 45 <sup>th</sup> 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 <sup>th</sup> 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



2018 Solar Cup

### 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.

### 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





### 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.



### 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.

1. Where Your Water Comes From
2. Water Supply Diversity
3. Conservation and Water Efficiency Topics
4. 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

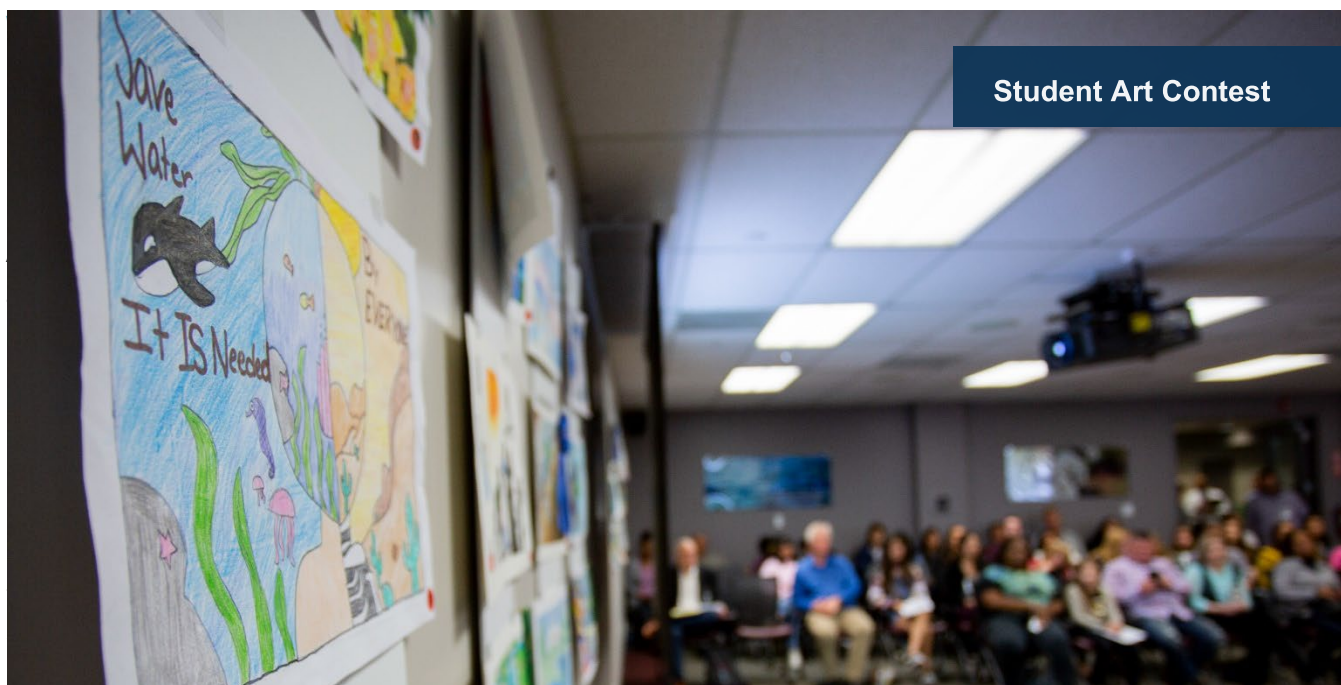
Live-hosted and intended as an alternative to in-person field trips. These events also support teachers conducting synchronous distance learning with their classrooms. For the combined 2019–2020 and 2020–2021 school years, approximately 70 tours have been conducted for more 1,700 students.

#### 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.



## 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.



The banner features the West Basin Municipal Water District logo on the left, which includes a blue water drop with a white fork and knife inside. To the right of the logo, the text "West Basin Municipal Water District" is in small blue font, followed by "CASH FOR KITCHENS" in large, bold, green and blue letters. A vertical line separates this from the main text on the right, which reads "Take an online survey to qualify for a FREE contactless water efficiency package for your restaurant or commercial kitchen!" in bold blue font. Below this text is a yellow button with the URL "www.westbasin.org/c4k" in black. At the bottom of the banner is a dark blue horizontal bar containing five circular icons with yellow borders. Each icon has a blue symbol and a corresponding text label below it: a water drop with a dollar sign for "Save Water, Save Money"; a smartphone for "Online & Mobile-Friendly"; a box with a plug for "Contactless"; a lightbulb for "Save Energy"; and a clock for "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.



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.**

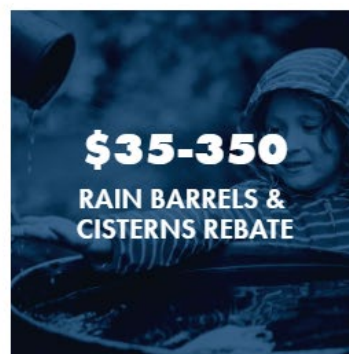
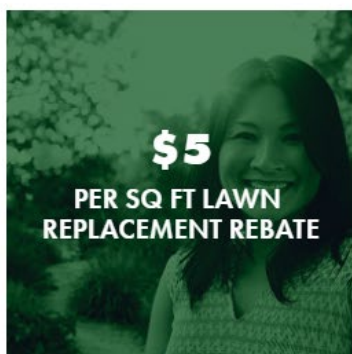
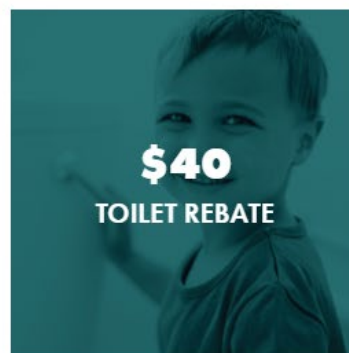
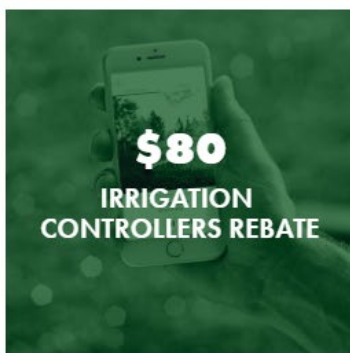




### Malibu Smart and Topanga Smart

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.

**Help your community save  
28 million gallons a year.**



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 ( <b>AMI</b> ), 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.

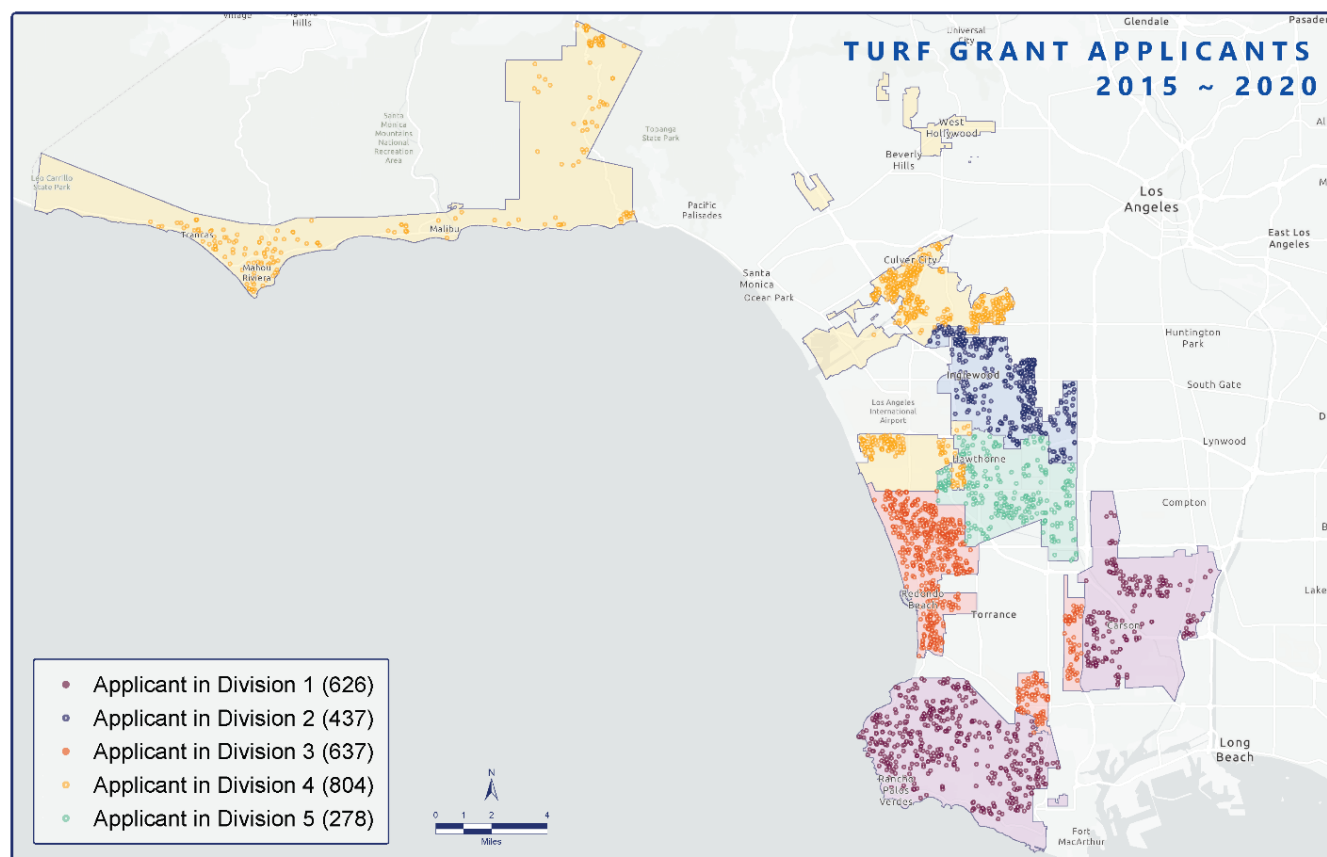
### Grass Removal Rebates

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.

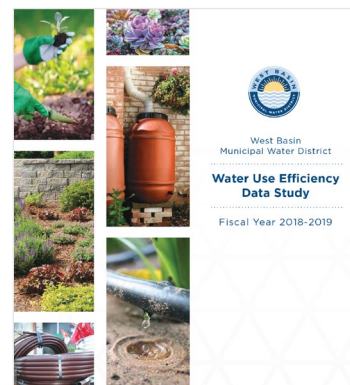
**Figure 9-2. West Basin Grass Removal Rebate Applications (2015-2020)**



### 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 ft<sup>2</sup>

#### Gardena - Rowley Park

13220 Van Ness Avenue, Gardena, CA 90249

(2015)



1,200 ft<sup>2</sup>

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.



Desalter Pilot Facility

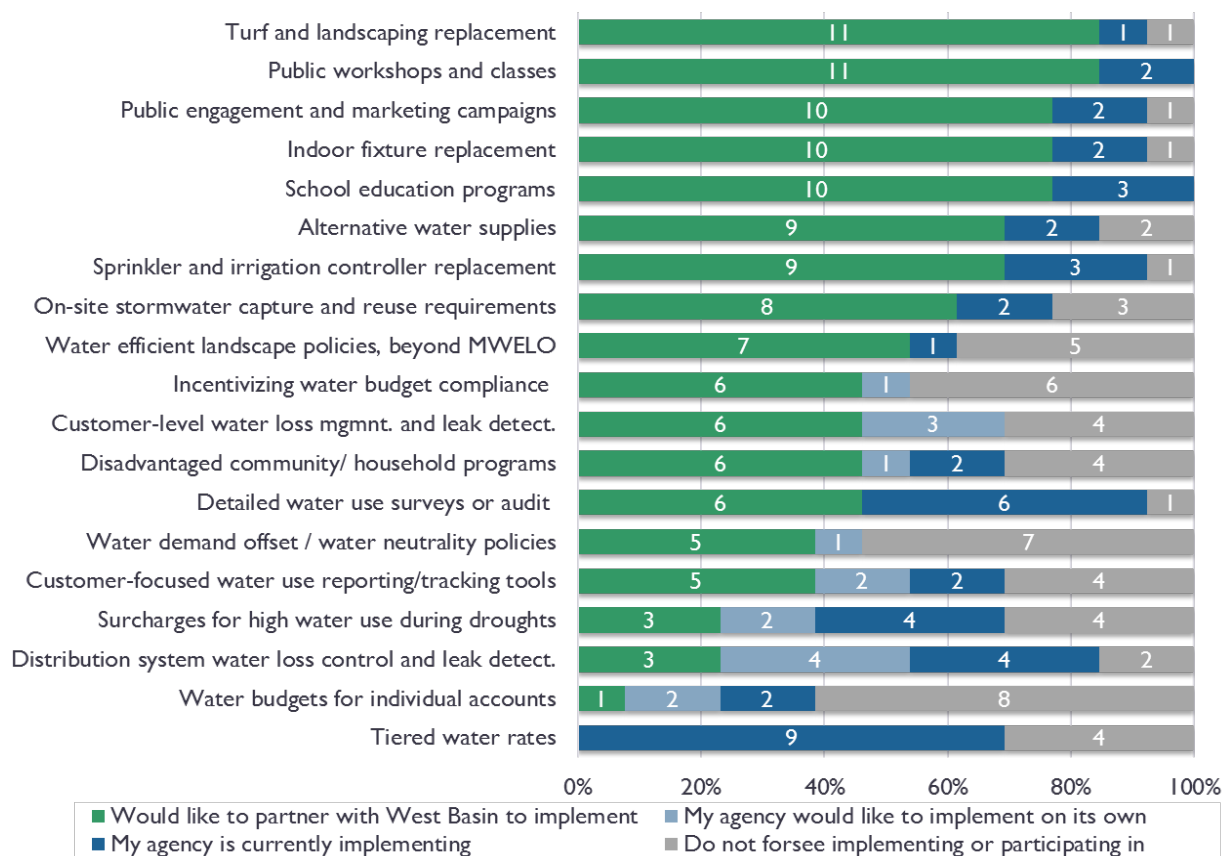
## 9.5 Ongoing Wholesaler Supplier Coordination and Future Assistance Programs

### 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 Legislation<sup>1</sup>. 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.

---

<sup>1</sup> 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](http://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](http://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.



# 11

## URBAN WATER MANAGEMENT PLAN

# References

California Department of Water Resources. (2018). Resource Guide for Climate Change Data and Guidance. Retrieved from [https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Sustainable-Groundwater-Management/Best-Management-Practices-and-Guidance-Documents/Files/Resource-Guide-Climate-Change-Guidance\\_v8\\_ay\\_19.pdf](https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Sustainable-Groundwater-Management/Best-Management-Practices-and-Guidance-Documents/Files/Resource-Guide-Climate-Change-Guidance_v8_ay_19.pdf)

California Natural Resources Agency. (March 2021). Report to the Legislature on the 2012-2016 Drought.

(2020). California Water Resilience Portfolio . California Department of Water Resources.

Climate Change and Water. (2021). Retrieved from California Department of Water Resources: <https://water.ca.gov/Programs/All-Programs/Climate-Change-Program/Climate-Change-and-Water>  
Department of Water Resources. (August 2020). 2019 State Water Project Delivery Capability Report.

Geosyntec. (November 2015). Feasibility Assessment of Subsurface Seawater Intakes.

Hazen and Sawyer. (June 2014). Ocean Water Desalination Water Quality Integration Study.

HDR. (2021). West Basin Municipal Water District Executive Summary Recycled Water Master Plan.

Malcolm Pirnie, Arcadis. (January 2013). Ocean Water Desalination Program Master Plan.

Metropolitan Water District of Southern California. (March 2021). Draft 2020 Urban Water Management Plan.

Metropolitan Water District of Southern California. (March 2021). Draft 2020 Urban Water Management Plan.

Recycled Water Facilities Service Area Map. (2018, 05 18). Retrieved from West Basin Municipal Water District : <https://www.westbasin.org/water-supplies/recycled-water/facilities/>

- SPI. (September 2010). Ocean Water Desalination Pilot Program Final Comprehensive Report 2002-2009.
- State Water Project. (2021). Retrieved from California Department of Water Resources:  
<https://water.ca.gov/Programs/State-Water-Project>
- The West Basin Ocean Water Desalination Project. (2021, 04 08). Retrieved from West Basin Municipal Water District: <https://www.westbasin.org/desalination/project-overview/>
- Water Replenishment District . (2021). WIN 4 ALL. Retrieved from Water Replenishment District of Southern California: <https://www.wrd.org/content/win-4-all>
- Water Replenishment District of Southern California. (2021). Regional Groundwater Monitoring Report Water Year 2019-2020.
- Water Replenishment District of Southern California. (November 2019). West Coast Basin Watermaster West Coast Basin Water Rights Panel .
- West Basin Municipal Water District. (2021). Drought Rationing Plan. Retrieved from Reports & Plans: <https://www.westbasin.org/policy-planning/reports-plans/>
- West Basin Municipal Water District. (October 2019). Ocean Water Desalination Project Final Environmental Impact Report.
- West Coast Groundwater Basin. (2021, 04). Retrieved from West Basin Municipal Water District: <https://www.westbasin.org/water-supplies/groundwater/west-coast-groundwater-basin/>



---

## 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:**

Table 2-1 on page 2-3 of the Plan.
------------------------------------

---

### 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
<b>Potable and Raw Water</b> From Table 4-1W and 4-2W	112,760	95,890	89,460	89,750	89,360	89,460
<b>Recycled Water Demand*</b> From Table 6-4W	28,045	50,300	60,700	70,700	76,300	76,300
<b>Total Water Demand:</b>	<b>140,805</b>	<b>146,190</b>	<b>150,160</b>	<b>160,450</b>	<b>165,660</b>	<b>165,760</b>

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
<b>Retail Agencies</b>	Tertiary and Advanced	14,961	30,300	31,700	31,700	31,700	31,700
<b>Water Replenishment Dist. of So. California</b>	Advanced	13,084	20,000	29,000	39,000	44,600	44,600
<b>Total:</b>		<b>28,045</b>	<b>50,300</b>	<b>60,700</b>	<b>70,700</b>	<b>76,300</b>	<b>76,300</b>

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

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.						
Page Location for Narrative in UWMP:			Expanded recycled water use in Section 6.4.2 (page 6-14) and ocean desalination in Section 6.8 (page 6-17).			
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		-
Note: Does not include recycled water deliveries for non-potable use or seawater barrier replenishment.				

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
<b>Supply Totals</b> From Table 6-9W	146,190	150,160	160,450	165,660	165,760
<b>Demand Totals</b> From Table 4-3W	146,190	150,160	160,450	165,660	165,760
<b>Difference:</b>	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%

## 8-1 | Water Shortage Contingency Plan Levels

Shortage Level	Percent Shortage Range	Shortage Response Actions (Narrative description)
<b>0</b>	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.
<b>1</b>	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"> <li>- Call for voluntary retailer water-use reductions</li> <li>- Call for voluntary retailer use of non-imported potable sources</li> <li>- Implement additional conservation/water-efficiency programs</li> <li>- Deploy public outreach and communications measures</li> <li>- Implement mandatory retailer water-use reductions (in West Basin's DRP)</li> </ul>
<b>2</b>	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%.
<b>3</b>	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%.
<b>4</b>	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%.
<b>5</b>	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%.
<b>6</b>	>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%



## 8-2 | Demand Reduction Actions

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

Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap?	Additional Explanation	Penalty, Charge, or Other Enforcement?
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
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.

### 8-3 | Supply Augmentation and Other Actions

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

10-1W | Notification to Cities & Counties

<b>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.</b>	
Page Location for List in UWMP:	Table 2-1



---

# Water Shortage Contingency Plan





# Water Shortage Contingency Plan

Final

JUNE 2021

WEST BASIN MUNICIPAL WATER DISTRICT



MADDAUS  
WATER  
MANAGEMENT INC.

WSC



WEST BASIN MUNICIPAL WATER DISTRICT

---

# Water Shortage Contingency Plan

JUNE 28, 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.



**Lisa Maddaus, PE**

License No. C60047



**Jeff Szytel, PE**  
**Rob Morrow, PE**  
**Heather Freed, PE**  
**Lizzie Wiley, EIT**

The Project Team would like to acknowledge the significant contributions of West Basin Municipal Water District, including the following staff.



**Edward Caldwell**  
**Matthew Veeh**

# TABLE OF CONTENTS

---

List of Figures .....	ii
List of Tables .....	ii
Acronyms & Abbreviations .....	iii
1. Introduction and WSCP Overview .....	1-1
1.1 Water Shortage Contingency Plan Requirements and Organization .....	1-2
1.2 Integration with Other Planning Efforts .....	1-3
2. Background Information .....	2-1
2.1 General Description .....	2-2
2.1.1 Overview of West Basin and Metropolitan .....	2-6
2.2 Relationship with Metropolitan Water Shortage Planning .....	2-7
2.2.1 Metropolitan Water Surplus and Drought Management Plan .....	2-7
2.2.2 Metropolitan Water Supply Allocation Plan .....	2-9
2.2.3 West Basin Drought Rationing Plan .....	2-10
3. Water Shortage Contingency Preparation and Response .....	3-1
3.1 Water Supply Reliability Analysis .....	3-2
3.2 Annual Water Supply and Demand Assessment Procedures .....	3-2
3.2.1 Decision-Making Process .....	3-2
3.2.2 Data and Methods .....	3-4
3.3 Six Standard Water Shortage Levels .....	3-5
3.4 Shortage Response Actions .....	3-6
3.4.1 Demand Reduction .....	3-6
3.4.2 Supply Augmentation .....	3-9
3.4.3 Operational Changes .....	3-9
3.4.4 Additional Mandatory Restrictions .....	3-9
3.4.5 Emergency Response Plan (Hazard Mitigation Plan) .....	3-9
3.4.6 Seismic Risk Assessment and Mitigation Plan .....	3-10
3.4.7 Shortage Response Action Effectiveness .....	3-10
3.5 Communication Protocols .....	3-10
3.6 Compliance and Enforcement .....	3-17
3.7 Legal Authorities .....	3-17
3.8 Financial Consequences of WSCP .....	3-17

3.9 Monitoring and Reporting .....	3-18
3.10 WSCP Refinement Procedures.....	3-18
3.11 Special Water Feature Distinction .....	3-19
3.12 Plan Adoption, Submittal, and Availability .....	3-19
References .....	R
Attachment A: Metropolitan 2020 WSCP .....	A
Attachment B: West Basin 2015 Drought Rationing Plan .....	B
Attachment C: Drought Outreach Information and Materials .....	C
Attachment D: Public Notices .....	D
Attachment E: Adoption Resolution .....	E

## LIST OF FIGURES

---

Figure 1-1. Previous and Ongoing Planning Efforts .....	1-4
Figure 2-1. West Basin Board of Directors .....	2-2
Figure 2-2. West Basin Retail Agencies.....	2-3
Figure 2-3. West Basin Service Area .....	2-4
Figure 2-4. West Basin Service Area Water Supplies .....	2-7
Figure 2-5. Surplus and Shortage Stages, Anticipated Actions, and Supply Declarations .....	2-8
Figure 3-1. Annual Assessment Reporting Timeline .....	3-4

## LIST OF TABLES

---

Table 2-1. Types of Water Supplied to West Basin Retail Agencies.....	2-5
Table 3-1. Wholesaler: Water Shortage Contingency Plan Levels (DWR Table 8-1).....	3-6
Table 3-2. Demand Reduction Actions (DWR Table 8-2).....	3-7



# 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 1983<sup>1</sup>. 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.

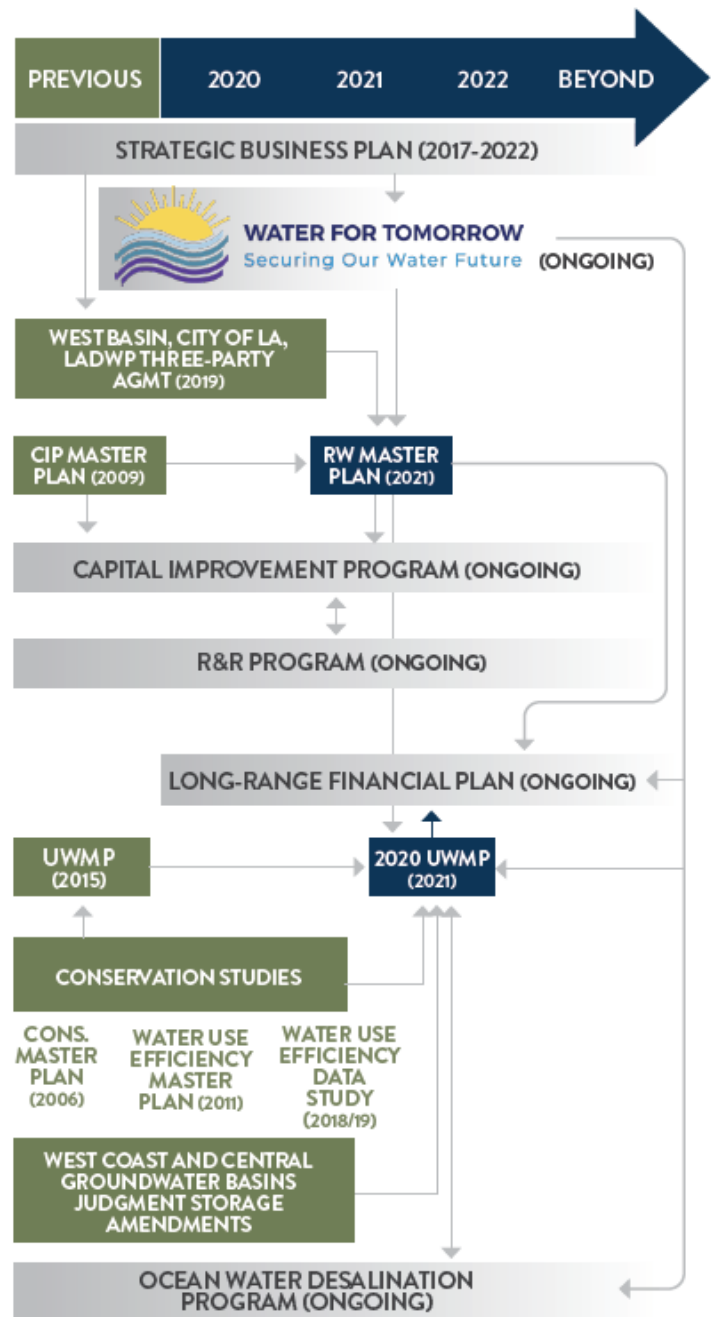
---

<sup>1</sup> 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

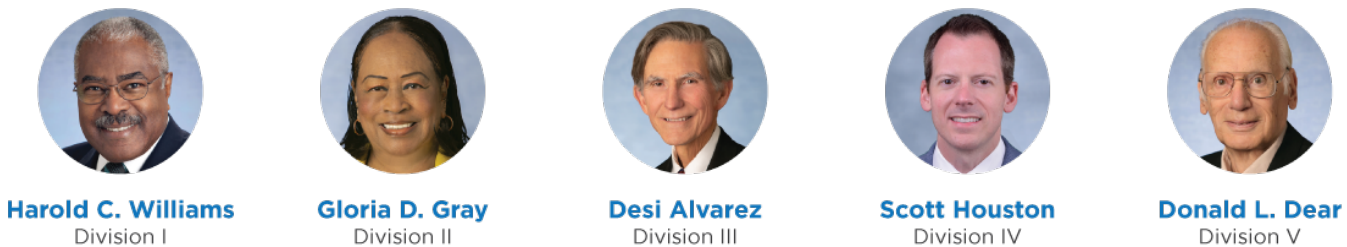
An innovative public agency, West Basin is a recognized leader in the production of recycled water, conservation, and educational programs. West Basin was established by a vote of the people in 1947 to help mitigate over pumping in the West Coast Basin by providing the growing region with imported water. 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**



**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.

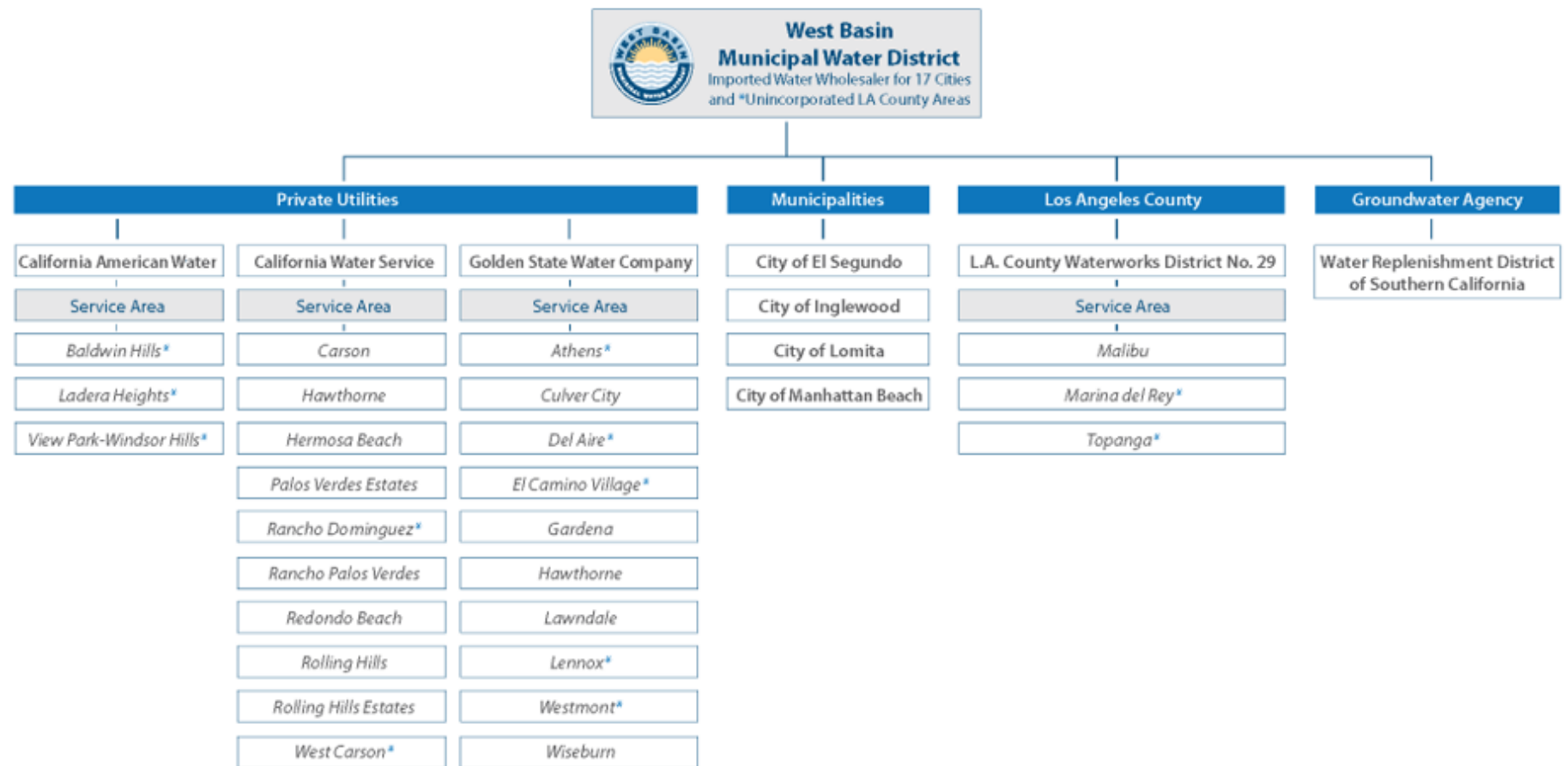
**Division III:** Cities of Hermosa Beach, Lomita, Manhattan Beach, Redondo Beach, and a portion of Torrance.

**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.

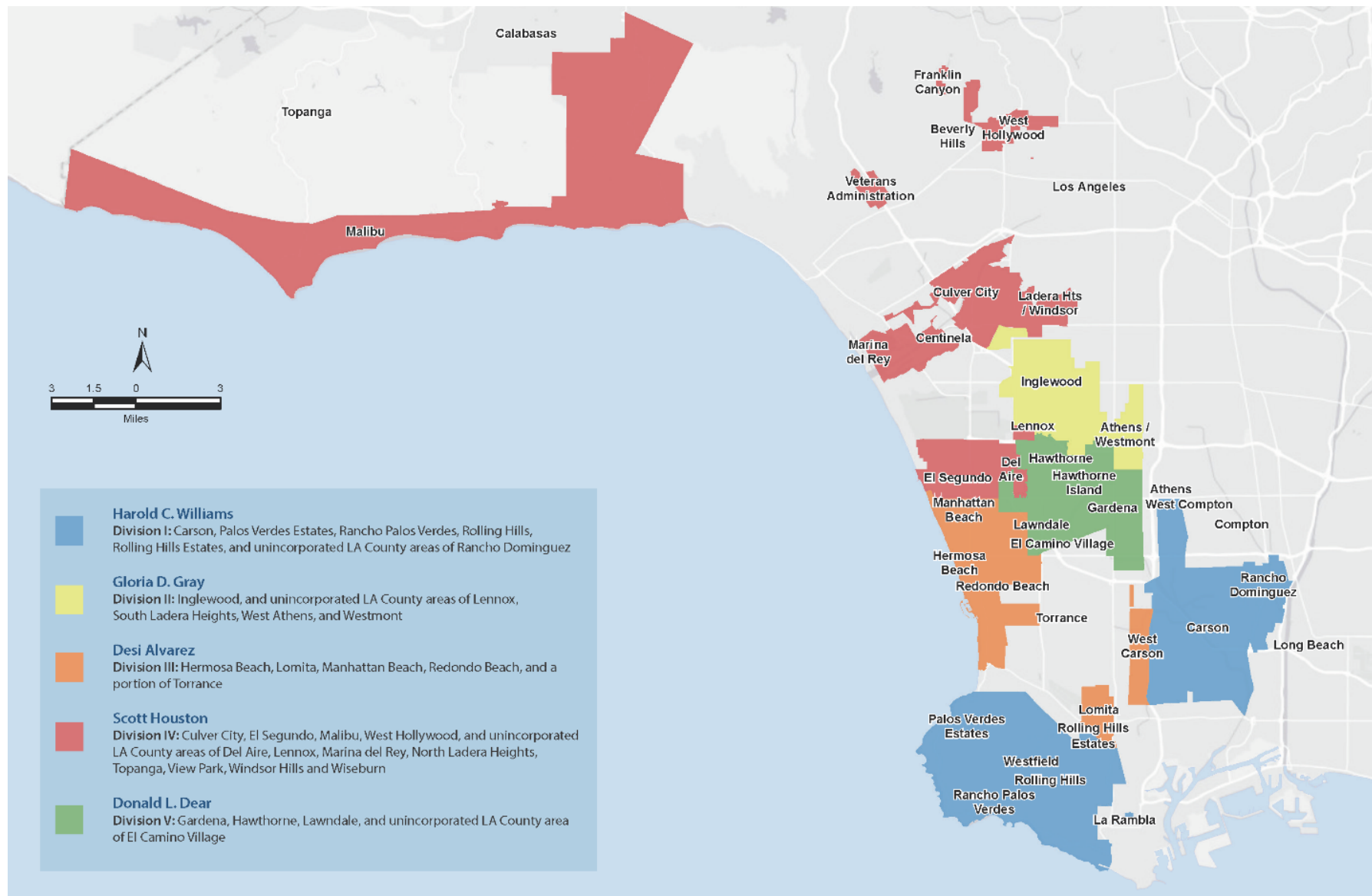
Today, West Basin provides wholesale potable water to three investor-owned utilities, four municipalities, one county waterworks district, and one groundwater agency. The relationship between West Basin and its retail agencies is illustrated in **Figure 2-2**. A map of West Basin’s service area as delineated 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.<sup>1</sup> 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.

---

<sup>1</sup> 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**

Surplus Stages				Actions	Shortage Stages						
4	3	2	1		1	2	3	4	5	6	
				Put to SWP & CRA Groundwater Storage							
				Put to SWP & CRA Surface Storage							
				Put to Conjunctive Use Groundwater							
				Put to DWR Flexible Storage							
				Put to Metropolitan Surface Storage							
				Public Outreach							
				Take from Metropolitan Surface Storage							
				Take from SWP Groundwater Storage							
				Take from Conjunctive Use Storage							
				Take from SWP & CRA Surface Storage							
				Take from DWR Flexible Storage							
				Extraordinary Conservation							
				Reduce IAWP Deliveries							
				Call Options Contracts							
				Buy Spot Transfers							
				Implement Water Supply Allocation Plan							

 Potential Simultaneous Actions

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](http://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).

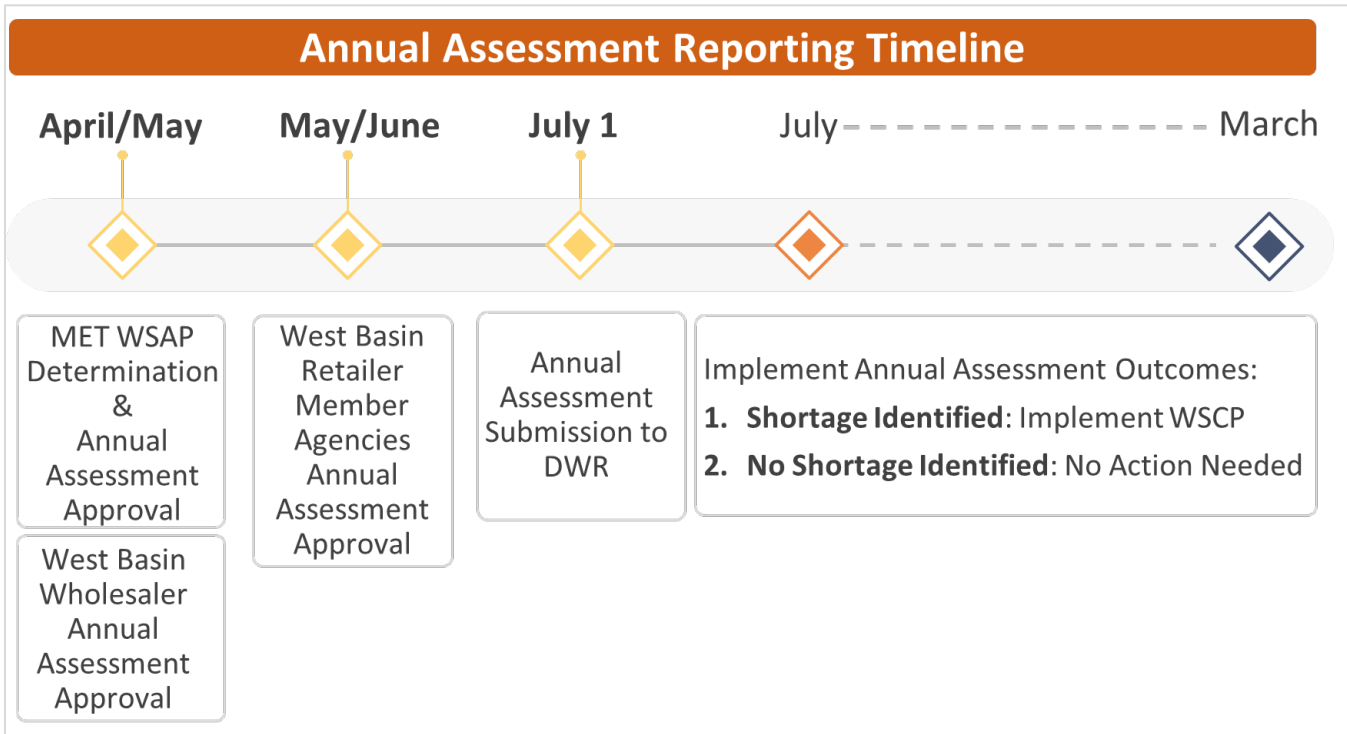
On a monthly basis, West Basin staff also provides the Board of Directors with a Metropolitan-generated report of current statewide water supply conditions. The report includes information on key water supply factors such as storage, precipitation, snowpack, and State Water Project allocations. The monthly 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: <ul style="list-style-type: none"> <li>- Call for voluntary retailer water-use reductions</li> <li>- Call for voluntary retailer use of non-imported potable sources</li> <li>- Implement additional conservation/water-efficiency programs</li> <li>- Deploy public outreach and communications measures</li> <li>- Implement mandatory retailer water-use reductions (in West Basin's DRP)</li> </ul>
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)**

<b>SHORTAGE LEVEL</b>	<b>SUPPLY AUGMENTATION METHODS AND OTHER ACTIONS BY WATER SUPPLIER</b>	<b>HOW MUCH IS THIS GOING TO REDUCE THE SHORTAGE GAP?</b>	<b>ADDITIONAL EXPLANATION OR REFERENCE</b>
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](http://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.<sup>3</sup> 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**.

---

<sup>3</sup> <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. 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.<sup>4</sup>

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.

---

<sup>4</sup> <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/>

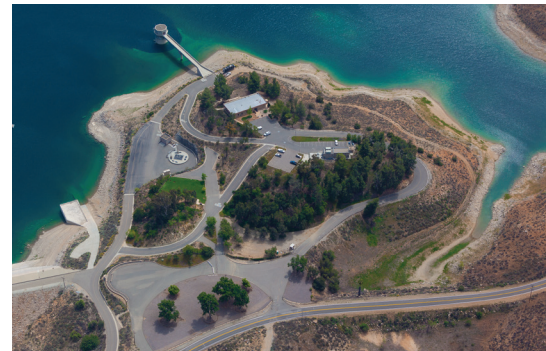


## Attachment A: Metropolitan 2020 WSCP

Metropolitan Water District of Southern California, Water Shortage Contingency Plan (June 2021) was adopted on May 11, 2021 and submitted to the California Department of Water Resources on June 3, 2021. Reference Metropolitan's Final 2020 WSCP online:  
<http://www.mwdh2o.com/AboutYourWater/Planning/Planning-Documents>

# WATER SHORTAGE CONTINGENCY PLAN

**JUNE 2021**



THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA

**The Metropolitan Water District of Southern California**

# **WATER SHORTAGE CONTINGENCY PLAN**

**June 2021**

**Including  
Water Surplus and Drought Management Plan,  
Water Supply Allocation Plan, and  
WSCP Resolution 9281**

## Table of Contents

List of Acronyms and Abbreviations .....	A-ii
A.4.1 Background Information on Metropolitan .....	A-2
A.4.2. Analysis of Water Supply Reliability .....	A-7
A.4.3. Annual Water Supply and Demand Assessment Procedures.....	A-8
A.4.4. Shortage Levels and Shortage Response Actions.....	A-19
A.4.5. WSCP Communications Plan .....	A-29
A.4.6. Legal Authorities .....	A-39
A.4.7. Financial Consequences of and Responses for Drought Conditions .....	A-45
A.4.8. WSCP Adoption and Refinement Procedures .....	A-46
ATTACHMENTS.....	A-47
<b>Attachment A – Water Surplus and Drought Management Plan</b>	
<b>Attachment B – Water Supply Allocation Plan</b>	
<b>Attachment C – WSCP Resolution</b>	



## List of Acronyms and Abbreviations

AF	Acre-feet
CRA	Colorado River Aqueduct
CUP	Conjunctive Use Programs
CVWD	Coachella Valley Water District
CWC	California Water Code
DWA	Desert Water Agency
DWR	California Department of Water Resources
IID	Imperial Irrigation District
IRP	Integrated Water Resources Plan
ICS	Lake Mead Intentionally Created Surplus
MAF	Million Acre-feet
MWD	The Metropolitan Water District of Southern California
MWD Act	Metropolitan Water District Act
PVID	Palo Verde Irrigation District
QSA	Quantification Settlement Agreement
SNWA	Southern Nevada Water Authority
SWP	State Water Project
TAF	Thousand Acre-Feet
USBR	United States Bureau of Reclamation
UWMP	Urban Water Management Plan
WSAP	Water Supply Allocation Plan
WSCP	Water Shortage Contingency Plan
WSDM	Water Surplus and Drought Management

# **WATER SHORTAGE CONTINGENCY PLAN**

## **Appendix 4 in The Metropolitan Water District of Southern California's 2020 Urban Water Management Plan**

This Water Shortage Contingency Plan (WSCP) complies with California Water Code (CWC) Section 10632, which requires that every urban water supplier shall prepare and adopt a WSCP as part of its urban water management plan (UWMP). Section 10632.2 provides, "An urban water supplier shall follow, where feasible and appropriate, the prescribed procedures and implement determined shortage response actions in its water shortage contingency plan...or reasonable alternative actions, provided that descriptions of the alternative actions are submitted with the annual water shortage assessment report pursuant to Section 10632.1." Notwithstanding, 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.

The WSCP is a guide for the Metropolitan Water District of Southern California's (Metropolitan's) intended actions during water shortage conditions. It is meant to improve preparedness for droughts and other impacts on water supplies by describing the process used to address varying degrees of water shortages. Certain elements of the WSCP are required by the CWC, including response actions that align with six standard water shortage levels based on water supply conditions, as well as shortages resulting from catastrophic supply interruptions. The WSCP also describes Metropolitan's procedures for conducting an Annual Water Supply and Demand Assessment (Annual Assessment) that is required by CWC 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 (SWP), whichever is later.

Metropolitan's WSCP is included as Appendix 4 to its 2020 UWMP which will be submitted to DWR by July 1, 2021. However, this WSCP is created separately from Metropolitan's 2020 UWMP and can be amended, as needed, without amending the UWMP.

### ***Organization of this Document***

The WSCP covers the required elements as set forth by CWC Section 10632. Because Metropolitan is a wholesale urban water supplier, elements that pertain only to retail water suppliers are not addressed in this WSCP.<sup>1</sup> The document contains eight sections. Section A.4.1 is an introduction that explains the purpose of the WSCP and provides background on Metropolitan's service area and system. Section A.4.2 is a summary of the water supply analysis and water reliability findings from the 2020 UWMP, pursuant to CWC Section 10635. Section A.4.3 is a description of procedures to conduct and approve the Annual Assessment. Section A.4.4 explains the WSCP's six standard water shortage levels corresponding to progressive ranges of up to 10, 20, 30, 40, 50, and more than 50 percent shortages and describes the WSCP's shortage response actions that align with the defined shortage levels. Section A.4.5 addresses communication protocols and procedures to inform customers, the

---

<sup>1</sup> WSCP elements that apply specifically to retailer water suppliers are: (1) a description of customer compliance, enforcement, appeal, and exemption procedures for triggered response actions (CWC Section 10632(a)(6)); (2) a description of the cost of compliance with Chapter 3.3 (commencing with Section 365) of Division 1 (CWC Section 10632(a)(8)(c)); and (3) monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance and to meet state reporting requirements (CWC Section 10632(a)(9)).

public, interested parties, and local, regional, and state governments regarding any current or predicted shortages and any resulting shortage response actions. Section A.4.6 is a description of the legal authorities that enable Metropolitan to implement and enforce its shortage response actions. Section A.4.7 is a description of the financial consequences of and responses for drought conditions. Section A.4.8 addresses reevaluation and improvement procedures for monitoring and evaluating the functionality of the WSCP and describes the process to adopt, submit, and amend the WSCP.

#### **A.4.1 Background Information on Metropolitan**

##### **Background**

Metropolitan is a public agency organized in 1928 by a vote of the electorate of 13 Southern California cities. The agency was enabled by the adoption of the original Metropolitan Water District Act (MWD Act) by the California Legislature “for the purpose of developing, storing, and distributing water for domestic purposes.” The MWD Act also allows Metropolitan to sell “surplus water not needed or required for domestic or municipal uses within the district for beneficial purposes.” In 1992, the Metropolitan Board of Directors adopted the following mission statement:

*“To provide its service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way.”*

Water used in Southern California comes from several sources. The investments that Metropolitan has made and its ongoing efforts in many different areas coalesce toward its goal of long-term regional water supply reliability. The first function of Metropolitan was building the Colorado River Aqueduct (CRA) to convey water from the Colorado River. Deliveries through the CRA to member agencies began in 1941 and supplemented the local water supplies of the Southern California member cities. In 1960, to meet growing water demands in its service area, Metropolitan contracted with DWR for participation in the SWP, which delivers water to Metropolitan's service area via the California Aqueduct. SWP deliveries began in 1972. Metropolitan currently receives imported water from both of these sources: (1) Colorado River via the CRA, and (2) the SWP via the California Aqueduct. Beyond its core imported supplies from the Colorado River and SWP, Metropolitan actively supports efforts to develop storage and groundwater management programs, and to increase conservation, water recycling, groundwater recovery, and seawater desalination projects.

##### **Service Area**

Metropolitan's service area covers the Southern California coastal plain. It extends about 200 miles along the Pacific Ocean from the city of Oxnard to the north to the international boundary with Mexico to the south, and it reaches as far as 70 miles inland from the coast. The total area served is approximately 5,200 square miles, and it includes portions of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura counties. Table A.4-1 shows that although only 14 percent of the land area of the six Southern California counties is within Metropolitan's service area, approximately 86 percent of the population of those counties resides within Metropolitan's boundaries.

**Table A.4-1**  
**July 1, 2020 Area and Population in the**  
**Six Counties of Metropolitan's Service Area**

County	Total County	In Metropolitan Service Area	Percent in Metropolitan
Land Area (Square Miles)			
Los Angeles County	4,061	1,408	35%
Orange County	789	699	89%
Riverside County	7,208	1,057	15%
San Bernardino County	20,052	242	1%
San Diego County	4,200	1,420	34%
Ventura County	1,845	365	20%
<b>Metropolitan's Service Area</b>	<b>38,155</b>	<b>5,191</b>	<b>14%</b>
Population (Persons)			
Los Angeles County	10,172,000	9,275,000	91%
Orange County	3,191,000	3,184,000	100%
Riverside County	2,449,000	1,813,000	74%
San Bernardino County	2,184,000	872,000	40%
San Diego County	3,352,000	3,261,000	97%
Ventura County	841,000	630,000	75%
<b>Metropolitan's Service Area</b>	<b>22,189,000</b>	<b>19,035,000</b>	<b>86%</b>

Metropolitan is currently composed of 26 member agencies, including 14 cities, 11 municipal water districts, and one county water authority. Metropolitan is a water wholesaler with no retail customers. It provides treated and untreated water to its member agencies.

Metropolitan's 26 member agencies deliver to their customers a combination of local groundwater, local surface water, recycled water, desalinated seawater, and imported water received from Metropolitan. For some member agencies, Metropolitan supplies all the water used within that agency's service area, while others obtain varying amounts of water from Metropolitan to supplement local supplies. Between 2011 and 2020, Metropolitan has provided between 40 and 50 percent of the municipal, industrial, and agricultural water used in its service area. The remaining water supply comes from local wells, local surface water, recycling, and the city of Los Angeles' aqueducts from the Owens Valley/Mono Basin east of the Sierra Nevada. Member agencies also implement conservation programs that can be considered part of their supplies.

Some member agencies provide retail water service, while others provide water to their local area as wholesalers. Table A.4-2 shows Metropolitan's member agencies and the type of service that they provide. As shown in the table, 15 member agencies provide retail service to customers, nine provide only wholesale service, and two provide a combination of both. Metropolitan's member agencies serve residents in 152 cities and 89 unincorporated communities. Throughout Metropolitan's service area, approximately 250 retail water suppliers directly serve the population.

**Table A.4-2**  
**Metropolitan's Member Agencies and Type of Water Service Provided**

<b>Member Agency</b>	<b>Retail or Wholesale</b>
<b>Los Angeles County</b>	
Beverly Hills, City of	Retail
Burbank, City of	Retail
Central Basin Municipal Water District	Wholesale
Compton, City of	Retail
Foothill Municipal Water District	Wholesale
Glendale, City of	Retail
Las Virgenes Municipal Water District	Retail
Long Beach, City of	Retail
Los Angeles, City of	Retail
Pasadena, City of	Retail
San Fernando, City of	Retail
San Marino, City of	Retail
Santa Monica, City of	Retail
Three Valleys Municipal Water District	Wholesale
Torrance, City of	Retail
Upper San Gabriel Valley Municipal Water District	Wholesale
West Basin Municipal Water District	Wholesale
<b>Orange County</b>	
Anaheim, City of	Retail
Fullerton, City of	Retail
Municipal Water District of Orange County	Wholesale
Santa Ana, City of	Retail
<b>Riverside County</b>	
Eastern Municipal Water District	Retail & Wholesale
Western Municipal Water District	Retail & Wholesale
<b>San Bernardino County</b>	
Inland Empire Utilities Agency	Wholesale
<b>San Diego County</b>	
San Diego County Water Authority	Wholesale
<b>Ventura County</b>	
Calleguas Municipal Water District	Wholesale



## *Reliability Planning*

Metropolitan continuously engages in planning for various aspects of its water management, including operations, long-term reliability, and emergency response. These planning efforts include the 1996 Integrated Water Resources Plan (IRP) and its three updates in 2004, 2010, and 2015; the 2020 IRP (currently in development); the WSCP; the Water Surplus and Drought Management (WSDM) Plan; the Water Supply Allocation Plan (WSAP); the Emergency Storage Objective; and the Seismic Risk Assessment and Mitigation Plan. Collectively, they provide a policy framework, operating guidelines, and resource targets for Metropolitan to ensure regional water supply reliability.

The IRP is Metropolitan's evolving long-term plan to assure adequate water supplies for Southern California. The first IRP was adopted in 1996 to address the complexity of developing, maintaining and delivering water to meet changing demands in the face of growing challenge. The IRP has been updated several times over the past 25 years. In 2020, Metropolitan started development of a new IRP that incorporates planning for multiple future scenarios to address an extended range of uncertainty. While Metropolitan coordinates regional supply planning through its inclusive IRP process, Metropolitan's member agencies also conduct their own planning analyses, including their own urban water management plans, and may develop projects independently of Metropolitan.

The WSCP is designed to be consistent with the WSDM Plan and the WSAP described below. Throughout the year, Metropolitan evaluates member agency demands, available water supplies, and existing water storage levels on a monthly basis to determine the appropriate actions identified in the WSDM Plan.

The 1999 WSDM Plan provides policy guidance for managing regional water supplies during surplus and shortage conditions. Similar in concept to the WSCP, the WSDM Plan provides an overall vision for operational supply management and characterizes a flexible sequence of actions to minimize the probability of severe shortages and reduce the likelihood of extreme shortages. WSDM Plan principles guide the specific actions to be taken under WSCP shortage stages (see section A.4.4). Data collection, continual analysis, and monthly reporting processes of WSDM Plan implementation will form the basis for Metropolitan's Annual Water Supply Demand Assessment that will be provided annually to the state beginning in July 2022. The WSDM Plan is included as Attachment A to this WSCP.

The WSAP is Metropolitan's policy and formula for equitably allocating available water supplies to the member agencies during extreme water shortages when Metropolitan determines it is unable to meet all of its demands. The WSAP is included as Attachment B to this WSCP.

The Emergency Storage Objective is the regional planning estimate for emergency storage, which represents the amount of water that Metropolitan would hold in storage for the region in preparation for a catastrophic earthquake that would damage the aqueducts that transport imported water supplies to Southern California: the CRA, both the East and West branches of the California Aqueduct, and the Los Angeles Aqueduct. In 2019, Metropolitan and its member agencies completed a process to update the planning estimate of Metropolitan's Emergency Storage Objective. The emergency storage allows Metropolitan to deliver reserve supplies to the member agencies to supplement local production. This helps avoid severe water shortages during periods when the imported water aqueducts may be out of service.

Beginning January 2020, CWC Section 10632.5 mandates urban water suppliers to include in their UWMP a seismic risk assessment and mitigation plan to assess the vulnerability of each of the various facilities of a water system and mitigate those vulnerabilities. For Metropolitan, this requirement was addressed as part of developing its resilience strategy and is presented in detail in Metropolitan's seismic resiliency reports in Appendix 9 to the 2020 UWMP, which are incorporated herein by reference.

#### **A.4.2. Analysis of Water Supply Reliability**

Besides the WSCP, the Urban Water Management Planning Act requires suppliers to conduct two other planning analyses to evaluate supply reliability. The first is a Water Reliability Assessment that compares the total water supply sources available to the water supplier with long-term 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. The second is a Drought Risk Assessment that evaluates a drought period that lasts five consecutive water years starting from the year following when the assessment is conducted.

Metropolitan completed its Water Reliability Assessment and Drought Risk Assessment as part of the 2020 UWMP. Through the Water Reliability Assessment, Metropolitan determined that, under the conditions required by the Urban Water Management Planning Act, it has supply capabilities sufficient to meet expected demands from 2025 through 2045 under a single dry-year condition and a period of drought lasting five consecutive water years, as well as in a normal water year hydrologic condition. Metropolitan's near-term Drought Risk Assessment revealed that its supply capabilities are expected to exceed its projected water use for the year 2022. However, estimates of projected water supply and use reveal that there could be a possible shortfall of core supplies in 2021, 2023, 2024, and 2025. This shortfall is largely triggered by the assumed low supply conditions from the SWP under a repeat of the historical condition of 1988 to 1992, which is modeled at 12% for 2021, 15% for 2023, 23% for 2024, and 18% for 2025. Actual supply conditions for the next five years may prove different from historic supply conditions. The WSCP shows Metropolitan's potential shortage response actions if such shortfalls were to happen. The Drought Risk Assessment projected supplies and demands for the years 2021 through 2025 using the driest five-year sequence.

Metropolitan's principal sources of water supplies are the SWP and the Colorado River. Metropolitan receives water delivered from the SWP under State Water Contract provisions, including contracted supplies, use of carryover storage in San Luis Reservoir, and surplus supplies. Metropolitan holds rights to Colorado River water for CRA diversion at Lake Havasu. Water management programs supplement these Colorado River supplies. To secure additional supplies, Metropolitan has groundwater banking partnerships and water transfer and storage arrangements within and outside its service area.

Hydrologic conditions and environmental regulations can have a significant impact on Metropolitan's imported water supply sources. For Metropolitan's SWP supplies, precipitation in California's northern Sierra Nevada during the fall and winter helps replenish storage levels in Lake Oroville, a key SWP facility. The source of Metropolitan's Colorado River supplies is primarily the watersheds of the Upper Colorado River Basin in the states of Colorado, Utah, and Wyoming. Although precipitation is primarily observed in the winter and spring, summer storms are common and can affect water supply conditions. Hydrologic variability, potential climate change, and regulatory risk are embedded in Metropolitan's modeling efforts. Metropolitan's modeling utilizes historical hydrologic conditions from 1992 to 2017 to simulate expected demands on Metropolitan supplies, as well as capacities and constraints of its storage facilities and supply programs. While potential impacts from climate change remain subject to study and debate, climate change is among the uncertainties that Metropolitan seeks to address through its various planning processes. Metropolitan's 2020 IRP is further addressing ways to account for and mitigate these uncertainties.

As demonstrated by the findings of both the Water Reliability Assessment and the Drought Risk Assessment, Metropolitan is able to mitigate the challenges posed by hydrologic variability, potential climate change, and regulatory risk on its imported supply sources through the significant storage capabilities it has developed over the last two decades, both dry-year and emergency storage.

### **A.4.3. Annual Water Supply and Demand Assessment Procedures**

As an urban water supplier, Metropolitan is required under CWC Section 10632(a)(2) to prepare and submit an "annual water supply and demand assessment" (Annual Assessment). The Annual Assessment is a determination of Metropolitan's near-term outlook for supplies and demands and how a perceived shortage may relate to WSCP shortage stage response actions in the current calendar year. This determination will be based on known circumstances and information available to Metropolitan at the time of analysis. Starting in 2022, the Annual Assessment will be due by July 1 of every year, as indicated by CWC Section 10632.1. CWC Section 10632.1 also states that "[a]n urban water supplier that relies on imported water from the State Water Project or the Bureau of Reclamation shall submit its annual water supply and demand assessment within 14 days of receiving its final allocations, or by July 1 of each year, whichever is later." The Annual Assessment and related reporting are to be conducted based on the procedures described in this WSCP. This section describes Metropolitan's procedures for conducting the Annual Assessment, which include: (1) the written decision-making process to determine water supply reliability; and (2) the key data inputs and assessment methodology to evaluate water supply reliability for the current year and one dry year.

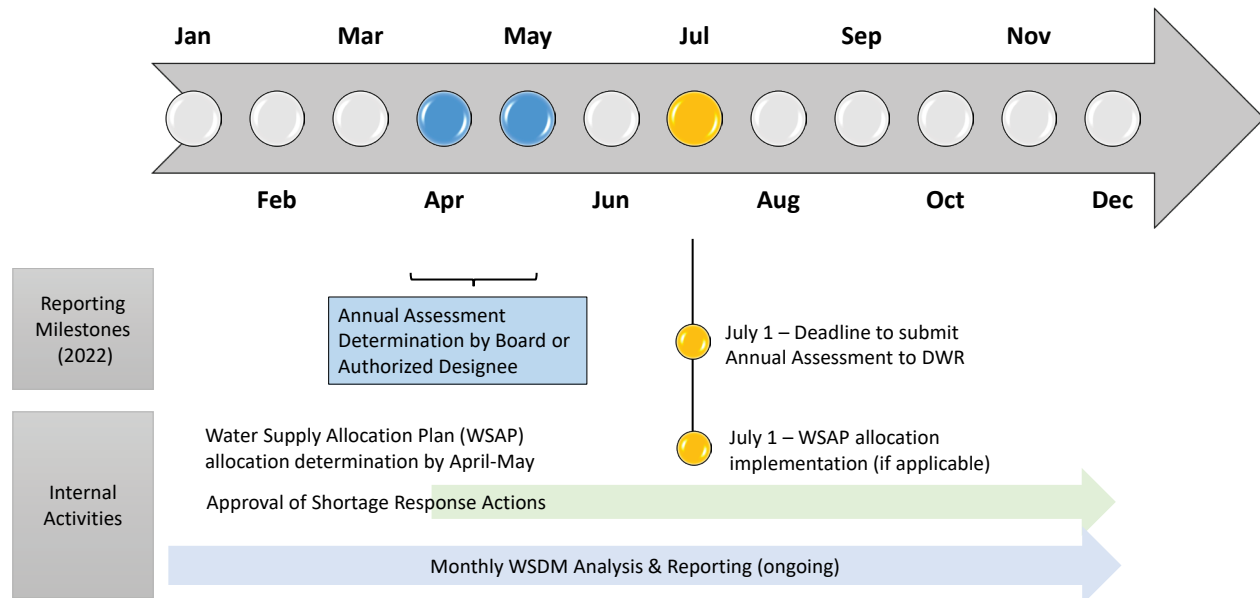
#### **Steps to Approve the Annual Assessment Determination**

The Annual Assessment will be primarily based on Metropolitan's ongoing WSDM supply-demand tracking process which is exhibited in monthly reporting to the Board of Directors throughout the year. WSDM planning activities involve examination of developing demand and supply conditions for the calendar year, as well as considerations of potential actions consistent with the WSDM Plan. These monthly analyses provide key information for Metropolitan to manage resources to meet a range of estimated demands and adjust to changing conditions throughout the year.

As a water supply wholesaler, Metropolitan's water demands are a function of retail-level demands and local water production. Water from Metropolitan serves as a supplemental source of supply for its 26 member agencies. For many member agencies, their primary source of water is produced locally from groundwater basins, surface reservoirs, recycled water projects, groundwater recovery projects, and seawater desalination. When local supplies are not enough to meet retail demands, member agencies purchase supplemental water from Metropolitan. Some member agencies rely heavily on Metropolitan due to limited local supplies. As described below, Metropolitan collects estimates of projected consumptive and replenishment water demands from its member agencies. This information is adjusted to determine unconstrained demands for the purpose of the Annual Assessment shortage percentage evaluation.

By June, Metropolitan staff will present a completed Annual Assessment for approval by the Board of Directors or by the Board's authorized designee with expressly delegated authority for approval of Annual Assessment determinations. This presentation will include a request that the approval of the Annual Assessment determination also appropriately triggers any recommended specific shortage response actions resulting from the assessment. Upon approval, Metropolitan staff will then formally submit the Annual Assessment to DWR by July 1. Figure A.4-1 provides a graphic representation of the decision-making process.

**Figure A.4-1  
Sample Annual Assessment Decision-Making Timeline**



### **Data Inputs and Assessment Methodology**

This section describes how Metropolitan will evaluate water supply reliability for the current year and one dry year for the purpose of the Annual Assessment. The Annual Assessment determination will be based on considerations of available core water supplies, unconstrained water demand, and infrastructure considerations. The difference between core water supplies and unconstrained demand will be used to determine what, if any, shortage stage is expected under the WSCP framework. The standard shortage stage percentage will be calculated by dividing the difference between core supplies and unconstrained demand by unconstrained demand. This calculation will be performed separately for anticipated current year conditions and for an assumed dry year condition.

### **Locally Applicable Evaluation Criteria**

Because shortages are based on the difference between expected core supplies and unconstrained demand under current year and dry year conditions, the locally-applicable evaluation criteria to be used in the Annual Assessment for determining a shortage include the following:

- Characterization of current year and dry year scenarios based on best-available data, including anticipated hydrologic conditions for Metropolitan's supply source watersheds in the Colorado River basin and Northern California, as well as for local conditions in Metropolitan's service area in Southern California.
- Estimation of available core supplies (see below) for current year and dry year scenarios
- Estimation of unconstrained demands (see below) for current year and dry year scenarios



Together, these three criteria provide the necessary information to calculate shortage percentages by dividing the difference between core supplies and unconstrained demand by unconstrained demand, under current year and dry year scenarios. These criteria findings will also be given additional context and influenced by infrastructure considerations discussed below which will differ from year to year.

The information and analyses that comprise the Annual Assessment will be based on ongoing planning processes that include the monthly WSDM supply-demand reporting. The Annual Assessment represents a mid-year evaluation at a given point in time; even after formal approval and submittal of the Annual Assessment determination by July 1, Metropolitan will continue to monitor emerging supply and demand conditions and take appropriate actions consistent with the flexibility and adaptiveness inherent to this WSCP. Some locally-applicable conditions that affect Metropolitan's wholesale supply and demand, such as the Higher Priority Water Use Adjustment for Colorado River use (see below), local supply production, annual SWP allocations, the status of Metropolitan storage accounts, the status of the local groundwater basins, changed water use practices, and local economic activity entail a high degree of uncertainty and can differ significantly from earlier projections throughout the year.

### ***Description and Quantification of Each Source of Water Supply (Core Supplies)***

Metropolitan's core water supplies are counted as the supply component of the Annual Assessment. Core supplies include estimated water supplies from the Colorado River and the SWP for the current year. Imported core supplies vary from year to year and are influenced by annual weather and hydrology, as well as demand by other higher priority users and operational and regulatory factors.

Because core supplies are used every year, they are differentiated from the WSCP's shortage response actions for supply augmentation; supply augmentation actions are comprised of Metropolitan's portfolio of water storage reserves and flexible supply sources that are available on an as-needed basis.

Metropolitan's core supplies come from several programs, which are shown in Table A.4-3 and described below.

**Table A.4-3  
Core Water Supplies**

Source	Core Supply
<b>Colorado River</b>	Colorado River Basic Apportionment Higher Priority Water Use Adjustment to Colorado River Basic Apportionment IID/MWD Conservation Program PVID Following Program Bard Water District Seasonal Following Program Lower Colorado Water Supply Project Exchange with SDCWA Exchange with the United States
<b>State Water Project</b>	MWD SWP Table A SWP Article 21 Interruptible Supplies SWP Port Hueneme Lease of Ventura Table A Desert Water Agency/Coachella Valley Water District/Metropolitan Water Exchange and Advance Delivery Programs San Gabriel Valley Municipal Water District Program

## **Colorado River**

### *Colorado River Basic Apportionment*

Metropolitan built, owns, and operates the 242-mile CRA. The CRA originates at Lake Havasu on the Colorado River and winds through a series of pump stations and reservoirs through the California desert to its terminal reservoir at Lake Mathews in Riverside County. The CRA has a full delivery capacity of about 1.25 MAF.

The state of California holds a 4.4 MAF per year normal apportionment to Colorado River water. Metropolitan has the Fourth Priority right to normal apportionment of 550,000 AF per year of the State's normal apportionment. Metropolitan also holds the Fifth Priority right for an additional 662,000 AF per year which is utilized during surplus conditions or when supplies from other Colorado River users are available.

### *Higher Priority Water Use Adjustment to Metropolitan's Colorado River Basic Apportionment*

Entitlements to use Colorado River water in California under priorities 1, 2, and 3 are limited to 3.85 MAF per year. Priority 3(a) is held by the Imperial Irrigation District and the Coachella Valley Water District (CVWD) totaling 3.43 MAF. After accounting for contractual conservation and transfers, any unused volume available to Priority 3(a) becomes available for use by Metropolitan. Of the 3.85 MAF, the remaining 420,000 AF is available for use under priorities 1, 2, and 3(b) held by the Palo Verde Irrigation District and the Yuma Project lands within California. Any unused amount from this volume is available for use by Metropolitan,

however, Metropolitan must forego its otherwise available Colorado River supplies to meet annual uses under priorities 1, 2, and 3(b) that are in excess of 420,000 AF. Lastly, there are additional high-priority “present perfected rights” within California not incorporated into the priorities, for which Metropolitan must forego its otherwise available Colorado River supplies to meet uses of present perfected rights that exceed 14,500 AF. The net sum of these volumes is the “higher priority water use adjustment” to Metropolitan’s base supply.

#### *Imperial Irrigation District-Metropolitan Conservation Program*

Since 1988, Metropolitan has funded water conservation programs within Imperial Irrigation District’s (IID) service area. The amount of water conserved from these programs is then transferred to Metropolitan. Conservation approaches range from distribution system improvements (such as canal lining, spill capture and the installation of non-leak irrigation gates) to efficient on-farm water management practices (such as delivering water to farmers on a 12-hour rather than a 24-hour basis). Through this program, a total of 105,000 AF per year of water is conserved and made available to Metropolitan.

#### *Palo Verde Irrigation District Land Management, Crop Rotation and Water Supply Program*

In 2005, Metropolitan entered a 35-year program with the Palo Verde Irrigation District (PVID). Under the program, participating farmers in PVID are paid to reduce their water use by leaving acreage unirrigated. A base amount of 25 percent of the program acreage must be fallowed every year. Metropolitan may elect to call for additional acreage to be fallowed up to 90.3%. Fallowing calls must be made at least one year in advance by July 31 of each year and would take effect on August 1 of the following year. The reduced consumptive use due to fallowed lands reduces uses under priorities 1, 2, and 3(b), thereby increasing the Colorado River water supply available to Metropolitan. The fallowing program saves a minimum of 33,000 AF per year and up to 133,000 AF in certain years.

#### *Metropolitan/Bard Seasonal Fallowing Program*

At its December 2019 meeting, Metropolitan’s Board authorized a 7-year seasonal fallowing program with the Bard Water District (Bard). Under the program, participating farmers in Bard are being paid to reduce their water use by not irrigating a portion of their land. A maximum of 3,000 acres can be fallowed in any given year. Under the terms of the QSA, water savings within the Bard service area are made available to Metropolitan. Bard Unit, as part of the Yuma Project, has the first priority for Colorado River water under the water delivery contracts with the USBR. Implementation of the program began in March 2020. It is estimated that the Seasonal Fallowing Program would provide up to 6,000 AF per year of additional Colorado River water. This water would be available in any year as needed and in accordance with the provisions described in the agreements with Bard Unit farmers and Bard.

#### *Lower Colorado Water Supply Project*

Groundwater is pumped by the Lower Colorado Water Supply Project near the All-American Canal and is discharged to the Canal. IID reduces its net diversions of Colorado River water by an amount equal to the amount of Project water discharged into the Canal, permitting entities along the Colorado River that do not have rights or have insufficient rights to divert Colorado River water to obtain a supply of water. In 2007, Metropolitan entered into a contract with the USBR and the City of Needles to utilize the unused Project capacity.

### *Exchange with the San Diego County Water Authority (SDCWA)*

SDCWA has acquired conserved Colorado River water reaching an annual volume of 277.7 TAF by 2023. SDCWA makes this water available at Lake Havasu for Metropolitan diversion, where Metropolitan takes possession of the water and provides a matching volume from Metropolitan's blended supplies to SDCWA by exchange in equal monthly amounts. The conserved water is acquired by SDCWA through its transfer agreement with IID and from the lining of the All-American and Coachella canals.

Under the transfer agreement with IID, the stabilized annual transfer volume of 200 TAF is generated from conservation of water through on-farm efficiency conservation arrangements made by IID with its customers and other system efficiency measures.

The Coachella Canal Lining Project consists of a 35-mile concrete-lined canal, including siphons, which replaced an earthen canal. The project was completed in December 2006 and conserves 30,850 AF annually. The All-American Canal Lining Project consists of a concrete-lined canal constructed parallel to 23 miles of earthen canal and was completed in 2009, conserving 67,700 AF annually.

Pursuant to the QSA and related agreements, the 98,550 AF of water resulting from these projects annually is allocated as follows: 16,000 AF to the San Luis Rey Settlement Parties in San Diego County, 77,700 AF to SDCWA, and 4,850 AF for Coachella Canal Lining Project mitigation.

### *Exchange with the United States*

Of the 16 TAF allocated to the San Luis Rey Settlement Parties from the All-American and Coachella canal lining projects, the United States furnishes this water at Metropolitan's Colorado River Intake on Lake Havasu. Metropolitan takes possession of the water and by exchange delivers an equal volume of Metropolitan's blended supplies to SDCWA. By separate agreement, SDCWA conveys the water to the San Luis Rey Settlement Parties. So long as water conserved by the All-American Canal Lining Project and Coachella Canal Lining Project is allocated to and available for use by the San Luis Rey Settlement Parties, the United States will make 16 TAF available for diversion by Metropolitan in perpetuity.

## **State Water Project**

### *Table A Contract Amount*

In accordance with its participation contract with DWR, Metropolitan's basic contract amount is for 1,911,500 AF per year. This represents the amount of water supply that would be available to Metropolitan in years where there is sufficient water supply for the SWP to deliver 100 percent of its total contract amounts. The amount of supply actually available on an annual basis is allocated to the State Water Contractors based on their proportionate Table A amounts.

DWR estimates the amount of supplies that are available each year. Metropolitan uses a forecasting method for SWP deliveries based on historical patterns of precipitation, runoff and actual deliveries of water. Annual SWP allocations have ranged from 5 percent to 100 percent of the Table A contract amounts.

### *Article 21 Interruptible Supplies*

Metropolitan has a contract to water supplies that are made available on an intermittent basis. Storm flows can occasionally make water supplies available that are in excess to the

Table A allocation. State Water Contractors can take delivery of these supplies, with their rights being based on their proportional Table A contract amounts. Historically, Article 21 interruptible supplies have ranged from 0 to 240,000 AF annually.

#### *SWP Port Hueneme Lease of Ventura Table A*

Metropolitan has a right to delivery of up to 1,850 AF of Table A supply from the Ventura County Watershed Protection District (Ventura), one of 29 SWP contractors, via a sublease agreement with the Port Hueneme Water Agency (Port Hueneme). United Water Conservation District, one of three agencies holding a contract right to Ventura Table A supply, leases this portion of their total 5,000 AF of Table A supply to Port Hueneme, which in turn subleases the Table A supply to Metropolitan. The long-term lease is a condition of the 1996 annexation of the Port Hueneme service area to Calleguas Municipal Water District and Metropolitan. This water supply is in addition to Metropolitan's Table A, and the amount available each year is determined by the SWP allocation, with 1,850 AF available at a 100 percent allocation.

#### *Desert Water Agency/Coachella Valley Water District/Metropolitan Water Exchange and Advance Delivery Programs*

The Desert Water Agency (DWA) and CVWD, both in Riverside County, have rights to SWP deliveries, but do not have any physical connections to the SWP facilities. Both agencies are adjacent to the CRA. For DWA and CVWD to obtain water equal to their SWP allocations, Metropolitan has agreed to exchange an equal quantity of its Colorado River water for DWA and CVWD's SWP water. DWA has a SWP Table A contract right of 55.75 TAF per year, and CVWD has a SWP Table A contract right of 138.35 TAF per year, for a total of 194.1 TAF per year. Additionally, CVWD has a long-term water supply agreement for 9.5 to 16.5 TAF annually from Rosedale Rio-Bravo Water Storage District.

Under the existing agreements, Metropolitan provides water from its CRA to DWA and CVWD in exchange for SWP deliveries. Metropolitan can deliver additional water to its DWA/CVWD service connections, permitting these agencies to store water. When supplies are needed, Metropolitan can then receive its full Colorado River supply, as well as the SWP allocation from the two agencies, while the two agencies can rely on the stored water for meeting their water supply needs. The amount of DWA and CVWD SWP Table A water available to Metropolitan depends on total SWP deliveries and varies from year to year.

In addition to their Table A and long-term water supplies, DWA and CVWD, subject to available capacity, may take delivery of SWP supplies available under Article 21, the Turn-back Pool Program, and non-SWP water supplies they may acquire and convey through the SWP facilities. These other supplies are delivered to DWA and CVWD by exchange with Metropolitan in the same manner as Table A deliveries. DWA and CVWD are participants in the Yuba Dry Year Water Purchase Program. Additionally, DWA participated in the 2009 Drought Water Bank and the 2015-2016 Multi-Year Water Pool Demonstration Program.

#### *San Gabriel Valley Municipal Water District Program*

The San Gabriel Valley Municipal Water District Program allows Metropolitan to exchange supplies to provide additional water for normal and dry year needs. Under this program, Metropolitan delivers supplies to the City of Sierra Madre, a San Gabriel Valley Municipal Water District member agency. In exchange for Metropolitan delivering one AF, San Gabriel Valley Municipal Water District returns two AF to Metropolitan in the Main San Gabriel Basin, up to 5 TAF. For any exchange amount less than 5 TAF, Metropolitan purchases the balance of the 5 TAF. The program provides increased reliability to Metropolitan by allowing additional



water to be delivered to Metropolitan member agencies that rely upon the Main San Gabriel Basin for their supplies – Three Valleys Municipal Water District and Upper San Gabriel Valley Municipal Water District.

### **Unconstrained Demands**

For the purpose of the Annual Assessment and WSCP, CWC Section 10632(a)(2)(B)(i) directs Metropolitan to use current year “unconstrained demand” when assessing water supply reliability. The WSCP and Annual Assessment define unconstrained demand as expected water use in the current assessment year, based on recent water use, and 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 multi-year drought. WSCP shortage response actions, if any are in place, that result in extraordinary demand reductions in the current year to constrain demand are inherently extraordinary; routine activities such as ongoing conservation programs and regular operational adjustments are not considered as constraints on demands.

To forecast near-term demands, Metropolitan begins by gathering data from its member agencies. In July of each year, member agencies submit their five-year demand forecasts to Metropolitan. Metropolitan uses this information as the foundation for forecasting demands. As the year progresses, the member agency forecasts are compared to the current demand trend. This comparison allows Metropolitan to adjust member agency forecasts to current conditions, while collaborating with member agencies as needed.

Metropolitan builds upon member agency demand projections to develop its own near-term forecast for its monthly WSDM supply-demand reporting. This forecast considers additional factors such as historical demand trends, changes in local supply production, weather trends, water-use efficiency trends, retail demand estimates, and updated estimates from member agencies.

Because these forecasted demands would be “constrained” observed demands rather than unconstrained demands, Metropolitan will adjust its near-term demand forecast for the Annual Assessment to account for extraordinary demand management measures that Metropolitan may intend or have already put into effect for the current year. Extraordinary demand management measures may include intensified communication and public outreach, and shortage allocations to its member agency customers through implementation of Metropolitan’s WSAP. Non-extraordinary water savings from regular conservation and community outreach activities are considered part of Metropolitan’s baseline demands and are not counted again for assessments of unconstrained demand.

### **Water Conditions for Current Year Available Supply Considering Current Year Conditions and One Dry Year**

CWC 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 Metropolitan’s annual water supply and unconstrained demand using: 1) current year conditions, and 2) assumed dry year conditions. Accordingly, the Annual Assessment’s shortage analysis will present separate sets of findings for the current year and dry year scenarios. The CWC does not specify the characteristics of a dry year, allowing discretion to the Supplier. Metropolitan will use this discretion to refine and update its assumptions for a dry year scenario in each Annual Assessment as information becomes available.

In the 2020 UWMP, the “single dry year” is characterized to resemble conditions as a year in which conditions reflect the lowest water supply available to the Supplier. 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. Supply and demand analyses for the single-dry year case was based on conditions affecting the SWP as this supply availability fluctuates the most among Metropolitan's sources of supply. Based on the 96-year period, 1977 was the single driest year for SWP supplies to Metropolitan. In addition, staff analysis of the 8-river index indicated that 1977 was the single driest year from 1922 through 2017. The 8-river index is used by DWR and other water agencies as an estimate of the unimpaired runoff (or natural water production) of the Sacramento and San Joaquin River basins, which are sources of water for the SWP.

### **Infrastructure Considerations**

The Annual Assessment will consider any infrastructure issues that may pertain to near-term water supply reliability, including repairs, construction, and environmental mitigation measures that may temporarily constrain capabilities, as well as any new projects that may add to system capacity.

Metropolitan operates a distribution system that is flexible and adaptable allowing delivery of supplies from a combination of SWP, Colorado River, and regional storage sources to meet demands throughout its service area, as shown in Figure A.4-2. System distribution capabilities and limitations can add complexity to near-term reliability. For example, a portion of Metropolitan's service area currently cannot be served by Colorado River supplies. In the event of very low SWP supplies and available storage along the SWP system, Metropolitan's operations may be acutely challenged to meet SWP-only demands even though in that same year total supplies including Colorado River supplies may exceed total demands.

Metropolitan also has five regional water treatment plants, with capacities presented in Table A.4-4. Portions of Metropolitan's service area may receive water treated by one or a combination of several of these water treatment plants. Over the last 40 years, Metropolitan effectively delivered to its member agencies water supplies to meet demands ranging from 1.2 MAF per year to over 2.5 MAF per year.

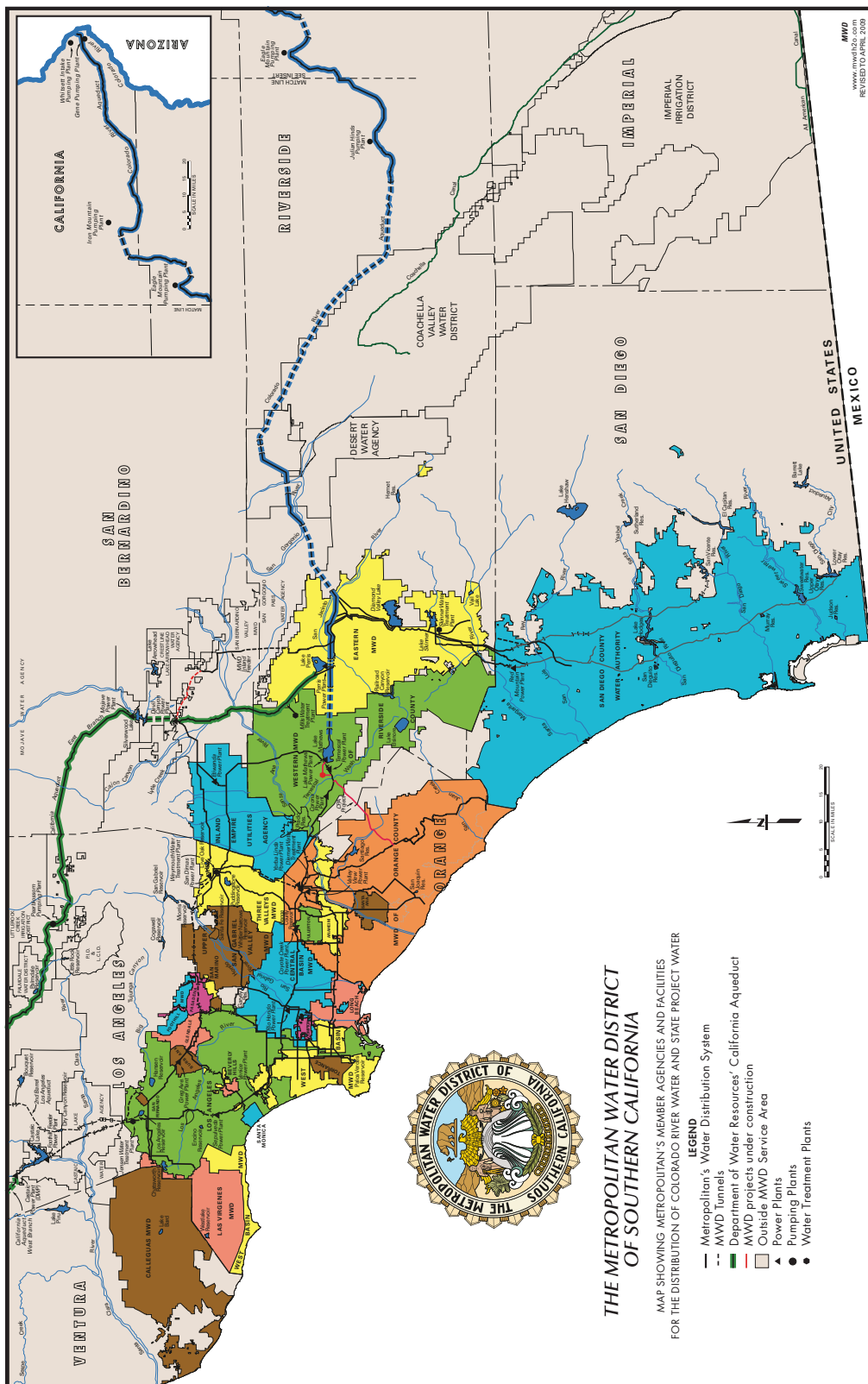
**Table A.4-4  
Metropolitan's Water Treatment Plants**

<b>Water Treatment Plant</b>	<b>Capacity (in MGD)</b>
Jensen	750
Weymouth	520
Diemer	520
Mills	220
Skinner	350

Note: Rated capacity. Effluent capacities may be less to account for backwash.

Metropolitan and its member agencies continue to implement system improvements and modifications to effectively increase system flexibility during both normal operations when imported supplies are available and during extraordinary times when SWP supplies are reduced to maximize the use of more readily available Colorado River water and Diamond Valley Lake supplies.

**Figure A.4-2**  
**Metropolitan's Service Area**



Throughout each year, Metropolitan regularly carries out preventive and corrective maintenance of its facilities. Metropolitan plans and performs shutdowns to inspect and repair pipelines and facilities and support capital improvement projects. These shutdowns involve a high level of planning and coordination within Metropolitan, as well as with member agencies, other affected organizations, contractors, and the community. These shutdowns are scheduled to ensure that major portions of the distribution system are not out of service at the same time. Operational flexibility within Metropolitan's system and the cooperation of member agencies allow shutdowns to be successfully completed while continuing to meet all system demands.

Metropolitan's Infrastructure Reliability Strategy helps to ensure long-term reliable performance of the system in an efficient and cost-effective manner. Infrastructure reliability is addressed through three programs: the Maintenance Management Program, the Infrastructure Protection Plan, and the Dam Safety Program. The activities performed under these programs allow for Metropolitan to extend the life span of its facilities and equipment and improve the overall reliability of the entire conveyance, treatment, and distribution system. In addition, seismic resiliency issues are addressed in the Seismic Risk Assessment and Mitigation Plan, which is included in Appendix 8 to the 2020 UWMP and incorporated herein by reference.

In the event that Metropolitan anticipates that an infrastructure issue is likely to impede or expand Metropolitan's capability to convey, treat, or distribute water during the current year, then the issue would be documented, and the determination of water reliability in the Annual Assessment would be adjusted accordingly.

#### **Other Factors**

Water quality is of paramount importance to water supply reliability. Metropolitan owns and operates five water treatment plants. Metropolitan is a national leader in providing safe drinking water that meets increasingly stringent standards, testing for over 400 constituents and performing nearly 200,000 water quality tests annually on samples gathered throughout its distribution system. Metropolitan's Water Quality Laboratory analyzes these samples to ensure that Metropolitan's delivered water meets or surpasses all state and federal drinking water standards. Because treatment to remove specific contaminants can be more costly than measures to protect water at the source, Metropolitan also actively supports improved watershed protection programs for its source waters in the Colorado River and SWP. For the Annual Assessment, any known issues related to water quality will be considered for their potential effects on water supply reliability.

#### **A.4.4. Shortage Levels and Shortage Response Actions**

##### **Six Standard Water Shortage Levels**

As required by California Water Code Section 10632(a)(3)(A), the WSCP is framed around six standard water shortage levels that correspond to progressive ranges of up to 10, 20, 30, 40, and 50 percent shortages and greater than 50 percent shortages. As shown in Table A.4-5, each of the six shortage levels represents an increasing gap between Metropolitan's estimated core supplies and unconstrained demand as determined in the Annual Assessment. As explained above, shortage percentages will be calculated by dividing the difference between core supplies and unconstrained demand by unconstrained demand. This calculation will be performed separately for anticipated current year conditions and for assumed dry year conditions. Shortage levels also apply to catastrophic interruption of water supplies, including, but not limited to, a regional power outage, an earthquake, and other emergency events. The shortage levels are defined in terms of the percent shortfall of supplies against demands.

##### **Shortage Response Actions**

California Water Code Section 10632(a)(4) requires the WSCP to specify shortage response actions that align with the defined shortage levels, and include, at a minimum, all of the following:

- Locally appropriate supply augmentation actions
- Locally appropriate demand reduction actions to adequately respond to shortages
- Locally appropriate operational changes
- Additional, mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions and appropriate to the local conditions (Not applicable to Metropolitan)
- An estimate of the extent to which the gap between supplies and demand will be reduced by implementation of each action.

As indicated in Table A.4-5, shortage responses will be customized to meet the circumstances for the particular shortage. Because circumstances can change at any time, Metropolitan's shortage responses actions will be adjusted accordingly throughout the year. To determine specific actions that would be taken at each standard shortage level, Metropolitan will evaluate conditions specific to cost, timing, distribution needs and capabilities, and other variables that include SWP allocation, Colorado River conditions, demand reduction measures, supply program take capacities, and storage balances.

Shortages are characterized not merely by shortfalls in annual core water supplies, but also by the water balances in Metropolitan's storage programs. Thus, a 10 percent shortfall in core supplies could be met entirely with stored water if storage levels are high. If storage levels are already depleted, the same shortfall in core supplies could potentially require a more complex mix of supply augmentation and demand reduction actions. In the most severe situations, allocating shortages to member agencies through the WSAP would address any remaining shortages not already mitigated by supply augmentation and lesser demand reduction actions.



Metropolitan has invested extensively in a diverse portfolio of supply sources and system resiliency to prepare for a wide range of possible challenging conditions. Metropolitan follows the principles of its WSDM Plan, which was adopted in 1999 and provides policy guidance for managing regional water supplies to achieve reliability. It identifies a broad sequence of actions during surpluses and shortages to minimize probability of severe shortages, based on detailed modeling of Metropolitan's existing and expected resource mix. The WSDM Plan recognizes the link between surplus and shortages and integrates planned operational actions with respect to both conditions. The WSDM Plan is included as Attachment A to this document.

**Table A.4-5**  
**Shortage Stages and Response Actions**

Shortage Stage	Shortage Percentage	Shortage Response
<b>1</b>	Up to 10%	<ul style="list-style-type: none"> <li>Take from Storage</li> <li>Execute Flexible Supplies</li> <li>Implement Voluntary Demand Reduction</li> <li>Implement Water Supply Allocation Plan</li> <li>0 to 100% met by Storage</li> <li>0 to 100% met by Flexible Supplies</li> <li>0 to 20% of total retail water use met by implementing Communication Plan</li> <li>0 to 50% of total base demand met by WSAP supply allocation</li> </ul>
<b>2</b>	10% to 20%	<ul style="list-style-type: none"> <li>Take from Storage</li> <li>Execute Flexible Supplies</li> <li>Implement Voluntary Demand Reduction</li> <li>Implement Water Supply Allocation Plan</li> <li>0 to 100% met by Storage</li> <li>0 to 100% met by Flexible Supplies</li> <li>0 to 20% of total retail water use met by implementing Communication Plan</li> <li>0 to 50% of total base demand met by WSAP supply allocation</li> </ul>
<b>3</b>	20% to 30%	<ul style="list-style-type: none"> <li>Take from Storage</li> <li>Execute Flexible Supplies</li> <li>Implement Voluntary Demand Reduction</li> <li>Implement Water Supply Allocation Plan</li> <li>0 to 100% met by Storage</li> <li>0 to 100% met by Flexible Supplies</li> <li>0 to 20% of total retail water use met by implementing Communication Plan</li> <li>0 to 50% of total base demand met by WSAP supply allocation</li> </ul>
<b>4</b>	30% to 40%	<ul style="list-style-type: none"> <li>Take from Storage</li> <li>Execute Flexible Supplies</li> <li>Implement Voluntary Demand Reduction</li> <li>Implement Water Supply Allocation Plan</li> <li>0 to 100% met by Storage</li> <li>0 to 100% met by Flexible Supplies</li> <li>0 to 20% of total retail water use met by implementing Communication Plan</li> <li>0 to 50% of total base demand met by WSAP supply allocation</li> </ul>
<b>5</b>	40% to 50%	<ul style="list-style-type: none"> <li>Take from Storage</li> <li>Execute Flexible Supplies</li> <li>Implement Voluntary Demand Reduction</li> <li>Implement Water Supply Allocation Plan</li> <li>0 to 100% met by Storage</li> <li>0 to 100% met by Flexible Supplies</li> <li>0 to 20% of total retail water use met by implementing Communication Plan</li> <li>0 to 50% of total base demand met by WSAP supply allocation</li> </ul>
<b>6</b>	More than 50%	<ul style="list-style-type: none"> <li>Take from Storage</li> <li>Execute Flexible Supplies</li> <li>Implement Voluntary Demand Reduction</li> <li>Implement Water Supply Allocation Plan</li> <li>Take from Emergency Storage, if needed</li> <li>0 to 100% met by Storage</li> <li>0 to 100% met by Flexible Supplies</li> <li>0 to 20% of total retail water use met by implementing Communication Plan</li> <li>0 to 50% of total base demand met by WSAP supply allocation</li> <li>Take from emergency storage during a catastrophic event</li> </ul>

## ***Supply Augmentation Actions***

Generally, Metropolitan's first response to any gap between core supplies and demand is to make optimal use of its supply augmentation options consisting of draws from flexible supply programs and storage reserves listed in Table A.4-6. To supplement its core water supplies from the SWP and Colorado River, Metropolitan has developed and actively manages a portfolio of water supply programs, including water transfer, storage and exchange agreements, the supplies created by which are conveyed through available CRA capacity or the California Aqueduct. Metropolitan pursues voluntary water transfer and exchange programs with other entities to help mitigate supply/demand imbalances and provide additional dry-year supply sources. Metropolitan has also developed significant storage capacity in reservoirs and groundwater banking programs both within and outside of the Southern California region. In a hypothetical single dry year assessment within the 2020 Urban Water Management Plan, Metropolitan could take up to approximately 1.8 MAF in a single year to meet dry year demands. Actual take capabilities would depend on various factors including water balances, location, and operational constraints.

### ***Flexible Supplies***

Metropolitan can augment its core Colorado River supplies through agreements with other agencies that have rights to use such water. Metropolitan determines the delivery schedule of these supplies throughout the year based on changes in the availability of SWP and to a smaller extent the higher priority water use adjustment for Colorado River water.

In addition to the basic SWP contract provisions, Metropolitan has other contract rights that facilitate augmentation of its SWP supply. Each SWP contractor has the right to use the facilities to move water supplies associated with agreements, water transfers, and water exchanges at the incremental cost. Metropolitan utilizes this ability in conveying water obtained through a number of agreements and exchanges with agencies in California's Central Valley north of the Bay-Delta and southward to Southern California.

### ***Storage***

A key component of Metropolitan's water supply capability is the amount of water in Metropolitan's storage facilities and programs in which surplus amounts of water in normal and wet years are captured until needed to augment core supplies. Metropolitan has developed an extensive storage portfolio made up of units within and outside Metropolitan's service area that includes both dry-year and emergency storage capacity. Such units, totaling approximately 6.0 MAF, include reservoirs, conjunctive use and other groundwater storage programs within the service area, and groundwater and surface storage accounts outside the service area delivered through the CRA or SWP. Consistent with the Emergency Storage Objective that was revised in 2019, approximately 750,000 AF of total stored water is emergency storage reserved for use in the event of supply interruptions from earthquakes or similar emergencies.

**Table A.4-6  
Supply Augmentation Actions: Flexible Supplies and Storage**

Source	Flexible Supplies	Storage
<b>Colorado River</b>		Lake Mead Intentionally Created Surplus (ICS) Storage Program  Southern Nevada Water Agency Storage and Interstate Release Agreement  Desert Water Agency/Coachella Valley Water District Advanced Delivery Account  Imperial Irrigation District Storage
<b>State Water Project</b>	SWP Transfers: State Water Contractors Buyers Group  SWP Transfers: Yuba Accord Dry-Year Purchase  San Bernardino Valley Municipal Water District Program	SWP Carryover  DWR Flexible Storage (Castaic Lake and Lake Perris)  SWP Banking Programs
<b>In-Region</b>		Diamond Valley Lake  Lake Mathews  Lake Skinner  Conjunctive Use Programs (CUP)

### ***Demand Reduction Actions***

Demand reduction actions are extraordinary measures taken to temporarily constrain water demand during a shortage. For the purpose of the WSCP and the Annual Assessment, it is important to separate temporary reductions in demand from baseline conservation as they relate to constrained and unconstrained demands. WSCP demand reduction actions result in constrained demands. Water savings from WSCP demand reduction actions must be factored into estimates of unconstrained demands for Annual Assessment shortage determinations. Intensity of demand reduction measures will vary by the severity of shortage and availability of other cost-effective supply augmentation measures. Early demand reduction actions tend to be voluntary measures that are comprised of outreach and education actions from Metropolitan's WSCP Communication Plan (see following section A.4.5). More severe conditions may necessitate supply allocations to wholesale customers through implementation of the WSAP. Table A.4-7 shows the demand reduction measures available to Metropolitan.

**Table A.4-7**  
**Demand Reduction Actions**

Demand Reduction Actions	
<b>Voluntary Measures</b>	Implement Communication Plan (May apply to Shortage Levels 1-6, Crisis) <ul style="list-style-type: none"> <li>• Public information campaigns</li> <li>• Community outreach and media relations</li> <li>• Public opinion research</li> <li>• Interagency and intergovernmental coordination</li> </ul>
<b>Mandatory Measures</b>	Implement Water Supply Allocation Plan (May apply to Shortage Levels 1-6, Crisis)

Benefits of public information campaigns include rapid implementation and raising public awareness of the severity of the water shortage. For this reason, public information campaigns are included as a Demand Reduction Action in the WSCP. According to the American Water Works Association, water savings from this measure alone range from 5 to 20 percent, depending on the time, money, and effort spent.<sup>2</sup> If public outreach targets between 5 and 10 percent of population, then demand would be assumed to be reduced by 5 to 20 percent of the 5 to 10 percent. The size of media campaign is correlated with the number of people being reached.

#### *Implement Communications Plan*

Metropolitan's WSCP Communication Plan details Metropolitan's action-oriented strategy for education, outreach, and coordination during each WSCP standard shortage stage and in response to a catastrophic loss of supply. See the following section A.4.5 for the WSCP Communications Plan.

#### *Enhanced Conservation Program*

Although not considered as a WSCP demand reduction action because of their limited effect in the immediate term, Metropolitan administers regional conservation programs and co-funds member agency conservation programs designed to achieve greater water use efficiency in residential, commercial, industrial, institutional, and landscape uses. Metropolitan may implement extraordinary measures to temporarily enhance conservation during a shortage which include, but are not limited to, increasing rebates, reducing program eligibility requirements, working with rebate vendors to create in-store marketing and direct outreach to businesses, increasing direct install efforts with member agencies and partners, and working with water retailers and retail customers to develop onsite leak prevention programs. While the savings from conservation programs may not be realized quickly enough to mitigate the need for other shortage response actions, water-efficient device retrofit rebates, landscape conversions, and leak prevention all contribute to ongoing structural water savings. Conservation device retrofits help to recover storage in future years by lowering demands in all years, not only shortage years.

<sup>2</sup> American Water Works Association. 2019. Manual of Water Supply Practices – M60, Second Edition: Drought Preparedness and Response. p. 35



### *Water Supply Allocation Plan*

Under most conditions, Metropolitan can meet all of its service area's wholesale water needs. However, during severe water shortage situations when public information campaigns and enhanced conservation programs are insufficient to generate the needed demand reduction, Metropolitan may find it necessary to temporarily limit and allocate supplies to its member agencies. Metropolitan's WSAP allocates Metropolitan's water supplies among its member agencies, based on the principles contained in the WSDM Plan, to mitigate drawdowns from water storage reserves. The WSAP was originally approved by Metropolitan's Board in February 2008 and has been implemented three times since its adoption, most recently in April 2015. The WSAP provides a formula for equitable distribution of limited water supplies. If needed, a WSAP action is typically approved in the month of April with implementation beginning in the following July. This allows Metropolitan's member agencies time to prepare and to adjust their estimates for Metropolitan current year supply for their own WSCP Annual Assessments.

The WSAP allocation is a costly shortage response action that places acute burdens upon member agencies and the public. Other shortage response actions are generally preferred to the extent practicable. Metropolitan's overall strategy considers WSAP allocations to be a fallback option to address any remaining shortages when supply augmentation actions and other demand management measures are insufficient to meet demand reduction objectives. For reference, the WSAP is included as Attachment B to this document.

### *Operational Changes*

During shortage conditions, operations may be affected by supply augmentation or demand reduction responses. For example, Metropolitan may temporarily alter maintenance cycles, defer planned system outages, and adjust the flow and routing of water through its system to more effectively distribute available supply across the service area, including areas that are currently only able to be served by SWP water supplies.

Because of the extensive and complex nature of Metropolitan's conveyance and distribution system, and the varying levels of local supplies available among each of the member agencies, by necessity, any supply-related shortage response actions triggered under the WSCP would be carefully chosen to optimally match available resources with specific localized demands by the member agencies.

Metropolitan's diversified portfolio of water supplies presents operational opportunities and challenges during droughts. Because water resources available to the Metropolitan service area come from three geographically distinct regions – Northern California, the Colorado River, and local resources – a relatively dry year affecting one of these three regions can be offset by relatively abundant supplies from the other two regions. For example, a year of ample precipitation within Metropolitan's service area tends to depress demand and enhances local water resources, further reducing demands on imported supplies. A wet year in the Sacramento-San Joaquin watersheds increases the SWP allocation, facilitating reduced diversions from the Colorado River in favor of storing supplies in Lake Mead or in the Desert Water Agency/Coachella Valley Water District Advanced Delivery Account. Conversely, a shortfall on the SWP may require system operational modifications to maximize Colorado River diversions and the delivery of Colorado River supplies to areas normally served with SWP supplies. Metropolitan's Colorado River core supplies are relatively stable from year to year and are less subject to severe supply reductions.

### ***Additional Mandatory Prohibitions (not applicable)***

California 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. However, this item is not applicable to Metropolitan. As a regional wholesaler, Metropolitan does not dictate or control the end uses of water by retail consumers.

### ***Shortage Response Action Effectiveness***

As shown in Table A.4-5, WSCP shortage response actions will be implemented to reflect the overall conditions facing Metropolitan and the resources available in that given year. Supply augmentation actions consisting of stored water and as-needed flexible supplies are expected to address between 0 to 100 percent of anticipated shortages for any shortage stage, depending on availability of those supplies; in lesser WSCP shortage stages, it is likely that shortages can be completely addressed through supply augmentation.

Efficacy of demand reduction efforts is difficult to estimate or predict, but water savings are a function of the extent to which public information campaigns reach water users and the degree of consumer response to those messages. Given the estimate of between 5 to 20 percent effectiveness described above, in concept, up to 20 percent of retail demands could be reduced if a successful media campaign reached and influenced the entire service area population. Consistent with the WSCP Communications Plan in the following section A.4.5, anticipated shortages will involve an appropriately-sized outreach campaign to address the targeted demand reduction, which depends on the combined effectiveness of other shortage response actions.

As shown in Table A.4-8 below, the WSAP is designed to reduce demands by up to approximately 50 percent of the WSAP’s calculated base demand. The WSAP contains 10 levels of allocation, and each level is approximated to generate an additional 5 percent reduction from base demands. Table A.4-8 gives examples of estimated savings by each WSAP level using a hypothetical base demand of 1.8 MAF. Actual reductions and base demands are based on a formula that includes various factors such as actual local supply production, population growth, and conservation. The WSAP is expected to address any remaining shortage not met by other shortage response actions.

**Table A.4-8  
Water Supply Allocation Plan Levels**

WSAP Level	Approximate Percent Reduction	Example Base Demand	Estimated Demand Reduction
1	5%	1.8 MAF	90,000 AF
2	10%		180,000 AF
3	15%		270,000 AF
4	20%		360,000 AF
5	25%		450,000 AF
6	30%		540,000 AF
7	35%		630,000 AF
8	40%		720,000 AF
9	45%		810,000 AF
10	50%		900,000 AF

### ***Catastrophic Interruption of Water Supplies***

Metropolitan's Emergency Storage Objective is a planning estimate that represents the amount of water that Metropolitan would hold in storage for the region in preparation for a catastrophic earthquake that would damage the aqueducts that transport imported water supplies to Southern California, including: the Colorado River Aqueduct, both the East and West branches of the California Aqueduct, and the Los Angeles Aqueduct. Emergency storage allows Metropolitan to deliver reserve supplies to the member agencies to supplement local production. This helps avoid severe water shortages during periods when the imported water aqueducts may be out of service.

The Emergency Storage Objective considers a six- and twelve-month outage period for the imported supply aqueducts incorporating latest seismic information and operational flexibility of Metropolitan's system, a retail water demand cutback ranging from 25 to 35 percent considering the level of conservation that the region achieved during the recent drought, and an aggregated loss of 10 to 20 percent of local supplies accounting for factors that could affect local production during emergency conditions.

In 2019, Metropolitan and its member agencies completed a process to update the Emergency Storage Objective, which was set at 750,000 AF. This level of storage would prevent severe water shortages to the region given new information on expected recovery durations. The emergency storage volume represents a planning estimate for how much water Metropolitan would store for the region in preparation for a catastrophic earthquake or other disaster. It is not intended to set a basis or a policy for allocating or apportioning storage for any individual member agency.

As an additional tool, in July 2019, the Board adopted amendments to Metropolitan's Administrative Code enabling deliveries of member agency water supplies in Metropolitan's system in an emergency. These deliveries are intended to provide Metropolitan's member agencies the ability to deliver member agency water through Metropolitan's system under specific emergency conditions. Emergency deliveries can only be made if Metropolitan is unable to make deliveries to a member agency due to physical damage to Metropolitan's system resulting from a natural disaster or other emergency, and there are no alternate

means for Metropolitan or the member agency to provide service to an area without the use of a portion of Metropolitan's system.

Metropolitan's strategy for catastrophic water shortage conditions is further discussed in Appendix 8 to the 2020 UWMP and incorporated herein by reference.

### ***Emergency Freshwater Pathway (Sacramento-San Joaquin Delta)***

DWR has estimated that in the event of a major earthquake in or near the Delta, water supplies could be interrupted for up to three years, posing a significant and unacceptable risk to the California business economy. A post-event strategy would provide necessary water supply protections to avert this catastrophe. Such a plan has been coordinated through DWR, the Army Corps of Engineers, USBR, California Office of Emergency Services, Metropolitan, and the State Water Contractors. Additional information on the creation of an emergency freshwater pathway and other actions in the Delta is included in Section 2.5 of the 2020 UWMP and incorporated herein by reference.

### ***Emergency Response Plans***

Metropolitan also has two Emergency Response Plans: one dated March 2019 that has been in place long-term and is updated periodically; and a second dated September 2020, prepared pursuant to the requirements of the recently-enacted America's Water Infrastructure Act of 2018. The two plans work in conjunction. Together, Metropolitan's Emergency Response Plans present Metropolitan's organization and strategy for response 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 provide guidelines for evaluating an emergency situation, responding to an emergency, and activating Incident Command Posts and the Emergency Operations Center. They also describe the Emergency Response Organization. Although the plans provide a framework for emergency response, they do not attempt to identify and discuss every potential situation or problem that may occur during an emergency. The plans will be exercised and updated regularly.

### ***Seismic Risk Assessment and Mitigation Plan***

Although the magnitude of damages resulting from a significant seismic event are impossible to predict, Metropolitan's water conveyance and distribution facilities are designed either to withstand a maximum probable seismic event or to minimize the potential repair time in the event of damage. Metropolitan's holistic strategy for seismic resilience follows a "defense in depth" multi-layered approach for managing risk. Metropolitan's Seismic Resilience Strategy has three primary objectives:

1. Provide a diversified water supply portfolio, system flexibility, and emergency storage
2. Prevent damage to water delivery infrastructure in probable seismic events and limit damage in extreme events
3. Minimize water delivery interruptions through a dedicated emergency response and recovery organization

Beginning January 2020, CWC Section 10632.5 mandates urban water suppliers to include in their UWMPs a seismic risk assessment and mitigation plan to assess the vulnerability of each of the various facilities of a water system and mitigate those vulnerabilities. For Metropolitan, the required seismic risk assessment and mitigation plan is part of its resilience strategy and is included in Metropolitan's 2020 UWMP Appendix 9: Seismic Risk Assessment and Mitigation Plan and incorporated herein by reference.

## **A.4.5. WSCP Communications Plan**

### **Introduction**

Following the record-breaking drought of 2012-2016, Metropolitan concentrated on building on its conservation and education outreach programs to emphasize water efficiency as a sustainable way of life, rather than solely a response to dry conditions or drought. Messaging has encouraged behavioral changes that can be sustained regardless of weather and uses tools and technology that can be implemented to permanently save water in homes and businesses, particularly outdoors where up to 70% of total water use occurs. These efforts have helped solidify a conservation ethic across Southern California, supporting a \$1.5 billion investment in conservation, recycling and groundwater recovery since 1990. When combined with additional investments in storage, local supply development and programs to increase water storage reserves in wet years, the region is well positioned to withstand future droughts. Still, in response to the challenges of climate change and other abnormal supply conditions, increased water efficiency will still be necessary. And as those conditions become more prevalent, effective communication strategies and a common understanding of necessary actions between water agencies, the public, elected officials and other key stakeholders become even more important should the district need to activate the WSCP. These relationships and communication tools must be well-established to be successful. To that end, water providers should aim to communicate to customers in the following areas:<sup>3</sup>

1. Steps customers should take to plan for and protect themselves in emergency situations, ranging from abnormal to catastrophic water supply conditions
2. Actions water providers are taking to plan for and respond to these emergency situations
3. Efforts to invest and maintain critical water infrastructure
4. Steps water providers are taking to prepare for and respond to emergency situations that could impact water supplies – from drought to natural disasters

Several factors influence the communication strategies needed to address the diverse characteristics of Metropolitan's 5,200 square-mile service area, particularly when there is an urgent need for conservation. As a wholesaler serving 26 member agencies and a diverse region that is home to 19 million people, no single communication message or strategy connects with everyone in the region. Furthermore, state and local water regulations during periods of drought or supply shortages can result in a broad range of water-saving requirements and goals across the region. Qualitative research from previous droughts has also provided valuable insight on attitudes and behaviors toward water conservation, including drought fatigue, water quality concerns, increasing water rates and equity issues. These factors, though inherently complex, are conducive to collaboration that elevates the importance of drought resiliency. This section of the WSCP describes the basic communications strategies needed to help Metropolitan effectively communicate vital information for each of the six standard water shortage levels that represent changes from normal reliability. The six standard water shortage levels depicted in this communications plan correspond to:

- Progressively increasing estimated shortage conditions: up to 10, 20, 30, 40, 50, and greater than 50% shortage compared to the normal reliability conditions

---

<sup>3</sup> Source: 2019 Statewide Survey of Residential Customers Covering Water



## **Collaboration**

Collaboration with its member agencies is central to Metropolitan's outreach plans during drought, water shortages or other demand management periods. Developing and delivering a concise regional message in multiple languages is made possible through consistent coordination with member agencies and their constituents. Metropolitan's External Affairs group regularly engages and interacts with member agency staff in several capacities, including but not limited to the following groups:

- Member agency managers
- Legislative and government affairs representatives
- Water use efficiency/conservation coordinators
- Public information officers
- Education coordinators

In addition to member agency coordination, Metropolitan interacts with agencies and organizations outside of the region, including:

- Department of Water Resources
- State Water Resources Control Board
- Association of California Water Agencies
- California Municipal Utilities Association
- Colorado River Water Users Association
- California Water Efficiency Partnership
- Alliance for Water Efficiency
- Other state and federal agencies

As seen in past droughts, the methods of communication within these groups and the frequency of meetings fluctuate based on the changing needs of our member agencies and their key audiences. Water shortage conditions are ever-evolving, therefore remaining flexible yet focused not only reduces the risk of discordance, it also ensures key audiences throughout Southern California receive timely, valuable and cohesive information.

As mentioned, Metropolitan's WSCP includes six levels of potential shortage. The water-savings actions associated with each level of shortage will vary greatly, and Metropolitan recognizes the many different approaches to properly respond to each WSCP level. This section provides a general description of messaging strategies that would be implemented at each level, leading up to more focused crisis communication strategies. The plans need to be adaptable and cannot offer one-size-fits-all approaches. Metropolitan management and/or Board of Directors could also call for specific messaging strategies that address unique shortage scenarios.

## **Key Audiences**

Communicating to various stakeholders is essential during normal supply periods and becomes increasingly more involved during water shortages. Below is a list of key audiences:

- Member agencies and their customers
- General public

- State, federal and local elected officials and their district office staff
- Homeowners and renters
- Multi-family property owners/managers/landlords
- Business associations/chambers of commerce
- Commercial-industrial property owners/managers
- Landscape contractors/suppliers
- Restaurant/hotel industries
- School districts/educators/students
- Building and construction trade associations
- Community/civic leaders
- Land-use agencies
- Environmental groups
- Community-based and non-profit organizations
- Non-English-speaking populations
- Disadvantaged/under-invested communities

Communicating to these audiences requires varying levels of involvement depending on the status of supply conditions. Feedback, research, and leveraging existing relationships are central to an effective communications plan; therefore, External Affairs and Water Resource Management staff will continue to coordinate closely with member agencies, stakeholders, and governing agencies on an ongoing basis to ensure appropriate messaging is culturally competent and provided in multiple languages to reflect the region's demographics.

### **Goals and Objectives**

Metropolitan's communications goals are rooted in the following guiding principles:

- Motivate key audiences to:
  - Increase conservation
  - Follow voluntary or mandatory water use guidelines
  - Participate in water-saving incentive programs
  - Encourage family, friends, neighbors and colleagues to do all the above
- Raise awareness about:
  - Water shortage and/or drought conditions
  - Water sources, supplies and reserves
  - Local, regional and state regulations
- Educate key audiences about:
  - Water supply reliability
  - Water infrastructure and delivery
  - Water quality

- Prepare the region for:
  - Varying water supply conditions
  - Escalating supply shortage levels

### **Standard Communication**

Conservation as a way of life remains central to messaging during normal supply conditions. Regional rebate programs, indoor and outdoor water use efficiency, investments to maintain infrastructure, emergency preparedness, local supply programs, water quality, and regional supply reliability are among some of the themes that make up a normal supply period's communications mix to encourage ongoing conservation actions. Below is a snapshot of the various strategies involved:

- Media relations (news releases and advisories, interviews, op-eds)
- Social media (Twitter, Instagram, Facebook, YouTube, LinkedIn)
- Websites and Blogs
  - mwdh2o.com
  - bewaterwise.com
  - socalwatersmart.com
- Digital, print and other paid media marketing
- Search engine optimization
- E-newsletters
- Community events
- Education outreach
- Business outreach

### **Level 1 Communications – up to 10% Shortage**

This section addresses communications strategies Metropolitan uses during periods of 10% water shortage conditions. In addition to the district's ongoing communications efforts, a 10% shortage would require the following elements:

- Media relations and communications
  - Maintain media relations activities with enhanced communication about the specific need to conserve; provide media with regional water supply conditions and Metropolitan's shortage response action updates
    - Press releases, advisories, op-eds, direct outreach to media to drive earned media opportunities
    - Ethnic media outreach in multiple languages
  - Produce and distribute fact-based informational materials such as fact sheets, podcasts, and B-roll video
- Social media
  - Emphasize ways to conserve immediately (shorter showers, less watering, links to tools on bewaterwise.com, etc.), as well as continued promotion of conservation as a way

- of life initiatives such as regional water use efficiency incentives and other rebate programs including the district's Turf Replacement Program
    - Paid social media boosting to target the district's entire service area
  - Encourage member agency co-branding and messaging continuity
    - Share social media creative with the public information officer working group and conservation coordinators
- Web
  - Establish a SharePoint site for member agency and public to download all water supply and conservation materials
  - Update all Metropolitan websites with pertinent conservation and water supply information and highlight such information
  - Provide links to local watering restrictions and conservation efforts
- Member agency coordination
  - Enhance collaboration and communication with member agencies to streamline messaging
  - Involve member agencies in development of a communications plan
  - Provide regular campaign updates to member agency managers, staff and board members.
  - Provide member agencies with campaign outreach materials (newsletter articles, creative design, bill inserts, etc.) for customization and distribution
- Community outreach
  - Make water supply conditions and conservation messaging a key component of all regular community outreach
  - Make additional, specialized outreach to inform non-profit organizations and civic/community leaders about water supply conditions and conservation efforts
    - Community events/webinars
    - Non-profit organization e-newsletters
- Education outreach
  - Update district curriculum to reflect the enhanced need to conserve and make water supply conditions and conservation messaging a key component of all regular education outreach
  - Communicate to K-12 school districts and colleges/universities about the need for increased conservation
  - Provide regional water and environmental education programs with materials addressing the need for increased conservation
- Legislative and government affairs
  - Coordinate with local, state and other elected officials in the region about the need to conserve
  - Encourage officials to promote these efforts to constituents

In addition:

- Work with member agencies to target key industries or groups to raise awareness about water-use efficiency programs and regional water supply conditions
  - Restaurants
  - Hotels/motels
  - Public agencies
- Research and public opinion
  - Conduct research to gain insights on public opinion, attitudes and beliefs toward conservation and water shortage levels
  - Message testing with key audiences

#### *Level 2 Communications – up to 20% Shortage*

In a more severe supply shortage or demand management period, Metropolitan will continue actions outlined in Level 1 communications strategies, and add the following efforts, which are designed to address a 20% percent mandatory conservation under the WSCP:

- Media relations and communications
  - Paid advertising – Execute a multimedia, multilingual regional advertising campaign to reflect a more urgent message emphasizing the need for compliance with mandatory water-use restrictions. Place paid advertisements in the following platforms:
    - Out of Home (billboards, bulletins, bus shelter ads)
    - Radio
    - Television
    - Digital
    - Grassroots
  - Host press conference to discuss current water shortage conditions, shortage response actions, and outlook
  - Coordinate with other regional or state agencies for greater impact and reach
- Social media
  - Emphasize a clear and practical message conveying mandatory water-use restrictions, drought conditions and ways to save water
  - Establish more targeted and focused social media advertising strategies – targeted boosting and messaging
- Member agency coordination
  - Meet with member agencies to streamline a more urgent and serious campaign tone
  - Coordinate paid media flights with member agencies to leverage regional exposure and distribution
  - Provide multimedia and multilingual campaign materials for member agency customization



- Community outreach
  - Coordinate with community-based organizations and leaders with higher impact, reach and credibility
  - Inform, debrief and prepare community/civic leaders to become water conservation ambassadors in their respective communities
- Legislative and government affairs
  - Increase briefing activity with state and local officials on water supply conditions, shortage response actions, and water conservation advertising campaign

In addition:

- Help prepare and distribute materials about restrictions, ordinances and guidelines through stakeholder communication channels, including but not limited to:
  - Business organizations
  - Civic organizations
  - Elected officials
  - Building/plumbing/construction associations
  - Building managers
  - Landscape contractors
- Increase outreach efforts to key associations and interest groups throughout the region, emphasizing immediate conservation goals

#### *Level 3 and 4 Communications – up to 30% or 40% Shortage*

In addition to Level 2 communications strategies, the following efforts will address an even more severe shortage of 30%-40% mandatory conservation under the WSCP:

- Media relations and communications
  - Increase media relations activities, with an added emphasis on the severe regional water supply conditions, the shortage response actions triggered or expected to be triggered, and the mandatory need to conserve
  - Host news conference in multiple languages alongside high-level public officials to highlight severity and extreme measures needed
  - Continue the following with greater frequency and stronger, more critical messaging:
    - Paid advertising campaign
    - Press releases, advisories, op-eds, etc.
    - Direct media outreach offering pre-recorded radio and TV interviews
    - Ethnic media outreach in multiple languages
- Social media
  - Messaging shift to reflect severity of supply conditions and shortage response actions triggered or expected to be triggered– conservation is mandatory to maintain day-to-day activity and future supplies, quality of life now being impacted

- Web
  - Make conservation messaging front and center on all websites
- Community Outreach
  - Host a community leader briefing, bringing together representatives from community-based organizations from across the region to learn about the severity of water supply conditions
- Member agency coordination
  - Continue to streamline messaging about WSCP level escalation to ensure message continuity throughout the region
  - Help member agencies address local and mandatory conservation needs
  - Coordinate with member agencies on any updated messages and campaign activities emphasizing extreme actions that must be taken
- Legislative and government affairs
  - Outreach to legislative leadership at state and federal level to raise awareness at high levels

In addition:

- Specialized targeted outreach to:
  - Special interest groups
  - Public agencies
  - County and city departments
- Assess the goals and objectives of regional rebate programs, begin a shift toward immediate water-saving actions
- Research and public opinion
  - Conduct public opinion research studies including focus groups to determine attitudes and beliefs toward extreme conservation levels in order to effectively communicate severity of supply conditions and the mandatory need to conserve

#### *Level 5-6 Communications – 50% Shortage or more*

The severity of this level of the WSCP calls for immediate, extreme conservation measures and a focus on water use for health and safety only. As with previous levels, communications strategies at this level of the WSCP incorporate and build upon ongoing efforts.

#### Key Communications Strategies

- Consider establishing a Joint Information Center (JIC) to pool crisis communications among emergency responders and affected local, state and federal agencies
- Produce and distribute fact-based informational materials such as fact sheets, podcasts, and B-roll video
- Host a press conference to announce the severity of water shortage level and shortage response actions triggered or anticipated to be triggered, to be held in conjunction with regional and/or state emergency response and public health authorities

- Emphasize work being done by Metropolitan and its member agencies to alleviate the impacts of such a severe shortage
- Focus on the need for residential and commercial customers across the region to do their part to get through the crisis situation
- Offer vulnerable populations increased assistance, in coordination with regional emergency response teams
- Keep the media and key stakeholders informed with frequent supply condition reports
- Shift from traditional advertising campaign efforts to emergency and crisis communication approach
- Messaging is no longer conservation-focused, begin shift to crisis response communications protocols

### *Crisis Communications – Catastrophic Shortage*

In the event of a catastrophic shortage due to an infrastructure failure and/or natural disaster, Metropolitan will enact its crisis communications plan in accordance with local, regional, state and federal emergency response guidelines that ensure a coordinated effort and effective response. This plan utilizes the Standard Emergency Management System, the Incident Command System and the National Incident Management System.

### Strategic Message Development

- In an emergency, communications messages will be created in a complex environment in which the tensions of multidirectional information flows must be balanced with the need for strategic message development

### Message Dissemination

Communication efforts will center on the core identified tasks: providing information to the public and external audiences. Information dissemination tools:

- Website (mwdh2o.com, bewaterwise.com)
- Social Media (Twitter, Facebook, Instagram, YouTube)
- MetAlert Emergency Notification System + RSS Feeds
- Press Releases and statements
- Participation in joint information centers

### Information Dissemination

- Public Information
  - Activate and manage the mechanisms for responding to public requests for information via social media, telephone, in writing, or by e-mail
  - Prepare Metropolitan's telephone operators for responding to and monitoring calls related to emergency incidents; brief them and provide scripts on how to respond to questions and where to direct calls for other requests
  - Work with subject matter experts to create situation-specific fact sheets, Q&A documents and updates
  - Respond to requests and inquiries from special interest groups

- Oversee and manage Metropolitan's emergency response website if needed, in addition to mwdh2o.com, social media, telephone, and public email correspondence response systems; establish and maintain links to other emergency response websites
- Manage the development and testing of messages and materials for cultural and language requirements of special populations
- Post updates on social media channels. Monitor and respond to comments as needed/appropriate
- Member agencies, partnering agencies and elected/legislative officials:
  - The Public Information Officer (PIO) or Crisis Communications Team will communicate, as needed, with the PIOs for member agencies and other partnering agencies
  - Help organize and facilitate official meetings and briefings to provide information and receive input from member agencies, other partners or stakeholders
  - Notify legislative/elected officials as needed

#### A.4.6. Legal Authorities

This section describes the legal authorities that empower Metropolitan to implement and enforce its shortage response actions. Metropolitan is a wholesale water provider organized as a cooperative of 26 voluntary members. Metropolitan was formed pursuant to the Metropolitan Water District Act, Statutes 1969, chapter 209, codified at California Water Code, Appendix Section 109 (the "MWD Act"). Pursuant to the MWD Act, Metropolitan has the express and implied statutory authority to "[p]rovide, sell, and deliver water at wholesale for municipal and domestic uses and purposes," among other powers. (MWD Act, §§ 120, 130.) To accomplish the provision of water, Metropolitan is also expressly authorized to promote and implement conservation programs, including during times of water shortage. (MWD Act, § 130.5.)

Metropolitan also has authority under the California Water Code to implement supply shortage programs. (Cal. Water Code, §§ 350-359, 375-378.) For example, Section 375(a) of the Water Code provides:

*Notwithstanding any other provision of the law, any public entity which supplies water at retail or wholesale for the benefit of persons within the service area or area of jurisdiction of the public entity may, by ordinance or resolution adopted by a majority of the members of the governing body after holding a public hearing upon notice and making appropriate findings of necessity for the adoption of a water conservation program, adopt and enforce a water conservation program to reduce the quantity of water used by those persons for the purpose of conserving the water supplies of the public entity.*

Cal. Water Code, § 375(a). Water Code Section 375(b) also provides the authority for pricing to encourage water conservation.

*With regard to water delivered for other than agricultural uses, the ordinance or resolution may specifically require the installation of water-saving devices that are designed to reduce water consumption. The ordinance or resolution may also encourage water conservation through rate structure design.*

Metropolitan's Board of Directors has approved many policies and rules, codified in Metropolitan's own Administrative Code, which further provide Metropolitan the authority to ensure the availability of its water during times of shortages. For example, Administrative Code Section 3107 requires that any territory annexed to Metropolitan comply with Metropolitan's water use efficiency guidelines.

The Board has also ratified various policies and rules to implement a Water Supply Allocation Plan (WSAP) to address shortage conditions. Metropolitan's WSAP provides a standardized methodology for allocating supplies during times of shortage. The WSAP is authorized pursuant to the following Board actions:

- By Minute Item 43514, dated April 13, 1999, the Board adopted the WSDM Plan.
- By Minute Item 44005, dated June 17, 2000, the General Manager has the authority to reduce Interim Agriculture Water Program deliveries up to 30 percent prior to imposing any mandatory allocation under the WSDM Plan.
- By Minute Item 47393, dated February 12, 2008, the Board adopted the WSAP.
- By Minute Item 48376, dated August 17, 2010, the Board approved adjustments to the WSAP.



- By Minute Item 48803, dated September 12, 2011, the Board approved adjustments to the WSAP.
- By Minute Item 74526, dated February 11, 2014, the Board adopted the Water Supply Alert Resolution.
- By Minute Item 49979, dated December 9, 2014, the Board approved adjustments to the WSAP.

In addition to the statutes and other legal authorities set forth above, Metropolitan is empowered to implement and enforce its shortage response actions pursuant to various resolutions. For example, on April 11, 2016, Metropolitan's Board voted to adopt Metropolitan's 2015 UWMP and authorized its submittal to the State of California as stated in Resolution 9209. Metropolitan's 2015 UWMP contains Metropolitan's December 2014 WSAP in Appendix 4. Metropolitan's 2015 UWMP also describes in Section 2.4 Metropolitan's WSAP and WSDM Plan, which guides Metropolitan's planning and operations during both shortage and surplus conditions. Similarly, on May 11, 2021, Metropolitan's Board voted to adopt Metropolitan's UWMP and WSCP as stated in Resolutions 9279 and 9281, respectively. These two Resolutions authorize Metropolitan to implement and enforce its shortage response actions contained in the WSCP, which is attached as Appendix 4 to the 2020 UWMP.

Additionally, numerous agreements allow Metropolitan to take its core supplies and shortage response actions. Core supplies and supply augmentation actions are authorized by the agreements shown in 2020 UWMP Appendix 3: Justifications for Supply Projections, which include:

#### **Colorado River Supplies**

- 1931 Seven Party Agreement dated August 18, 1931
- Metropolitan's 1930, 1931, and 1946 water delivery contracts with the Secretary of the Interior
- Consolidated Decree of the Supreme Court of the United States in *Arizona v. California*
- 2003 Quantification Settlement Agreement (QSA) and related agreements
- 2005 Settlement Agreement with Quechan Indian Tribe
- Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead
- 1988 IID-Metropolitan Conservation and Use of Conserved Water Agreement
- 1989 Approval Agreement
- 1989 Supplemental Approval Agreement
- August 2004 Forbearance and Fallowing Program Agreement with PVID
- Landowner Agreements for Fallowing in PVID
- 2003 Delivery and Exchange Agreement between Metropolitan and Coachella Valley Water District
- 2004 Storage and Interstate Release Agreement among Metropolitan, the Colorado River Commission of Nevada, Southern Nevada Water Authority, and the United States
- 2007 Lower Colorado Water Supply Project Contract among the United States, the City of Needles, and Metropolitan

- 2007 Lower Colorado River Basin Intentionally Created Surplus Forbearance Agreement among the Arizona Department of Water Resources, PVID, IID, the City of Needles, CVWD, Metropolitan, SNWA, and the Colorado River Commission of Nevada
- 2007 California Agreement for the Creation and Delivery of Extraordinary Conservation Intentionally Created Surplus among Metropolitan, PVID, IID, CVWD, and the City of Needles
- 2007 Agreement among the United States, the Colorado River Commission of Nevada, and the SNWA for the Funding and Construction of the Lower Colorado River Drop 2 Storage Reservoir Project
- 2007 Delivery Agreement between the United States and Metropolitan
- 2008 Metropolitan Notice of Election to Participate as a Party to the Drop 2 Funding Agreement
- 2009 Agreement among the United States, Metropolitan, the Colorado River Commission of Nevada, SNWA, and the Central Arizona Water Conservation District for a Pilot Project for Operation of the Yuma Desalting Plant
- 2010 Yuma Desalting Plant Pilot Project Delivery Agreement between the United States and Metropolitan
- 2012 Agreement among the United States, Metropolitan, the Colorado River Commission of Nevada, SNWA, and the Central Arizona Water Conservation District for a Pilot Program for the Conversion of Intentionally Created Mexican Allocation to Intentionally Created Surplus
- 2012 Interim Operating Agreement for Implementation of Minute No. 319 of the International Boundary and Water Commission
- 2012 Lower Colorado River Basin Forbearance Agreement for Binational Intentionally Created Surplus
- 2012 Binational ICS Delivery Agreement
- 2013 Agreement between Metropolitan and IID Regarding Binational Intentionally Created Surplus
- 2015 Amendment 1 to the California Agreement for the Creation and Delivery of Extraordinary Conservation Intentionally Created Surplus
- 2017 Agreement among the United States, Metropolitan, the Colorado River Commission of Nevada, SNWA, IID, and the Central Arizona Water Conservation District for a Pilot Program for the Conversion of Mexico's Water Reserve to Binational ICS
- 2017 Interim Operating Agreement for Implementation of Minute No. 323
- 2017 Binational ICS Agreement
- 2017 Binational ICS Delivery Agreement
- 2019 Lower Basin Drought Contingency Plan
- December 2019 Agreement for the Implementation of a Seasonal Land Fallowing Program
- Agreement for Seasonal Fallowing in Bard Unit (Farmer Fallowing Agreements)

- May 2020 First Amended Agreement for the Implementation of a Seasonal Land Fallowing Program
- Agreement Relating to Supplemental Water among The Metropolitan Water District of Southern California, the San Luis Rey Settlement Parties, and the United States
- Amended and Restated Agreement between The Metropolitan Water District of Southern California and the San Diego County Water Authority for the Exchange of Water. This October 10, 2003 agreement provides for Metropolitan delivery of Exchange Water to SDCWA in exchange for conserved Colorado River water SDCWA makes available to Metropolitan at Lake Havasu.
- Agreement Between Imperial Irrigation District And San Diego County Water Authority For Transfer Of Conserved Water. This April 9, 1998 agreement, as amended, provides for IID to conserve water for transfer to SDCWA and establishes the price SDCWA pays to IID for the conserved water.
- Allocation Agreement. This October 10, 2003 agreement among the United States, CVWD, IID, SDCWA, Metropolitan, and the San Luis Rey Settlement Parties provides for the allocation of water conserved from the All-American Canal Lining Project and the Coachella Canal Lining Project, and Metropolitan's assignment to SDCWA of its rights to both canal lining projects.
- Colorado River Water Delivery Agreement: Federal Quantification Settlement Agreement. By this October 10, 2003 agreement, among the Secretary of the Interior, CVWD, IID, SDCWA, and Metropolitan, the Secretary agreed to deliver IID-SDCWA transfer water and canal lining water allocated to SDCWA to Metropolitan's Colorado River Aqueduct Intake at Lake Havasu for diversion by Metropolitan.

#### **State Water Project Supplies**

- 1960 Contract between the State of California and The Metropolitan Water District of Southern California for a Water Supply
- Port Hueneme Water Agency Annexation: By Minute Item 41728, dated January 9, 1996, Metropolitan's Board adopted Resolution 8487 granting the concurrent annexation of Annexation No. 32 to Calleguas Municipal Water District and The Metropolitan Water District of Southern California, and fixing Metropolitan's terms and conditions for the annexation
- 1996 Sublease Agreement between the Port Hueneme Water Agency and Metropolitan
- 1967 and 1983 Water Exchange Contract and Agreements with Desert Water Agency and Coachella Valley Water District
- 1984 Advance Delivery Agreement with Desert Water Agency and Coachella Valley Water District
- The 2003 Exchange Agreement with Desert Water Agency and Coachella Valley Water District
- November 2012 Letter Agreement with Coachella Valley Water District
- 2019 Amended and Restated Agreement for Exchange and Advance Delivery with Desert Water Agency and Coachella Valley Water District
- 1997 Arvin-Edison/Metropolitan Water Management Agreement

- 1998 Turn-in/out Construction and Maintenance Agreement between DWR, Kern County Water Agency, Arvin-Edison, and Metropolitan
- 1998-2002 Water Delivery and Return Agreements with DWR, Kern County Water Agency, Arvin-Edison, and Metropolitan
- 2004 Point of Delivery Agreement with DWR, Kern County Water Agency, and Metropolitan
- 2004 Introduction of Water into the California Aqueduct with DWR, Kern County Water Agency, and Arvin-Edison
- 2007 First Amended and Restated Agreement Between Arvin-Edison Water Storage District and The Metropolitan Water District of Southern California for a Water Management Program
- 2000 Coordinated Operating Agreement between Metropolitan and San Bernardino Valley Municipal Water District
- 2001 Coordinated Operating Agreement between Metropolitan and San Bernardino Valley Municipal Water District
- 2011 Coordinated Operating, Water Storage, Exchange and Delivery Agreement among Metropolitan, Municipal Water District of Orange County, and Irvine Ranch Water District
- 2013 San Gabriel Valley MWD Exchange and Purchase Agreement
- 2019 Board Approval of the High Desert Water Bank Agreement with Antelope Valley East Kern Water Agency
- 2001 Kern Delta/Metropolitan Principles of Agreement
- 2002 Kern Delta and Metropolitan Boards of Directors Approval
- 2007 DWR-Yuba County Water Agency Purchase Agreement
- 2007 DWR-Metropolitan Yuba Dry Year Program Participation Agreement
- 2014 Amended DWR-Metropolitan Yuba Dry Year Program Participation Agreement
- 2019 Amended and Restated Agreement Among The Metropolitan Water District of Southern California, Coachella Valley Water District, and Desert Water Agency for the Exchange and Advance Delivery of Water
- 2020 Amended DWR-Metropolitan Yuba Dry Year Program Participation Agreement
- 2021 Coordinated Operating Agreement. The Coordinated Operating Agreement between Metropolitan and San Bernardino Valley District was approved by Metropolitan's Board in March 2021. The agreement will terminate on December 31, 2035 unless there is an extension of the SWP Contract.
- 2013 San Gabriel Valley MWD Exchange and Purchase Agreement. The agreement between Metropolitan and San Gabriel Valley MWD was executed in September 2013.
- 2013 Board Approval of the San Gabriel Valley MWD Exchange and Purchase Agreement. In August 2013, Metropolitan's Board authorized entering into the agreement with San Gabriel Valley MWD.

### ***In-Region Storage and Supplies***

- November 1974 Memorandum of Understanding and Agreement on Operation of Lake Skinner
- November 1994 Memorandum of Understanding on Operation of Domenigoni Valley Reservoir (now known as Diamond Valley Lake)
- Elderberry Forebay Contract for Conditions for Use
- June 2002 Division of Safety of Dams Certificate of Approval
- October 1991 Final EIR for the Eastside Reservoir Project (Diamond Valley Lake)
- 1995 amendment to Metropolitan's SWP contract to include Article 54, "Usage of Lakes Castaic and Perris"
- November 1974 Memorandum of Understanding and Agreement on Operation of Lake Skinner
- June 2002 Division of Safety of Dams Certificate of Approval
- Principles for groundwater storage adopted by the Metropolitan Board in January 2000
- Resolution for Proposition 13 Funds adopted by the Metropolitan Board in October 2000
- Agreement executed with the DWR for Interim Water Supply Construction Grant Commitment Safe Drinking Water, Clean Water, Watershed Protection and Flood Protection (Proposition 13, Chapter 9, Article 4) providing for Metropolitan to administer \$45 million in state Proposition 13 grant funds for groundwater reliability programs; October 2000
- Agreement executed for Long Beach Conjunctive Use Project, July 2002, amended in July 2003, October 2005, and November 2008
- Agreement executed for Live Oak Conjunctive Use Project, October 2002
- Agreement executed for Foothill Area Groundwater Storage Project, February 2003, amended in August 2006, April 2008, and February 2009
- Agreement executed for Chino Basin Programs, June 2003, amended in May 2004, August 2004, August 2005, May 2008, March 2009, September 2009, July 2010, and January 2015
- Agreement executed for Orange County Groundwater Storage Program, June 2003, amended in July 2004, December 2005, and July 2008
- Agreement executed for Compton Conjunctive Use Program, February 2005
- Agreement executed for Long Beach Conjunctive Use Project — Expansion in Lakewood, July 2005, amended in April 2006, August 2007, November 2008, and February 2010
- Agreement executed for Upper Claremont Basin Groundwater Storage Program, September 2005, amended in April 2008
- Agreement executed for Elsinore Basin Conjunctive Use Program, December 2006, amended in May 2008

These agreements are described in more detail in Appendix 3 to Metropolitan's 2020 UWMP.

If necessary, Metropolitan shall declare a water shortage emergency in accordance with CWC Chapter 3 (commencing with Section 350) of Division 1. In addition, Metropolitan shall coordinate with any city or county within which it provides water supply services for the possible proclamation of a local emergency, as defined in Section 8558 of the Government Code.



#### **A.4.7. Financial Consequences of and Responses for Drought Conditions**

A water shortage may be created by a reduction in water supply, an increase in water demand, or a combination of both. Metropolitan's shortage response actions include supply augmentation, demand management, and operational flexibility, all of which could impact Metropolitan financially. For example, exercising the options to take water from supply augmentation programs may increase costs. Similarly, operational changes could result in higher system costs, and lower revenues from on-system hydropower generation, and an increase in conservation and outreach efforts would also increase costs. On the other hand, if core supplies from the SWP or the Colorado River were reduced, variable power costs to move water into the service area would likely decrease. Additionally, effective demand management during shortages tends to decrease Metropolitan's water sales when effective, thereby potentially reducing revenue for Metropolitan. From these various financial effects, there is a potential for expenditures exceeding revenues more than budgeted, thereby requiring unanticipated draws from reserves.

Variation in the amount of revenues is already part of Metropolitan's financial planning. Revenues vary according to regional weather and the availability of statewide water supplies. In dry years, local demands increase, and Metropolitan may receive higher than anticipated revenues due to increased sales volumes. In contrast, in wet years, demands decrease, and revenues drop due to lower sales volumes. In addition, statewide supply shortages such as those in 2009 and 2015 also affect Metropolitan's revenues. Such revenue surpluses and shortages could cause instability in water rates. To mitigate this risk, Metropolitan maintains financial reserves, with a minimum and target balance, to stabilize water rates during times of reduced water sales. The reserves hold revenues collected during times of high water sales and are used to offset the need for revenues during times of low sales. Metropolitan's practice of using reserves to buffer unexpected increases or decreases in budgeted revenue also applies to unexpected expenditure increases or decreases resulting from shortage responses.

Metropolitan uses its financial reserves to mitigate the impacts of water shortages. This policy applies to each of the six shortage levels described in this WSCP. Financial reserves create a buffer to reduce the financial impact of the water shortage. Other mitigation actions such as reducing operations and maintenance expenses, deferring capital projects, and rates/charges increases are part of Metropolitan's biennial budget and rate design cycle, are not used routinely to mitigate financial impacts of water shortage response actions.

Metropolitan's reserve policy provides for a minimum reserve requirement and target amount of unrestricted reserves at June 30 of each year. Funds in excess of the target amount are to 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. However, if the fixed charge coverage ratio (the amount necessary to cover all fixed costs) is at or above 1.2, amounts over the minimum may be expended for any lawful purpose of Metropolitan, as determined by the Board. Therefore, unrestricted reserves are intended to be available to address Metropolitan's shortage response actions, as well as the consequences of those actions, so long as its fixed charge coverage ratio is at or above 1.2.

#### **A.4.8. WSCP Adoption and Refinement Procedures**

##### ***WSCP Public Notice and Adoption***

Metropolitan provided notice of the availability of the draft 2020 UWMP (including Appendix 11 which will also be a new Appendix 11 to its 2015 UWMP) and WSCP, and notice of the public hearing to consider adoption of both plans and Appendix 11 to the 2015 UWMP 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 11 to the 2015 UWMP, and the WSCP were posted prominently on Metropolitan's website, mwdh2o.com, on February 1, 2021, more than 60 days in advance of the public hearing on April 12, 2021. The notice of availability of the documents was sent to Metropolitan's member agencies, as well as to cities and counties in Metropolitan's service area. In addition, a public notice advertising the public hearing in English and Spanish was published in 12 Southern California newspapers. The notification in English language newspapers was published on February 1 and 8, 2021. The notification was published on January 28-30, 2021 and February 1, 4-6, and 8, 2021 in Spanish language newspapers, satisfying the requirement for non-English language notification. Copies of: (1) the notification letter sent to the member agencies, cities and counties in Metropolitan's service area, and (2) the notice published in the newspapers are included in the 2020 UWMP Section 5. Table 5-3 in the 2020 UWMP provides a list of participating member agencies and other appropriate agencies that Metropolitan coordinated with in its regional planning, as well as the cities and counties that were notified about the preparation of its 2020 UWMP, Appendix 11 to the 2015 UWMP, and WSCP. In addition, the list of newspaper publications is included in Table 5-4.

Metropolitan held the public hearing for the draft 2020 UWMP, draft Appendix 11 to the 2015 UWMP, and draft WSCP on April 12, 2021, at the Board's Water Planning and Stewardship Committee meeting, held online due to COVID-19 concerns. On May 11, 2021, Metropolitan's Board determined that the 2020 UWMP and the WSCP are consistent with the MWD Act and accurately represent the water resources plan for Metropolitan's service area. In addition, Metropolitan's Board determined that Appendix 11 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 9279, 9280, and 9281, the Board adopted the 2020 UWMP, Appendix 11 to the 2015 UWMP, and the WSCP and authorized their submittal to the State of California. Copies of Resolutions 9279, 9280, and 9281 are included in the 2020 UWMP Section 5, and Resolution 9281 for the WSCP is attached to this WSCP as Attachment C.

##### ***Submission and Availability of Final 2020 UWMP, Appendix 11 to 2015 UWMP, and WSCP***

In fulfillment of CWC Sections 10632(c) and 10645(a) and (b), Metropolitan's final 2020 UWMP, Appendix 11 to its 2015 UWMP, and its WSCP were posted on the mwdh2o.com website in May 2021, following their adoption by the Metropolitan board. This satisfies the requirement to make the plans available for public review and to make the WSCP available to Metropolitan's customers (which are its member agencies).

In fulfillment of CWC Sections 10632(c), 10635(c) and 10644(a)(1), Metropolitan also mailed copies of the final 2020 UWMP, Appendix 11 to the 2015 UWMP, and WSCP (in electronic pdf format) to the California State Library and all cities and counties within Metropolitan's service area within 30 days of Board adoption.

In June 2021, in fulfillment of CWC Section 10621(f) and Sections 10644(a)(1), (2), and (b), Metropolitan's final 2020 UWMP, Appendix 11 to the 2015 UWMP, and WSCP were electronically submitted to the State of California through DWR's WUE data website <https://wuedata.water.ca.gov/secure/>.

### ***WSCP Reevaluation and Improvement Procedures***

The WSCP will be periodically re-evaluated to ensure that its shortage risk tolerance is adequate and the shortage response actions are effective and up to date based on lessons learned from implementing the WSCP. The WSCP will be revised and updated during the UWMP update cycle to incorporate updated and new information. For example, new supply augmentation actions will be added, and actions that are no longer applicable for reasons such as program expiration will be removed. However, if revisions to the WSCP are warranted before the UWMP is updated, the WSCP will be updated outside of the UWMP update cycle. In the course of preparing the Annual Assessment each year, Metropolitan staff will routinely consider the functionality the overall WSCP and will prepare recommendations for Metropolitan's Board of Directors if changes are found to be needed.

## **ATTACHMENTS**

***Attachment A – Water Surplus and Drought Management Plan***

***Attachment B – Water Supply Allocation Plan***

***Attachment C – WSCP Resolution 9281***

This page intentionally left blank.

**Attachment A**

**THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA**

**WATER SURPLUS AND DROUGHT MANAGEMENT PLAN**

**REPORT NO. 1150**

**AUGUST 1999**



## **ACKNOWLEDGMENTS**

The consensus reached in the Water Surplus and Drought Management Plan would not have been possible without the dedication and participation of the Rate Refinement Process Workgroup, comprises made by the General Manager, staff from Metropolitan's member agencies, Metropolitan staff, and the dedication and work of the consultants.

### **Metropolitan's Project Management:**

Program Manager: Brian G. Thomas, Assistant Chief, Planning and Resources Division  
Project Managers: Timothy A. Blair, Senior Resource Specialist  
Eddie A. Rigdon, Principal Resource Specialist

### **Metropolitan Support Staff:**

Sydney B. Bennion	Nancy E. Clemm
James V. Daber	B. Anatole Falagan
Rafael G. Fernando	Amy Gallaher
Brandon J. Goshi	Lee Gottlieb
Michael E. Hollis	Nina Jazmadarian
Kenneth M. Kules	Anthony J. Liudzius
Dirk S. Marks	Cynthia J. Miller
Ray Mokhtari	Michael Morel
Christine M. Morioka	Keith E. Nobriga
Dan Rodrigo	Devendra N. Upadhyay

### **Project Consultants:**

Jim Waldo, Gordon, Thomas, Honeywell, Malanca, Peterson & Daheim  
B. J. Mirk, Gordon, Thomas, Honeywell, Malanca, Peterson & Daheim  
Richard W. Atwater, Bookman-Edmonston Engineering, Inc.  
Sanjay Gaur, DCSE  
Virginia Grebbien, Bookman-Edmonston Engineering, Inc.  
Wendy L. Illingworth, Foster Associates  
Daniel Jones, Dan Jones Consulting  
Dennis Underwood, MWD Agriculture Water Users

### **Member Agency, Sub-Agency, and Groundwater Basin Management Agency Participants:**

Gary Arant, Valley Center Municipal Water District  
Don Calkins, City of Anaheim  
Robert Campbell, San Diego County Water Authority  
Amy Chen, San Diego County Water Authority  
Charles Darensbourg, Central and West Basin Municipal Water Districts  
Tom Erb, Los Angeles Department of Water and Power  
Jerry Gewe, Los Angeles Department of Water and Power  
Donald L. Harriger, Western Municipal Water District of Riverside County  
Gordon Hess, San Diego County Water Authority  
Paul Jones, Central and West Basin Municipal Water Districts  
Donald R. Kendall, Calleguas Municipal Water District

Keith Lyon, Municipal Water District of Orange County  
Mathew Lyons, City of Long Beach  
George P. Martin, City of Anaheim  
William R. Mills, Jr., Orange County Water District  
Ronald C. Palmer, Foothill Municipal Water District  
Karl Seckel, Municipal Water District of Orange County  
Stanley E. Sprague, Municipal Water District of Orange County  
Matthew Stone, Municipal Water District of Orange County  
Roger W. Turner, Eastern Municipal Water District  
Diem Vuong, City of Long Beach  
Kenneth Weinberg, San Diego County Water Authority  
Lee Willer, San Diego County Water Authority  
Wyatt H. Won, Central and West Basin Municipal Water Districts

**WATER SURPLUS AND DROUGHT MANAGEMENT PLAN**  
**METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA**

**TABLE OF CONTENTS**

<b>EXECUTIVE SUMMARY .....</b>	<b>1</b>
<b>INTRODUCTION .....</b>	<b>7</b>
<b>WSDM PRINCIPLES AND IMPLEMENTATION GOALS .....</b>	<b>9</b>
<b>REGIONAL RESOURCES AND DEMANDS .....</b>	<b>11</b>
<b>RETAIL DEMANDS .....</b>	<b>13</b>
<b>DEMANDS ON METROPOLITAN .....</b>	<b>14</b>
<b>INTEGRATED RESOURCES PLANNING .....</b>	<b>17</b>
<b>SURPLUS AND SHORTAGE RESOURCE ACTIONS .....</b>	<b>19</b>
<b>SURPLUS ACTIONS .....</b>	<b>19</b>
<b>SHORTAGE ACTIONS .....</b>	<b>22</b>
<b>DESCRIPTIONS OF RESOURCE ACTIONS .....</b>	<b>23</b>
<b>ALLOCATION OF SUPPLY FOR M&amp;I DEMANDS .....</b>	<b>25</b>
<b>INTEGRATED RESOURCE MANAGEMENT STRATEGY .....</b>	<b>27</b>
<b>RESOURCE MANAGEMENT FRAMEWORK .....</b>	<b>27</b>
<b>SUPPLY CERTAINTY AND THE TIMING OF RESOURCE ACTIONS .....</b>	<b>29</b>
<b>PUBLIC AFFAIRS AND CONSERVATION .....</b>	<b>31</b>
<b>APPENDIX A: RESOURCE AND STORAGE SIMULATION .....</b>	<b>33</b>

## **EXECUTIVE SUMMARY**

### **INTRODUCTION**

The Water Surplus and Drought Management (WSDM) Plan for the Metropolitan Water District of Southern California (Metropolitan) is a ten-year plan that will be used to direct Metropolitan's resource operations to help attain the region's 100% reliability goal. The WSDM Plan recognizes the interdependence of surplus and shortage actions and is a coordinated plan that utilizes all available resources to maximize supply reliability. The overall objective of the WSDM Plan is to ensure that shortage allocation of Metropolitan's imported water supplies is not required.

The central effort in developing the WSDM Plan was a participatory process involving Metropolitan and its member agencies. Metropolitan staff and member agency representatives coordinated the Plan's development during a series of meetings of the Rate Refinement Team.

To lay a foundation for the WSDM Plan, participants in the Rate Refinement Process developed a set of proposed WSDM Principles and Implementation Goals which were subsequently adopted by the Metropolitan Board of Directors in September 1998. These Principles and Implementation Goals outline fundamental policies for guiding surplus and shortage management and establish a basis for dealing with shortages in an equitable and efficient manner.

### **WSDM PRINCIPLES AND IMPLEMENTATION GOALS**

#### **Guiding Principle**

- 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.

#### **Supporting Principles**

- Maintain an ongoing coordinated effort among Metropolitan and its Member Agencies to encourage efficient water use, develop cost-effective local resource programs, and inform the public on water supply and reliability issues
- Encourage local and regional storage during periods of surplus and use of storage during periods of shortage
- Manage and operate Metropolitan's regional storage and delivery system in coordination with local facilities to capture and store surplus water in local groundwater and surface reservoirs
- Arrange for secure sources of additional water from outside the region for use during periods of shortage

- Call upon sources of additional water from outside the region and water stored locally to meet the needs of consumers and protect the economy during periods of shortage

### **WSDM Plan Implementation Goals**

- Avoid mandatory import water allocations to the extent practicable
- Equitably allocate imported water on the basis of agencies' needs

Considerations to create an equitable allocation of imported water may include:

- Impact on retail consumers and economy
  - Reclamation/Recycling
  - Conservation
  - Population and economic growth
  - Investment in local resources
  - Change and/or loss of local supply
  - Participation in Metropolitan's Non-firm (interruptible) programs
  - Investment in Metropolitan's facilities
- Encourage storage of surplus supplies to mitigate shortages and improve water quality

### **SURPLUS AND SHORTAGE ACTIONS**

The region's ability to implement a long-term WSDM Plan results from the significant investments Metropolitan and its member agencies have made in a variety of resources since 1991. These additional resources include increased local conservation and water recycling, improvements in the reliability of imported supplies, increased regional storage, and increased conjunctive use groundwater programs. Together these improvements allow a comprehensive approach to water management.

The growing variety of resources available to the region is transforming Metropolitan from an agency with relatively modest storage capacity to one that will have storage sufficient to manage many shortages without impacts to its member agencies or retail customers. To attain this level of reliability, all storage programs and facilities, along with conservation, recycling, and other programs, must be managed as an integrated set of regional resources. To accomplish this, the WSDM Plan establishes the linkage between surplus and shortage resource management actions.

When imported supplies exceed projected demands for imported water within Metropolitan's service area, Metropolitan can operate available storage facilities to maximize the benefits of stored water to its member agencies. A number of factors affect Metropolitan's ability to divert surplus water into storage. Some of these factors include facility outages, system capacity, water quality (including requirements for managing total dissolved solids), and varying supply and demand patterns. The WSDM Plan provides a description of storage options available to Metropolitan and a framework for storing water in these programs and facilities when surplus supplies are available.

Except in severe or extreme shortages (defined in the Introduction) or emergencies, Metropolitan's resource management will allow shortages to be mitigated without impacting retail Municipal and Industrial (M&I) customers. A list of resource management actions and their descriptions are provided



below. This list emphasizes critical storage programs and facilities, and conservation programs that make up part of Metropolitan's response to shortages. The order in which these actions are presented does not imply the exact operational management of resources that would occur during a shortage, rather it represents a general framework and guide. In fact, several actions are likely to be taken concurrently. Many factors will dictate the exact order in which these actions will be taken during shortages. One action, however, will have an assigned prioritization: the curtailment of Full Service (firm) deliveries will be last. The following summarizes the drought actions:

- Draw on storage in the Eastside Reservoir Project
- Draw on out-of-region storage in Semitropic and Arvin-Edison
- Reduce/suspend long-term seasonal and groundwater replenishment deliveries
- Draw on contractual groundwater storage programs in the region
- Draw on State Water Project (SWP) terminal reservoir storage (per Monterey Agreement)
- Call for extraordinary drought conservation and public education
- Reduce Interim Agricultural Water Program (IAWP) deliveries
- Call on water transfer options contracts
- Purchase transfers on the spot market
- Implement the allocation of Metropolitan's imported supplies to its member agencies

For the ten-year period addressed by the WSDM Plan, 1999-2008, the majority of shortage contingencies will be managed by withdrawals from storage, groundwater management and options transfers. Shortages managed using these actions would not impact the quantity of water delivered to member agencies for consumptive uses. In fact, when coupled with other drought actions such as extraordinary conservation and reduction of agricultural deliveries, it is fully expected that an allocation of firm imported water supplies will not be necessary during the next ten years. Under this worse-case scenario, an approach to allocate Metropolitan's firm imported water supplies in a fair and equitable manner will be developed.

The overall policy objective of the allocation method will be to minimize the impacts to any one agency and the region as a whole. To meet that objective, the method of allocating firm imported supply will account for:

- Each agency's demands on Metropolitan,
- Each agency's local resources
- Each agency's total retail demands.

The WSDM Plan allocation method would address each of these supply and demand components and account for each agency's conservation and recycled water programs. A pricing structure will be coupled with the WSDM allocation method to accomplish two goals:

- Encourage conservation and water recycling
- Ensure that the regional impact of the shortage is as small as possible

To provide as much water as possible without changing wholesale prices, the allocation of all available supplies will be made at the prevailing rates for firm deliveries. In order to encourage conservation to the level of allocation, the rate for agency usage from 100-102% of its allocation will be the Full Service rate plus \$175. Usage above 102% of allocated supply will be charged at three times the Full Service rate. Any substantial change in Metropolitan's water rate structure may require these rates to be revised.

During severe or extreme shortage conditions, public outreach will play a critical role in shaping consumer response. Public information campaigns will send clear signals if extraordinary drought conservation is required. An effective public information campaign requires a joint effort among Metropolitan and its member agencies. Under this Plan, the administration of the Public Information and Government Affairs program will be the responsibility of a Drought Program Officer (DPO). The DPO will be responsible for integrating the various activities in these areas, coordinating efforts with Metropolitan's Board of Directors and member agencies, and designing the region-wide messages for the general public and various target audiences. Important constituencies are residential users, industrial and institutional users, business interests, agricultural users, elected officials, officials of various agencies such as the Department of Water Resources, and the media.

## **INTEGRATED RESOURCES MANAGEMENT**

Throughout the Integrated Resources Planning process and the development of the WSDM Plan, extensive analysis of resource management strategies focused on maximizing supply reliability while minimizing overall resource costs. Various management strategies were analyzed under shortage scenarios based on historical hydrologic data. The WSDM Plan presents a resource management framework to guide Metropolitan's integrated approach to supply management.

The resource management framework does not dictate a scripted response to shortage or surplus. The framework recognizes the complexity and variety of conditions that require action. Supporting this framework are general rules that describe the actions to be taken in each stage of surplus or shortage. These rules depend on shortage stage, account for monthly delivery requirements, and depend on when various supplies would be available.

One of the fundamental trade-offs in dealing with supply shortages is the need to maintain flexibility while providing supply certainty to member agencies and consumers. A central focus of the WSDM Plan is the analysis of information about supplies and demands. When do various pieces of information about the supply/demand balance become more certain? When should this information impact policy-making and trigger various resource actions? The WSDM Plan addresses these questions and the actual implementation of the Plan during a shortage.

Appendix A of this report provides a ten-year simulation of projected demands and supplies showing an example of how the region can maintain 100% reliability.

## INTRODUCTION

The Metropolitan Water District of Southern California (Metropolitan) provides water to a service area covering approximately 5,200 square miles. Over 16.5 million people live within the service area, which supports a \$500 billion economy. Metropolitan provides supplemental supplies to twenty-seven member agencies, both retail and wholesale agencies, who in turn provide water to over three hundred cities and local agencies providing supplies at the retail level. In recent years Metropolitan supplemental deliveries have accounted for about one-half to two-thirds of the region's total water demands. With supplies from its Colorado River Aqueduct (CRA) and the State Water Project (SWP), Metropolitan delivers water for municipal and industrial (M&I) uses, agricultural uses, and augmentation of local storage.

As part of the implementation of the regional Integrated Resources Plan (IRP), Metropolitan and its member agencies have developed the Water Surplus and Drought Management (WSDM) Plan for Southern California. This ten-year plan will direct Metropolitan's resource operations to help attain the region's 100% reliability goal. Over this ten-year period, the WSDM Plan will be updated to account for changes impacting supplies from the Colorado River and California's Bay-Delta. In the past, Metropolitan has developed drought management plans that simply addressed shortage actions and primarily focused on issues of short-term conservation and allocation of imported water. The WSDM Plan recognizes the interdependence of surplus and shortage actions and is a coordinated plan that utilizes all available resources to maximize supply reliability. The overall goal of the WSDM Plan is to ensure that shortage allocation of Metropolitan's imported water supplies is no---At required.

Because it addresses both surplus and shortage contingencies, the WSDM Plans draws clear distinctions among the terms *surplus*, *shortage*, *severe shortage*, and *extreme shortage*.

***Surplus:*** *Supplies are sufficient to allow Metropolitan to meet Full Service demands, make deliveries to all interruptible programs (replenishment, long-term seasonal storage, and agricultural deliveries), and deliver water to regional and local facilities for storage.*

***Shortage:*** *Supplies are sufficient to allow Metropolitan to meet Full Service demands and make partial or full deliveries to interruptible programs, sometimes using stored water and voluntary water transfers.*

***Severe Shortage:*** *Supplies are insufficient and Metropolitan is required to make withdrawals from storage, call on its water transfers, and possibly call for extraordinary drought conservation and reduce deliveries under the IAWP.*

***Extreme Shortage:*** *Supplies are insufficient and Metropolitan is required to allocate available imported supplies.*

## **WSDM PRINCIPLES AND IMPLEMENTATION GOALS**

The central effort in developing the WSDM Plan was a participatory process involving Metropolitan and its member agencies. Metropolitan staff and member agency representatives coordinated the Plan's development during a series of meetings of the Rate Refinement Team and the Integrated Resources Planning Workgroup. To lay a foundation for the WSDM Plan, participants in the Rate Refinement Process developed a set of "WSDM Principles and Implementation Goals."

### **Guiding Principle**

- 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.

### **Supporting Principles**

- Maintain an ongoing coordinated effort among Metropolitan and its Member Agencies to encourage efficient water use and cost-effective local resource programs and to inform the public on water supply and reliability issues
- Encourage local and regional storage during periods of surplus and use of storage during periods of shortage
- Manage and operate Metropolitan's regional storage and delivery system in coordination with local facilities to capture and store surplus water in local groundwater and surface reservoirs
- Arrange for secure sources of additional water from outside the region for use during periods of shortage
- Call upon sources of additional water from outside the region and water stored locally to meet the needs of consumers and protect the economy during periods of shortage

### **WSDM Plan Implementation Goals**

- Avoid mandatory import water allocations to the extent practicable
- Equitably allocate imported water on the basis of agencies' needs

Considerations to create an equitable allocation of imported water may include:

- Impact on retail consumers and economy
- Reclamation/Recycling
- Conservation
- Population and economic growth
- Investment in local resources
- Change and/or loss of local supply
- Participation in Metropolitan's Non-firm (interruptible) programs
- Investment in Metropolitan's facilities.

- Encourage storage of surplus supplies to mitigate shortages and improve water quality



## **REGIONAL RESOURCES AND DEMANDS**

Southern California receives its water supplies from a variety of different sources, both local to the region and imported from outside the region. These sources are summarized below.

### **Local Supplies**

Local supplies include groundwater pumping of local aquifers, surface reservoir production, recycled water, and supplies imported through wheeling arrangements or through the Los Angeles Aqueduct, which is owned and operated by the City of Los Angeles. Local supplies have, in the past, provided as much as 2.1 million acre-feet (maf) of water to meet the region's water demands. By far the largest component of local supplies is groundwater pumping, providing over 75% of historical local supplies.

### **Colorado River Supplies**

The distribution and management of Colorado River water is governed by a complex body of laws, court decrees, compacts, agreements, regulations, and an international treaty collectively known as the "Law of the River." Metropolitan's entitlement is established by the fourth and fifth priorities of California's Seven Party Agreement, included in Metropolitan's 1931 and 1946 contracts with the Secretary of the Interior. These priorities provide 550,000 acre-feet (af) per year and 662,000 af per year, respectively. In addition, Metropolitan holds a surplus water contract for delivery of 180,000 af. The physical capacity of the CRA is slightly in excess of 1.3 maf per year, based on a pumping capacity of 1,800 cubic feet per second (cfs). Metropolitan's long-held objective is to maximize the availability of Colorado River water, up to the maximum capacity of the CRA, subject to environmental, contractual, legal, political, financial, and institutional constraints. A California 4.4 Plan is being developed among California parties that will help ensure that full CRA deliveries are maintained, while addressing the concerns of the other Colorado River basin states that rely on the river. The California 4.4 Plan includes core transfers (such as the IID/MWD conservation agreement and the proposed IID/SDCWA transfer), system conservation (such as the lining of the All American Canal), offstream storage (such as the Arizona groundwater storage program), dry year option transfers (such as PVID land fallowing), and river re-operations.

### **State Water Project**

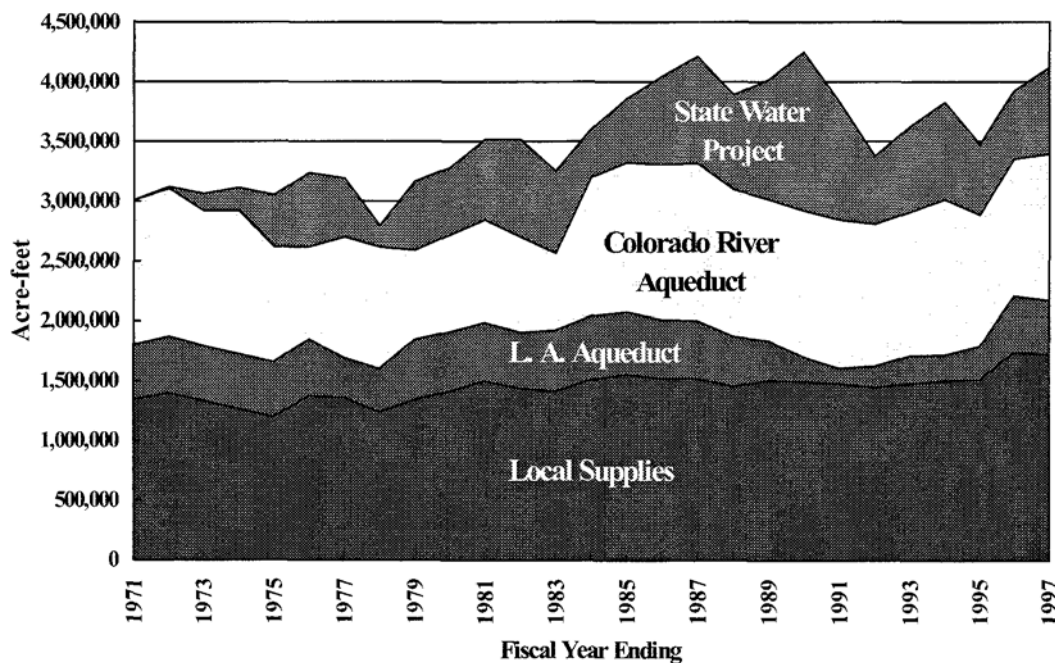
Metropolitan is one of 29 water agencies that have contracted with the State of California, through the Department of Water Resources (DWR), for water deliveries from the SWP system. Metropolitan's contracted entitlement is for 2.01 maf per year, or about 48 percent of the total contracted entitlement of 4.2 maf per year. SWP deliveries to Metropolitan are made via the SWP's California Aqueduct.

Initial SWP facilities, completed in the early 1970's, have produced average supply yields adequate to meet just over half of the total contracted entitlement. While it was intended that additional SWP facilities would be constructed as SWP contractor demands increased up to their contracted entitlements, few facilities have been constructed since that time.

The SWP obtains its supplies primarily from the Sacramento River Basin. About half of the total supply diverted from the Delta for the SWP is regulated flow from the Feather River (a tributary to the Sacramento River), while the other half is unregulated flow from runoff downstream of Sacramento River reservoirs and from other rivers that flow into the Delta. The Sacramento River watershed is subject to wide annual variations in total runoff. The Sacramento River Index (SRI), which measures runoff in the watershed, has averaged about 18 maf per year over the last 90 years. However, runoff varies widely from year to year. For example, the SRI measured 7.8 maf in 1994 and 32.5 maf in 1995.

Figure 1 shows the historical total regional supply production by type. As shown in Figure 1, water supplies were as high as 4.25 maf in 1990 and within two years dropped to 3.4 maf, a 20% decrease.

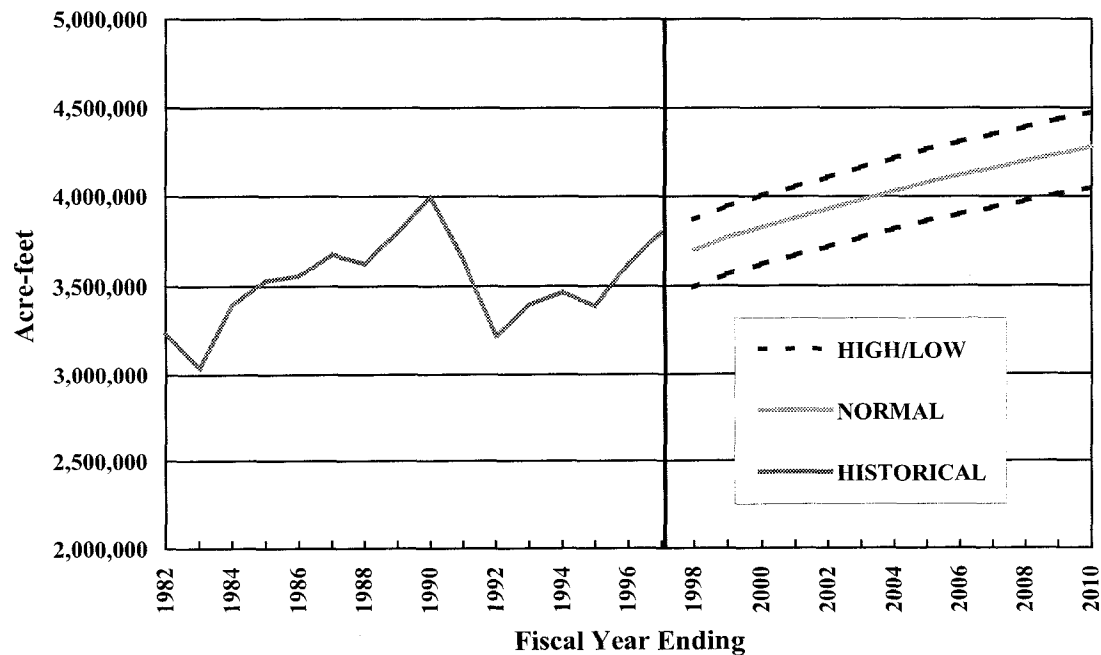
**Figure 1. Historical Supply Production by Type of Supply**



## RETAIL DEMANDS

From 1982 through 1995, the region experienced retail water demands averaging 3.5 mar. In dry years retail demands are approximately 5 to 7% greater than normal years, while demands in wet years are about 6 to 8% below normal demands. Under normal weather conditions, assuming full implementation of conservation best management practices, total regional retail demands are projected to increase from about 3.7 mar in 1997 to almost 4.3 mar in 2010. Without conservation, demands in 2010 would be about 10 to 12% greater than projected. Increases in retail demand are driven by demographics and economics, including changes in population, housing, employment, and income. Figure 2 shows the historical and projected retail demands in Metropolitan's service area.

**Figure 2. Regional Retail Water Demands**



The historical variability in demands from 1982 to 1997 is mainly due to weather and the economy. In 1983, extreme wet weather caused a significant drop in retail demands. During the period from 1985 to 1990, hot and dry weather coupled with a strong economy resulted in increased demand from 3.5 maf to 4.0 maf, a 14% increase. In 1991, the 5<sup>th</sup> year of a prolonged drought, conditions forced many communities to implement mandatory supply reductions. These mandatory reductions coupled with extraordinary drought conservation caused a 10 to 15% decrease in retail demands for the region. In addition, the period between 1992 and 1995 was very wet (with the exception of 1994, which was dry), and was a period of severe economic recession. Southern California alone lost some 700,000 jobs from 1990 through 1995. The combination of wet weather, economic recession, and conservation resulted in demands decreasing by over 17%.

## **DEMANDS ON METROPOLITAN**

For many member agencies, Metropolitan's water deliveries represent a supplemental supply. Most member agencies have local water supplies, but agencies differ in how much their supplies alone can meet their respective retail demands. Local supplies are often base-loaded (maximized subject to various constraints) and purchases from Metropolitan are used to meet remaining demands. In addition, to meeting consumptive demands, Metropolitan's deliveries are used to replenish local groundwater and surface reservoirs. To project demands on Metropolitan, projections of member agency's retail water demands and local water supplies are made. Local supplies are then subtracted from retail demands to get consumptive demands on Metropolitan. A projection of Metropolitan's long-term seasonal and replenishment deliveries are made based on safe groundwater yield and weather/hydrology.

Metropolitan forecasts its demands for three different broad categories: Full Service, Seasonal (reservoir storage and groundwater replenishment delivered for shift or long-term storage purposes and sold at a discount), and Agricultural (deliveries of water sold at a discount for agricultural use). Overall, demands on Metropolitan can vary -+ 11 to 18% from normal conditions due to weather and hydrology.

The following four figures show historical and projected demands on Metropolitan by category. Figure 3 shows Basic Water Deliveries, Figure 4 shows Seasonal Water Deliveries, Figure 5 shows Interim Agricultural Water Program (IAWP) Deliveries, and Figure 6 shows Total Water Deliveries for Metropolitan.

Figure 3. MWD Basic Water Deliveries

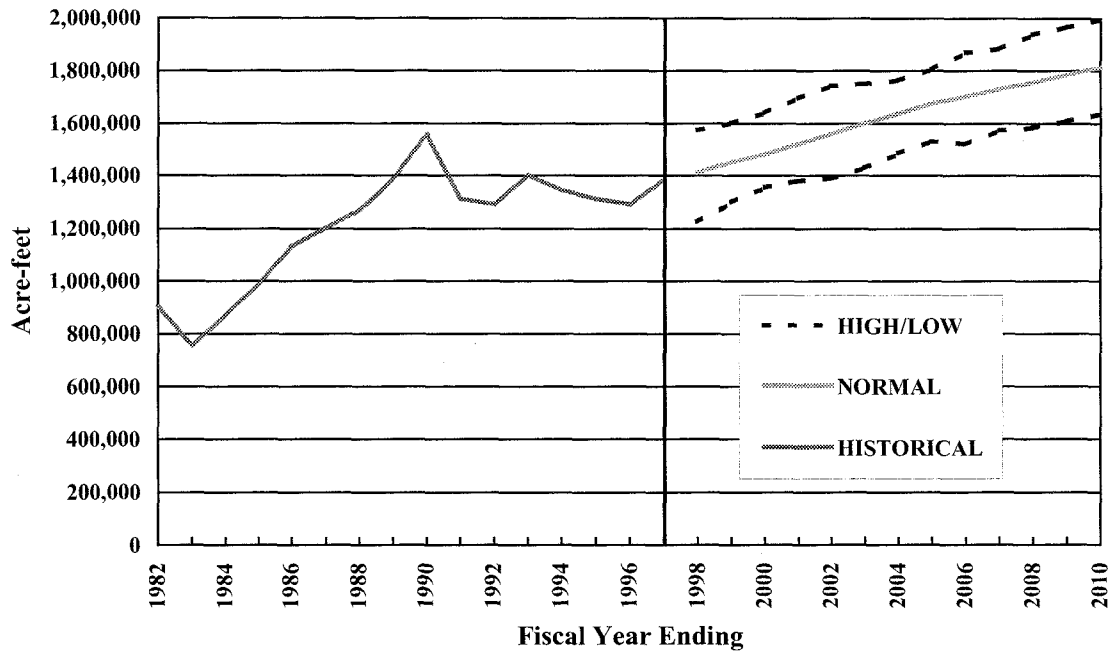


Figure 4. MWD Seasonal Water Deliveries

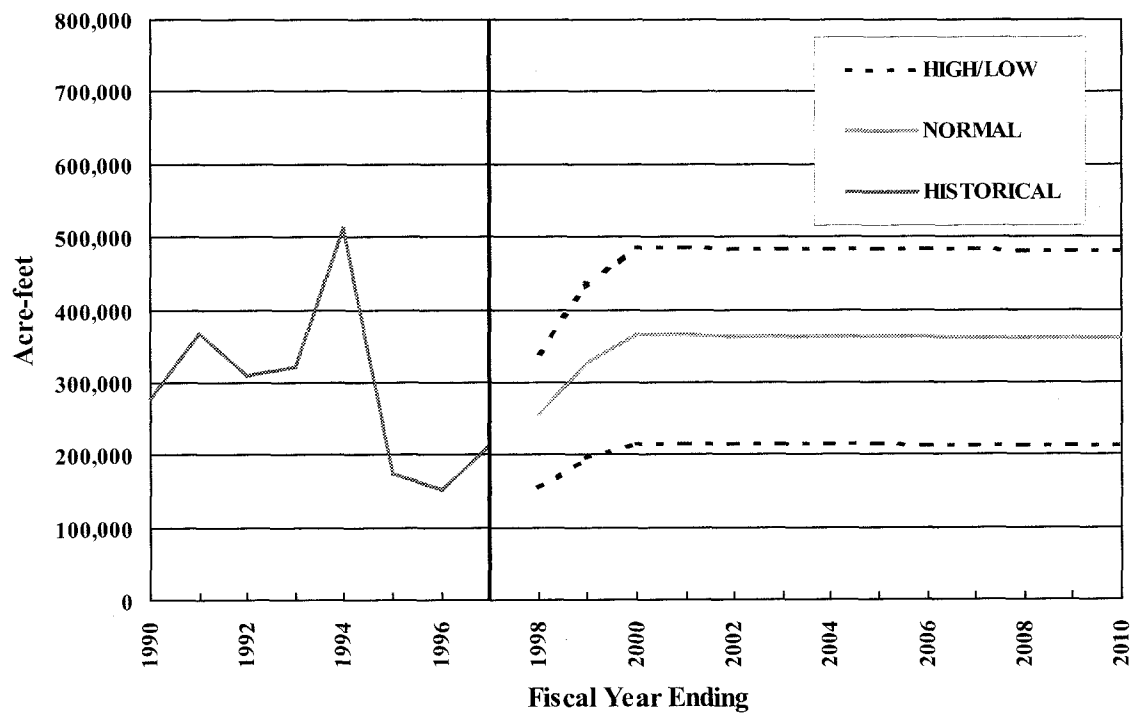


Figure 5. MWD Interim Agricultural Water Program (IAWP) Deliveries

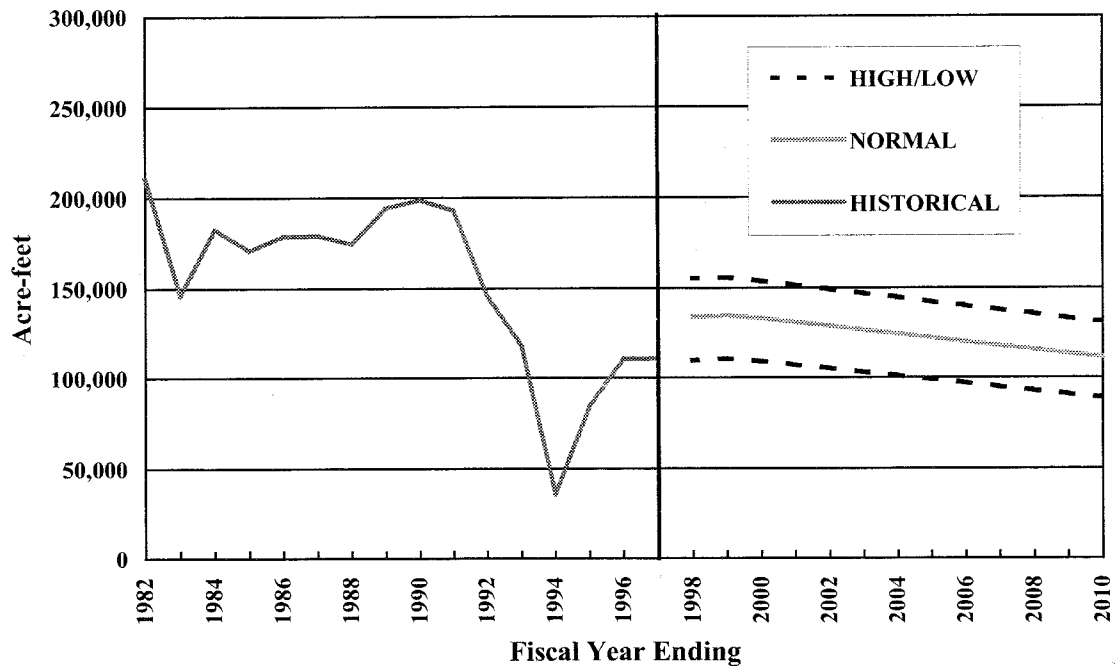
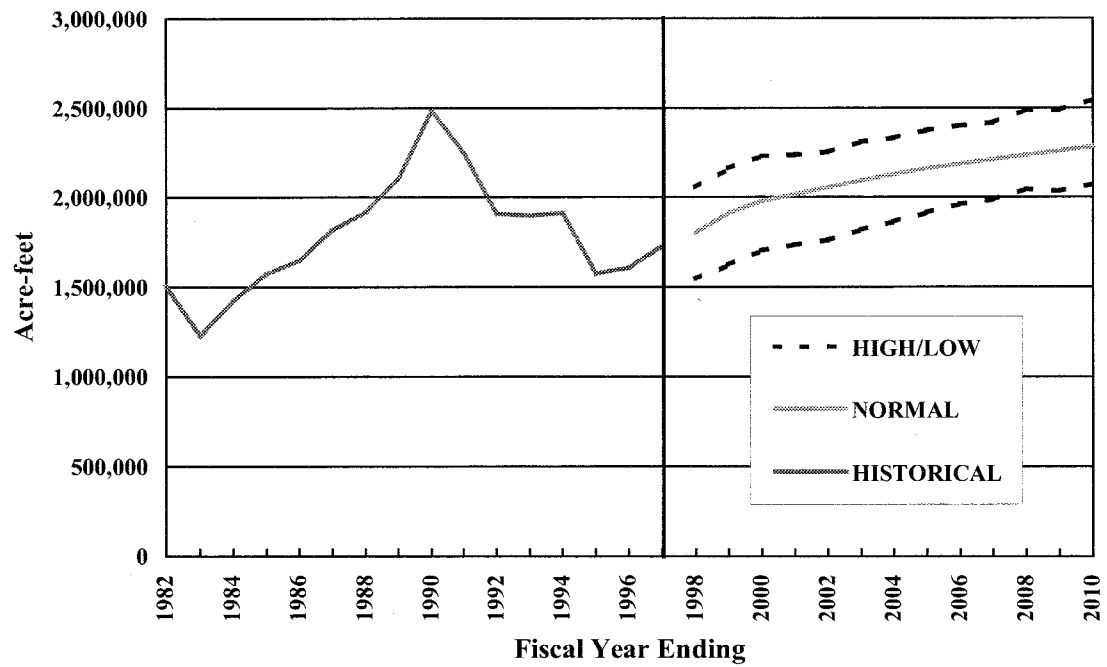


Figure 6. MWD Total Water Deliveries





## INTEGRATED RESOURCES PLANNING

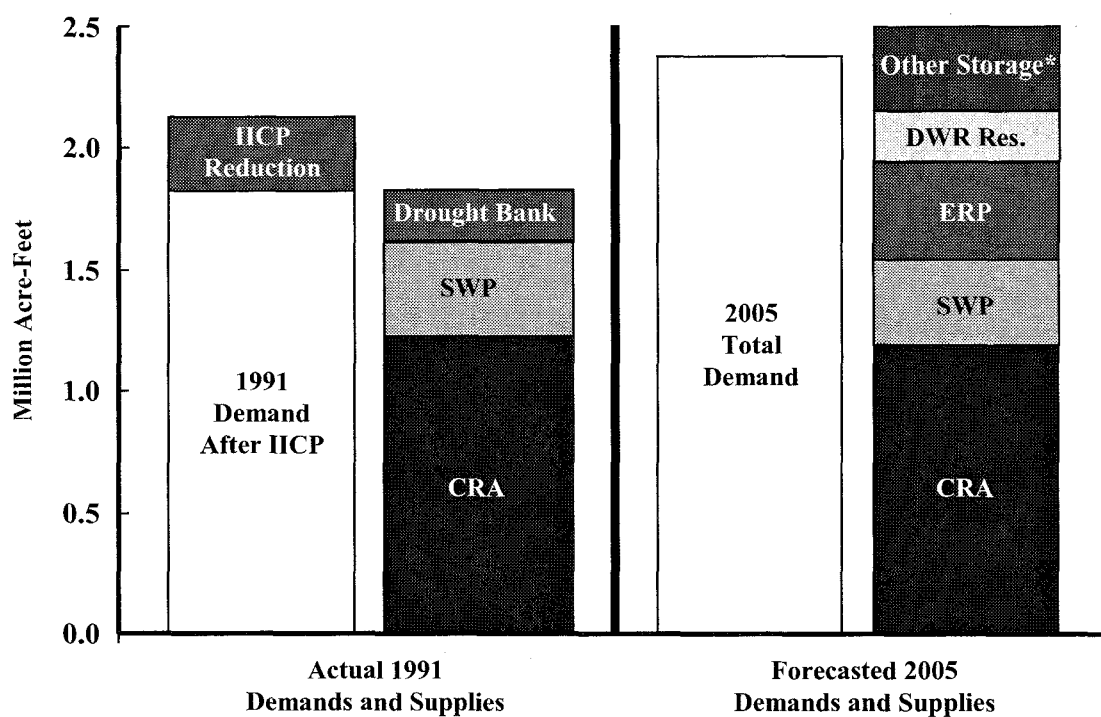
To ensure supply reliability under various drought conditions, Metropolitan and its member agencies developed an Integrated Resources Plan (IRP). The IRP, adopted by Metropolitan's Board of Directors in January 1996 and periodically updated, guides Metropolitan's resource and capital improvements investments. The region's ability to develop a long-term WSDM Plan results from the significant investments Metropolitan and its member agencies have made in resources since 1991. To date, these investments include:

- **Local supplies:** Metropolitan co-funded over 23 local projects and 200 conservation programs that will yield a total of 160,000 af per year.
- **Colorado River Aqueduct:** Metropolitan developed transfers and storage programs to help ensure a full aqueduct. The landmark Metropolitan/Imperial Irrigation District Conservation Program (IID), will result in a savings of 107,000 af per year. Storage programs in Arizona and California, combined with the IID savings, yield a total of 280,000 af of annual core, dry year options, and storage supply.
- **State Water Project:** Metropolitan and other parties negotiated the Bay-Delta Accord and the Monterey Amendment. The Bay-Delta Accord and subsequent efforts will increase the reliability of Metropolitan's entitlement deliveries. The Monterey Amendment provides access to 220,000 af of SWP storage.
- **In-Basin Storage:** Metropolitan is constructing the Eastside Reservoir Project, with 800,000 af of storage (400,000 af of which is emergency storage for use in case of facility failure as a result of earthquake or other event).
- **Groundwater Conjunctive Use Storage:** Metropolitan developed a conjunctive use storage program in the North Las Posas Basin in Ventura County with an anticipated capacity of 210,000 af and a dry-year withdrawal rate of up to 70,000 af.
- **Transfers and Storage:** Metropolitan developed the Semitropic Storage Program, with 350,000 af of storage and dry-year withdrawals averaging about 60,000 af. Metropolitan also approved the Arvin-Edison Storage and Transfer Program, with 250,000 af of storage and dry-year withdrawals averaging about 70,000 af. Metropolitan is also exploring storage and transfer programs with the Coachella Valley Water District and the Cadiz Land Company.

As a result of these investments, it is anticipated that Metropolitan and its member agencies will be 100% reliable over the next 10 years even under a repeat of the 1991 drought condition. Figure 7 compares actual Metropolitan demands and supplies during 1991 (the last year in a multiyear severe drought) and projected demands and supplies in year 2005 (assuming a repeat of 1991 conditions). In 1991, the region faced shortages that required Metropolitan to allocate water under the Incremental Interruption and Conservation Plan (IICP). The reduction in deliveries came after demands had already been reduced as a result of local conservation. In addition, water had to be purchased from the Governor's drought emergency water bank. By the year 2005 with the investments made to date,

Metropolitan's additional water supplies will be more than adequate to meet demands under a repeat of the 1991 drought event--even with increased demands due to growth.

**Figure 7. Historical and Projected Metropolitan Supplies and Demands Under Drought Conditions**



\* Groundwater management, Semitropic Storage Program, and Arvin-Edison Storage Program

## **SURPLUS AND SHORTAGE RESOURCE ACTIONS**

Metropolitan's investments in water resources, facilities, and programs has transformed it from an agency with relatively modest storage capacity to one that will have storage sufficient to manage many shortages without negative impacts to its member agencies or retail customers. To attain this level of reliability, storage programs and facilities, along with conservation, recycling, and other programs, must be managed as an integrated set of regional resources. To accomplish this, the WSDM Plan recognizes the linkage between surplus and shortage resource management actions.

### **SURPLUS ACTIONS**

The combination of Metropolitan's regional storage facilities, such as Lake Mathews, Lake Skinner, the future Eastside Reservoir Project, and the storage capacity available to Metropolitan in Castaic Lake and Lake Perris as a result of the Monterey Amendment, allows Metropolitan great flexibility in managing its water resources. The development of storage programs both outside and within the service area provides even greater flexibility in storing surplus water. Each of the storage facilities and programs plays an important role in achieving Metropolitan's reliability goal.

When imported supplies exceed projected demands for imported water within Metropolitan's service area, Metropolitan can operate storage facilities to maximize stored water to benefit its member agencies. A number of factors affect Metropolitan's ability to divert surplus water into storage. Some of these factors include facility outages, system capacity, water quality (including requirements for managing total dissolved solids), and varying supply and demand patterns. This section provides a description of storage options available to Metropolitan and a framework for storing water in these programs and facilities when surplus supplies are available.

### **Storage of Colorado River Supplies**

Metropolitan has participated in a number of programs to maximize the reliability of supplies from the Colorado River. The landmark Metropolitan/Imperial Irrigation District Conservation Program will result in a savings of 107,000 af per year. These supplies will increase the reliability of Metropolitan's entitlement of Colorado River water. Other programs yield shortage benefits by increasing amounts of water stored for use during shortages. Between August 1992 and July 1994, Metropolitan and the Palo Verde Irrigation District conducted a Test Land Fallowing Program. Approximately 20,000 acres of farmland in the Palo Verde Valley were not irrigated, saving 186,000 af of water which was stored in Lake Mead for later use by Metropolitan. With Arizona and Nevada water agencies, Metropolitan is participating in a Central Arizona Groundwater Storage Demonstration Program that has encouraged the storage of water. To date, 139,000 af of supplies have been stored in groundwater basins in Central Arizona. The Desert Coachella program is an exchange and storage program with agencies situated along the Colorado River Aqueduct. Metropolitan releases Colorado River water for storage in the Coachella Groundwater Basin. Metropolitan then exchanges these supplies for the

participating agencies' SWP supplies. These programs serve as models for future programs that could increase the reliability of Colorado River supplies. Metropolitan continues to explore other possible options that would increase the reliability of supplies. The California 4.4 Plan is being developed among California parties to increase storage programs for Colorado River supplies. In addition to core transfers and conservation programs, the California 4.4 Plan includes offstream storage (such as the Arizona groundwater storage program), dry year option transfers (such as PVID land fallowing), and river re-operations. These programs, in conjunction with favorable supply determinations by the Secretary of Interior, will ensure the highest possible reliability of Colorado River supplies.

In addition to the programs mentioned above, the Colorado River system itself contributes to the high reliability of Metropolitan's Colorado River supplies. Currently, the average Colorado River runoff exceeds basin-wide demands by over 1.0 maf per year. The Colorado River system also contains a great deal of reservoir storage capacity. The total storage capacity in the Colorado River Basin is approximately 60 maf, almost four times the Colorado River's average annual flow. For much of 1997, system storage levels were at 80% or more of total capacity. These factors allow the Bureau of Reclamation, operators of the Colorado River system, to store significant supplies for use during shortages.

### **Storage of State Water Project Supplies**

Total storage capacity is a critical factor in comparing the operations of the Colorado River system with the SWP. On average, both systems have similar amounts of water available on an annual basis. The SWP's watersheds in the Sacramento River Basin have produced about 18 maf per year over the long term, as represented by the Sacramento River Index (SRI.) Long-term runoff on the Colorado River has averaged more than 16 maf annually since 1906. However, the ability to carry over unused water from a wet year for use in a dry year differs substantially between the two systems. State Water Project storage facilities have storage capacity of about 4.5 maf, while system storage in the Colorado River Basin totals nearly 60 maf. This gives the operators of the Colorado River reservoirs much more flexibility in storing unused water from a wet year for use in a subsequent dry year.

When water from the SWP cannot be put to immediate use in Metropolitan's service area, the water may be stored for future use. Provided storage capacity is available, the water may remain in either Oroville Reservoir (as SWP storage for delivery to all contractors the following year) or San Luis Reservoir (as carryover storage assigned to Metropolitan). Through the carryover storage program, as amended by the Monterey Amendment, Metropolitan can place a maximum of 200,000 af per year of allocated supplies in SWP surface reservoirs. The program also allows for carryover storage in non-project facilities, including surface reservoirs and groundwater basins. In the case of carryover storage in San Luis Reservoir, SWP supplies allocated to but unused by a contractor may, under certain conditions, be assigned as carryover if storage capacity is available at the end of the calendar year. However, carryover water stored for a contractor has lower priority than storage of SWP water and consequently "spills" first as San Luis Reservoir fills.

Also, in a wet year such as 1995, low demands may allow DWR to operate San Luis Reservoir nearly full, eliminating any possibility of contractor carryover storage into the following year. As a result, carryover storage on the SWP may not be possible, and even when possible, is subject to spilling.

Due to these carryover storage limitations, Metropolitan has invested a great deal to expand its ability to store surplus SWP supplies. Metropolitan has entered into a number of water transfer and storage agreements. The Semitropic Water Banking and Exchange program allows Metropolitan to store up to 350,000 af in the groundwater basin underlying the Semitropic Water Storage District. The storage and withdrawal capacities of the program are shared with other participants in the storage program, with Metropolitan's share equaling 35%. Dry-year withdrawals will average about 60,000 af.

Metropolitan and the Arvin-Edison Water Storage District have developed a program that allows Metropolitan to store water in the groundwater basin in the Arvin-Edison service area. The program would allow the storage and withdrawal of 250,000 af of supplies over the next 25430 years. Dry-year withdrawals will average about 70,000 af.

### **Storage in Regional Facilities**

In addition to the storage of Colorado River and SWP supplies outside the region, Metropolitan has established a number of programs for storing supplies within the region. Metropolitan owns and operates two main surface reservoirs, Lake Mathews and Lake Skinner, which have a combined storage of about 226,000 af. Only a small portion of this capacity is available for shortages, with the balance being used to regulate flows in Metropolitan's delivery system. The Eastside Reservoir Project, currently under construction, will have a total capacity of 800,000 af, with approximately 400,000 af of operational drought and seasonal storage and 400,000 af of emergency storage. Through the Monterey Amendment, Metropolitan obtained the right to use up to 220,000 af of water stored in the SWP terminal reservoirs. However, withdrawals from these terminal reservoirs must be replaced within five years.

Metropolitan and its member agencies have established the cyclic storage program to increase storage in groundwater basins within the service area. Regional groundwater basins offer an economical way for Metropolitan to improve supply reliability by storing water within the service area. This makes water readily accessible in times of need, either in emergency situations or during shortages. Some limitations are imposed by the fact that such water can generally only be used through pumping from the groundwater basin by an overlying member agency or local agency. Storage in groundwater basins takes place either by direct replenishment (spreading or injection), or through in-lieu means. Spreading (or injection) is desirable because direct measurement of the amount of stored water is a relatively simple, verifiable transaction. The main disadvantage to direct spreading is that spreading can occur only under certain conditions. For example, spreading cannot occur when spreading facilities are being used to capture local storm runoff for flood control purposes, or when the amount of local runoff precludes the need

for imported water to replenish the basins. Also, spreading basins require frequent maintenance to assure maximum efficiency. These and other conditions can limit the ability to deliver water for spreading at a time when surplus supplies are available.

In-lieu replenishment allows most member agencies to participate in groundwater replenishment without needing direct access to replenishment facilities. Their wells, in effect, become their replenishment facilities. Both direct and in-lieu replenishment from 1986 through 1990 served the region well during the critical drought years from 1991 through 1993.

The overall objective of the various storage programs is to maximize the availability of imported water during times of need by storing surplus water in a strategic manner and utilizing the storage available within the region. Many factors affect the availability of storage capacity and Metropolitan's ability to move water to and from various facilities. After reviewing the full range of shortage actions available to Metropolitan, a framework for prioritizing the full range of surplus and shortage actions will be presented.

In addition to pricing incentives used to encourage local agencies to store water in groundwater basins, Metropolitan has developed a conjunctive use contractual storage program with the Calleguas MWD in the North Las Posas Basin. Metropolitan will fund the construction of wells which will be called upon to meet demands during dry years. This program will yield a dry year supply of about 70,000 af.

## **SHORTAGE ACTIONS**

Except in severe or extreme shortages or emergencies, Metropolitan's management of available resources will allow shortages to be mitigated without negatively impacting retail M&I demands. Below is a list of drought actions that will be taken during periods of shortage. The goal of these actions is to avoid, to the extent practicable, the allocation of Metropolitan's firm supplies. The order in which these actions are presented does not imply the exact operational management of resources that would occur. In fact, several actions are likely to be taken concurrently. Many factors dictate the particular order in which actions will be taken during an actual shortage, although it is clear that the last action will be the curtailment of firm deliveries to the member agencies.

- Draw on storage in the Eastside Reservoir Project
- Draw on out-of-region storage in Semitropic and Arvin-Edison
- Reduce/suspend long-term seasonal and groundwater replenishment deliveries
- Draw on contractual groundwater storage programs in the region
- Draw on SWP terminal reservoir storage (per Monterey Agreement)
- Call for extraordinary drought conservation and public education
- Reduce IAWP deliveries
- Call on water transfer options contracts
- Purchase transfers on the spot market
- Implement an allocation of Metropolitan's imported supplies to its member agencies



Even with dedicated programs to meet the reliability goal for the region, proper management and operations of these resources is critical to ensure reliability. The prioritization of both surplus and shortage actions need to account for several important criteria. It is also important to recognize that these criteria will need to be balanced. The criteria include:

**Location:** Out-of-region storage is more vulnerable than in-basin-storage due to the risks of seismic events. To only maximize out-of-region storage will put reliability at risk.

**Take capacity:** Surface reservoirs generally have the ability to be filled and drawn down very quickly. Certain groundwater storage programs have limited take capacities--requiring several years at full take capacity to withdraw **all** available storage. Stored water will be balanced so that dry year supplies are maximized.

**Cost:** Programs vary with respect to their marginal operating costs. Program actions will be taken to maximize supply reliability while minimizing cost.

**Flexibility:** Not all storage programs and transfers offer the same flexibility to Metropolitan. Some programs can only meet specific overlying demands, while others can meet demands anywhere in the system.

## **DESCRIPTIONS OF RESOURCE ACTIONS**

**Draw on storage in the Eastside Reservoir Project:** Withdrawals from the Eastside Reservoir Project would provide a flexible supply for meeting a shortage. Eastside Reservoir Project supplies can be drawn upon quickly. The amount of water drawn from the Eastside Reservoir Project before exercising other shortage actions will depend on the severity of the shortage and the overall condition of other resources available to Metropolitan.

**Draw on out-of-region storage in Semitropic and Arvin-Edison programs:** Out-of-region programs such as Semitropic and Arvin-Edison provide cost-effective shortage supplies. These supplies also provide flexibility, as they can be distributed as effectively as any SWP supplies coming into Metropolitan's service area. Exercising these programs relatively early in the order of actions reduces the risk of leaving supplies out-of-region. Based upon the ratio of storage capacity to take capacity, these programs will generally provide supplies over several years. This provides the rationale for calling on these programs relatively early in a shortage.

**Reduce Long-Term Seasonal and Replenishment Deliveries, and call on cyclic storage accounts:** Certain interruptible supply programs provide benefits during shortage. Reducing deliveries to interruptible programs established for storage purposes, while continuing expected levels of groundwater production, allows limited supplies to go toward meeting direct consumptive uses. In addition, calling on cyclic storage accounts can extend the replenishment needs for several years. Most replenishment supplies would be expected to be interruptible for a minimum of two years before agencies would be allowed to claim a local supply adjustment on such supplies. Some programs have longer interruption requirements. For example, most Groundwater Recovery Programs are governed by contracts that require supply production through a three-year interruption in service.

**Draw on contractual groundwater storage programs:** In-region contractual groundwater programs provide cost-effective supplies that would be drawn upon during shortages. These programs are also

limited by their take capacities and generally have several years of withdrawals in storage. For this reason, these programs might be called upon before withdrawing heavily from surface reservoir storage.

**Draw on SWP terminal reservoir storage:** The storage available in the SWP terminal reservoirs provides a flexible and cost-effective shortage supply. Supplies withdrawn from this program must be replaced within five years of withdrawal. For this reason, the storage in these reservoirs would be reserved for more serious shortage conditions and would be utilized after the programs and facilities listed above were used to meet the shortage.

**Call for extraordinary drought conservation:** Voluntary conservation programs have historically been effective in reducing water demand during drought. However, voluntary conservation programs are not without impact to the retail customer and can be perceived as a failure of water agencies to properly plan for shortages. Therefore, the call for extraordinary drought conservation will only be taken with the consent of Metropolitan's Board of Directors.

**Reduce agricultural deliveries:** The Interim Agricultural Water Program (IAWP) offers interruptible water to southern California's agricultural industry at discounted rates. These supplies will be interrupted as part of Metropolitan's shortage actions. Metropolitan will work with IAWP participants to provide as much advance warning of interruption as possible. The IAWP reflects current policies toward agricultural water users. The policies underlying this program are due to be reviewed during the ten-year period of the WSDM Plan. The WSDM Plan will be changed accordingly.

**Call on water transfer option contracts:** Transfer options programs provide cost-effective supplies when the region is faced with reducing deliveries to meet consumptive demands. These programs might also be used to increase storage levels in Metropolitan storage facilities. Replenishment of these facilities reduces the risk of leaving available supplies outside the region and helps to protect the region during extended shortages.

**Purchase transfers on the spot market:** During the 1987-92 drought, the Drought Water Bank proved to be one mechanism for California to reduce the overall impacts of the shortage. However, the cost of spot market supplies may cause Metropolitan to use them as a last increment of supply before the region implements reductions in M&I deliveries. It is likewise possible that availability and cost will make spot market options more favorable under certain conditions. If this occurs then spot market supplies will be sought prior to calls on option transfers. However, participation in the spot market may be restricted to those agencies that have already taken significant actions in response to the shortage.

**Implement allocation plan:** As the final stage in responding to shortages, Metropolitan will implement an allocation plan to deliver reduced supplies to its member agencies. The issues of allocation and the methods of allocation are outlined in the following section.

## **ALLOCATION OF SUPPLY FOR M&I DEMANDS**

The equitable allocation of supplies is addressed by the Implementation Goals established for the WSDM Plan, with the first goal being to "avoid mandatory import water allocations to the extent practicable." The second fundamental goal is to "equitably allocate imported water on the basis of agencies' needs." Factors for consideration in establishing the equitable allocation include retail and economic impacts, recycled water production, conservation levels, growth, local supply production, and participation and investment in Metropolitan's system and programs. In the event of an extreme shortage an allocation plan will be adopted in accordance with the principles of the WSDM Plan.

## **INTEGRATED RESOURCE MANAGEMENT STRATEGY**

Throughout the Integrated Resources Planning process and the development of the WSDM Plan, extensive analysis of resource management strategies focused on maximizing supply reliability while minimizing overall resource costs. Various management strategies were analyzed under shortage scenarios based on historical hydrologic data. Certain strategies yield high reliability but incur very high costs. This is the case for strategies that utilize relatively costly transfer programs early in a shortage while maintaining high storage levels. If a shortage is short, this results in high transfer costs and shortage storage programs that are not fully utilized. Other strategies draw more heavily on storage early in a shortage and do not use options transfer programs. Later in a shortage, the yields from these transfer programs, combined with low yields from depleted storage facilities, might not make up for continuing or deepening shortages. Overall, such approaches may be inexpensive to pursue at the wholesale level but have high costs associated with retail level impacts. The resource management framework presented results from extensive analysis of various strategies for managing available resources under a variety of surplus and shortage conditions. Although the extent to which various actions are exercised may still vary depending on specific shortage conditions, the ordering presented does reflect Metropolitan's anticipated order of actions during shortages.

### **RESOURCE MANAGEMENT FRAMEWORK**

The analysis of surplus and shortage actions yields a water management framework that accounts for the degree or "stage" of surplus and shortage. These stages are defined by parameters such as storage levels and expected SWP supplies. Each stage has associated actions that could be taken as part of the response to prevailing shortage conditions. For example, Surplus Stage 1 might have as associated actions to place water in the highest-priority storage resources. Figure 8 shows the mapping between actions and stages. The darkly shaded diagonal area identifies actions that can be undertaken concurrently, while the lightly shaded areas show actions that will not be taken. For example, Metropolitan will not withdraw water from most storage resources during a surplus.


Figure 8 highlights several aspects of the WSDM Plan's approach to supply management. First and most importantly, it does not dictate a response to shortage or surplus. The framework recognizes the complexity and variety of conditions that could require various responses. Supporting this framework are general "rule curves" that dictate the extent to which particular actions are taken in various stages of surplus or shortage. For example, the rule curves indicate approximately how much water should be taken from the Eastside Reservoir Project before calling on supplies from the Semitropic or Arvin-Edison storage programs. If a shortage were greater than the desired initial withdrawal from the Eastside Reservoir Project, then Stage 2 actions would be taken. The rule curves for a particular resource would take into account shortage stage, monthly delivery requirements, and when various supplies are available.

Surplus and Shortage Stages are determined by the total amount of water that would be stored or produced by exercising the actions in that Stage. Overall storage levels in each stage are determined by the extent to which storage is increased or reduced by earlier actions. Therefore, each Stage is defined by supplies (stored or produced) and an approximate overall level of storage remaining in all resources. Up through Shortage Stage 4, the actions taken will not result in negative impacts to any consumptive uses. Shortage Stages 1 through 4 constitute shortage management without retail level impacts. The conservation efforts and reductions in IAWP deliveries in Shortage Stage 5 will result in retail impacts.

Action by the Metropolitan Board of Directors would be required before actions corresponding to Stages 5, 6, and 7.

**Figure 8. Resource Stages and Actions Matrix**

Surplus Stages					Shortage Stages							
Surplus					Actions	Shortage				Severe Shortage		Extreme Shortage
5	4	3	2	1		1	2	3	4	5	6	7
					Make Cyclic Deliveries Fill Semitropic, Arvin-Edison Store supplies in SWP Carryover Fill Contractual GW Fill Monterey Res. Fill Eastside							
					Conduct Public Affairs Program Take from Eastside Take from Semitropic, Arvin-Ed. Cut LTS and Replen. Deliveries Take from Contractual GW Take from Monterey Res. Call for Extraordinary Conservation Reduce IAWP Deliveries Call Options Contracts Buy Spot Water Implement Allocation Plan							

 Potential Simultaneous Actions

The Stages and Actions Matrix (Figure 8) is read from the center moving outward. Moving from the center to the left, are actions that Metropolitan will take during surplus conditions. For instance, in a Stage 3 Surplus, Metropolitan will be adding water to the Eastside Reservoir Project, the Monterey Reservoirs (if any water is due for repayment), Contractual Groundwater Programs, and carryover storage on the State Water Project. Moving from the center to the right are actions that Metropolitan will take during periods of shortage. For instance, in a Stage 3 Shortage, Metropolitan will be pulling water from the Eastside Reservoir Project, the Semitropic and Arvin Edison programs, and interrupting deliveries of Long-Term Seasonal and Replenishment program water. In addition, the Stages and Actions Matrix allows for surplus actions to be taken during shortages and vice versa, but these actions are strictly a result of prudent water management. For example, in a Stage 6 Shortage, Figure 8 shows Metropolitan potentially filling the Eastside Reservoir Project, the Monterey Reservoirs, and contractual groundwater programs while calling on spot transfers and buying spot water. Through these actions Metropolitan will be ensuring that water supply opportunities during a drought are realized--ultimately adding to the drought reserves of southern California.

Figure 8 also highlights the on-going efforts by Metropolitan and its member agencies in the conduct of public outreach and active conservation programs. Through all conditions, effective public outreach and conservation programs are an integral part of Metropolitan's management of resources. In addition to ongoing conservation and water efficiency programs, Stage 5 of the Stages and Actions Matrix calls for participation of the citizens of southern California to take extraordinary conservation measures to cut water demand during droughts.

As with the listing of shortage actions earlier in the report, the Stages/Actions matrix in Figure 8 only highlights certain programs and response actions. However, unlike the discussion of actions earlier, Figure 8 is intended to convey Metropolitan's currently anticipated ordering for those actions listed. As the supply and demand outlooks, programs, and other factors continue to change, the analysis of the ordering of actions will continue during the ten-year period of the WSDM Plan.

## **SUPPLY CERTAINTY AND THE TIMING OF RESOURCE ACTIONS**

One of the fundamental trade-offs in dealing with supply shortages is the need to maintain flexibility while providing supply certainty to member agencies and consumers. A central focus of the WSDM Plan is the analysis of information about supplies and demands. When do various pieces of information about the supply/demand balance become more certain? When should this information impact policy-making and trigger various resource actions? The WSDM Plan addresses these questions and the actual implementation of the Plan during a shortage.

Figure 9 shows a hypothetical shortage year. With respect to the supply and demand outlook, a typical shortage year will have periods of certainty and stability, and other periods of relative uncertainty and transition. Important supply components--such as the SWP, CRA, Los Angeles Aqueduct (LAA), and local supplies--are closely monitored through the early part of the year. These supplies and demands are fairly well-known through the April-September period. Storage is assessed in the post-summer period and decisions about certain programs, such as long-term (LT) seasonal deliveries could be made at this time.



Figure 9. Water Supply Outlook Throughout the Year

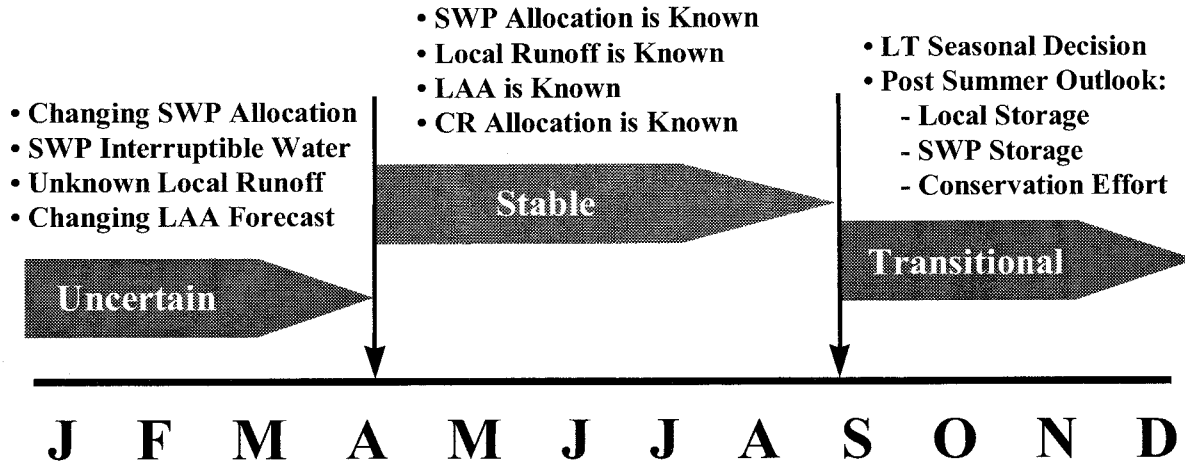
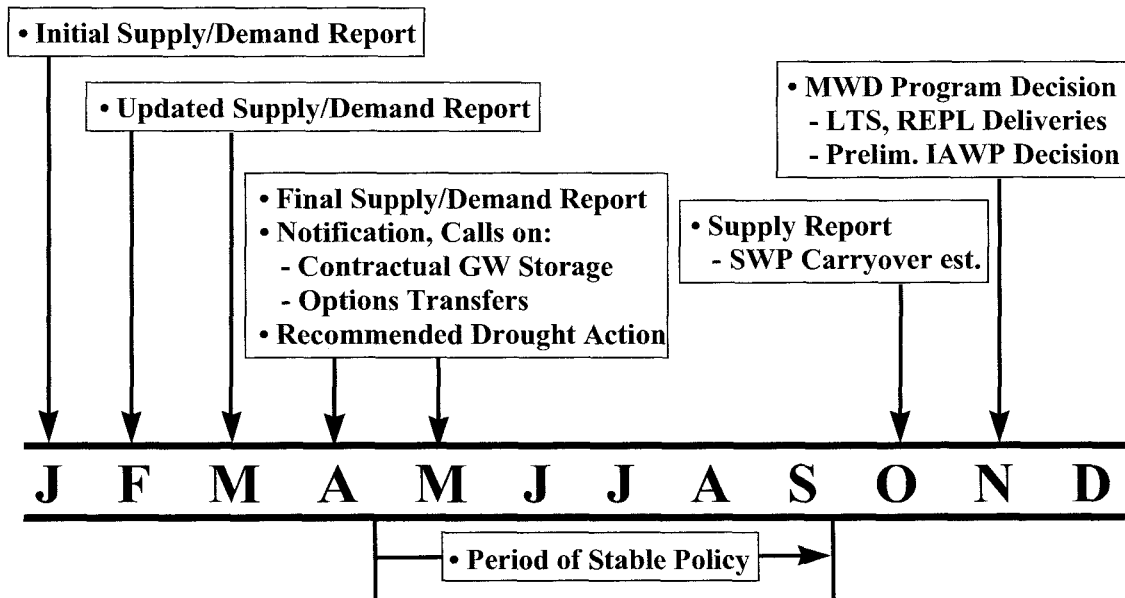


Figure 10 presents the annual schedule for actions taken in response to shortage conditions. Starting in January, an initial supply/demand report will be presented to the Metropolitan Board of Directors. SWP allocations are still only estimates in January and become more certain towards April and May. Demands for Metropolitan deliveries depend in part on how the winter hydrology develops and the condition of local supplies. These factors start to become known during the February-March period and will be reported to the Board in the Supply Report Update. By April-May, the outlook for imported supplies is known to a fairly high degree of certainty and a Final Supply Report will be produced. The May-September period will be one in which the import supply situation does not change drastically and drought policies can be implemented. Demands can be more or less than anticipated as a result of unusually hot or cool weather. At the end of summer, carryover SWP storage will be determined. October through December is a transitional period during which early assessments of available supplies for the following year will be made. During this period, Board actions would determine the management of various Metropolitan programs such as long-term seasonal (LTS) and IAWP deliveries. The following list presents major information and decision points during the year.

<b>Month</b>	<b><u>Information/Action</u></b>
<b>January</b>	<b>Initial Supply/Demand Reports</b>
<b>February, March</b>	<b>Updated Supply/Demand Reports</b>
<b>April, May</b>	<b>Final Supply/Demand Report</b>
	<b>Notification on Contractual GW and Options Transfer Programs</b>
	<b>Recommended Drought Actions</b>
<b>May-September</b>	<b>Stable Policy Period</b>
<b>October</b>	<b>Supply and Carryover Storage Report</b>
<b>November</b>	<b>MWD Program Decisions - LT Seasonal, Replenishment, IAWP</b>

**Figure 10. One Year of a Hypothetical Shortage -  
Supply and Demand Reports and Response Actions**



## **PUBLIC OUTREACH AND CONSERVATION**

Mechanisms are already in place to implement most of the water management actions and programs that are addressed in the WSDM Plan. Under the majority of supply and demand conditions, the actions of Metropolitan's Board of Directors, the General Manager, the operational activities of Metropolitan, and its member agencies would constitute all actions necessary to mitigate the shortage. Several aspects of the WSDM Plan, however, require additional attention to the administration of programs and actions. In particular, a shortage contingency requires special programs in the areas of public and governmental affairs and conservation. Metropolitan maintains an on-going public information program to encourage efficient water use. Public outreach programs are conducted at all times under both surplus and shortage conditions (see Figure 8). The actions discussed in this section constitute special actions in times of shortage.

During shortage conditions, public outreach will play a critical role in shaping consumer response. Public information campaigns need to send clear signals if extraordinary drought conservation is to achieve needed reductions in demands. Given Metropolitan's diverse set of customers and the varying impacts that shortages can have on different consumer groups, an effective public information campaign will require a joint effort among Metropolitan and its member agencies. Under this Plan, the administration of the Public Information and Government Affairs programs will be the responsibility of a Drought Program Officer (DPO). The DPO will be responsible for integrating the various activities in these areas, coordinating efforts with Metropolitan's Board of Directors and member agencies, and designing the region-wide messages for the general public and various target audiences. Important constituencies that have been identified in the process are residential users, business interests, agricultural users, elected officials, officials of various agencies (such as the Department of Water Resources), and the media.

Many conservation programs, such as Metropolitan's ultra-low flush toilet rebate program, are driven by member agency requests. Based on history, Metropolitan expects member agency requests to increase during droughts. Metropolitan is committed to increasing overall conservation program funding to meet member agency requests during droughts and attain higher levels of savings. These programs will be implemented by Metropolitan and member and local agency conservation staff. As many of the short-term conservation objectives during a shortage would be dependent upon an effective public information program, the Drought Program Officer will also be responsible for monitoring the effectiveness of the augmented conservation programs. A monthly conservation reporting process will be implemented. Quarterly estimates of regional conservation will be developed to track the progress of various actions in mitigating the shortage.

## **APPENDIX A: RESOURCE AND STORAGE SIMULATION**

The Water Surplus and Drought Management Plan (WSDM Plan) uses the Stages and Actions Matrix (Figure 8) as a guide for the operation of storage and transfers for the next ten years, 1999-2008.

Metropolitan asserts that the investments that Metropolitan and its member agencies have made in water supply and storage, managed in a coordinated manner as presented in the WSDM Plan, will be sufficient to assure that retail firm water demands will be met 100% of the time through the year 2008.

Metropolitan performed an extensive analysis of projected water demands, current and expected water supplies, along with hydrologic variations to support this assertion. Appendix A presents a summary of this analysis which includes statistical probabilities of actions under the WSDM Plan and two illustrative examples of how supply resources may be used in the future under worst-case drought events. Although the WSDM Plan is intended to be in effect through 2008, for the purposes of analysis the planning horizon was extended through 2010.

The WSDM Plan seeks to define the operational envelope for the Metropolitan system into the near future. Although the WSDM Plan only looks out ten years, it nonetheless involves the operation of some storage and water transfer projects that have not yet become fully operational. This makes the estimation of storage and transfers operations difficult. Compounding this problem is the lack of certainty around future demands, economic conditions, or even the weather over the next ten years. To manage these uncertainties, Metropolitan has developed a computer based simulation model called the Integrated Resources Planning Simulation Model or IRPSIM.

IRPSIM uses a modeling method known as sequentially indexed monte-carlo simulation. Simply put, the model looks at projected regional retail demand and supplies of water over the next twelve years and adjusts each, up or down, based on an assumed pattern of future weather. For instance, if Metropolitan expected the weather over the next twelve years (1999-2010) to be the same as the last twelve years (1987-1998), then IRPSIM would adjust the projected 1999 demands and supplies based on the historical 1987 hydrology, and adjust the projected 2000 demands and supplies using the historical 1988 hydrology, and so on. One obvious drawback to this approach is that Metropolitan does not know what future weather will be. Therefore, Metropolitan runs the models over and over again until all recorded hydrologies, 70 in all, have been tried. In this way, Metropolitan can look at probabilistic results of being in shortage year by year through 2010.

Although the projections of water supplies used in this analysis required certain assumptions to be made, they were based on most likely or probable outcomes. In most cases, projected water supplies represented projects that are currently operational, under construction, or in the final stages of negotiations. The following represents a summary of these assumptions:

- Local recycling and groundwater recovery: assumes currently operational projects with expected increases in supply yield as demand increases
- Conjunctive use groundwater storage: assumes Las Posas (under final stages of construction) and implementation of similar programs which are under negotiation (such as Raymond, Orange, and Chino Basins)
- Semitropic and Arvin-Edison storage: assumes use of both programs which are operational with water already stored

- Eastside Reservoir Project: assumes use of non-emergency storage from the reservoir currently under construction and an initial fill projected to start in approximately one year
- The Monterey Reservoirs: assumes use of State Water Project terminal reservoir supplies, Castaic and Perris Reservoirs, per the Monterey Amendment
- Colorado River Aqueduct: assumes a full aqueduct through the implementation of the California Plan (including lining of All American and Coachella canals, SD/IID water transfer/exchange, conjunctive use off-aqueduct storage, and river re-operations)
- State Water Project: assumes continuance of Bay-Delta Accord (with only current facilities)

One way of viewing the result of Metropolitan's WSDM Plan analyses is by summary statistics. Table A- 1 gives the probabilities of shortage actions over the next twelve years.

**Table A-1. Probability of Shortage Stage<sup>1</sup> by Forecast Year**

1999	13%	13%	11%	7%	3%	0%	0%
2000	13%	13%	11%	9%	3%	0%	0%
2001	19%	17%	13%	10%	6%	0%	0%
2002	19%	17%	13%	10%	4%	1%	0%
2003	19%	19%	14%	11%	4%	0%	0%
2004	20%	19%	16%	13%	4%	0%	0%
2005	21%	19%	17%	13%	6%	0%	0%
2006	21%	19%	19%	13%	6%	0%	0%
2007	23%	20%	19%	13%	4%	0%	0%
2008	26%	21%	19%	16%	6%	1%	0%
2009	26%	24%	19%	17%	6%	1%	0%
2010	26%	26%	19%	19%	6%	1%	0%

Table A-1 can be read in one of two ways, by column or row. The Stage 7 column indicates that there are no historical weather conditions that require allocation over the next twelve years. This is the single most important conclusion of the WSDM Plan analysis. The Stage 6 column indicates that only in a few years--2002, and 2008 through 2010--would Metropolitan need have a need for option or spot transfer water. Read by row, Table A-1 indicates that in the year 2008 there is a 21% likelihood of taking some water from the Eastside Reservoir Project, a 19% likelihood of taking water from Semitropic or Arvin-Edison storage programs, a 17% likelihood of interrupting long-term seasonal and replenishment deliveries for two years, and so on. It should be noted that these probabilities represent the best current estimates by Metropolitan, but are based entirely on historical weather conditions. Conditions that fall outside of historical ranges, either in duration or severity, are not represented by this data.

Another way to view the WSDM Plan analysis is by observing the operation of a single hydrology. Table A-2 provides an example of resource operations for the period 1999 through 2010 assuming a repeat of the 1923 through 1934 hydrology. The table provides descriptions of hydrologic conditions to aid in understanding the example.

---

<sup>1</sup> Stage 1 consists of withdrawal from the Eastside Reservoir Project. Stage 2 consists of the above plus withdrawals from the Semitropic and Arvin-Edison water storage and transfer projects. Stage 3 consists of the above plus an interruption of Long-Term Seasonal and Replenishment discount water. Stage 4 consists of the above plus withdrawal from contractual groundwater programs and the Monterey Reservoirs. Stage 5 consists of the above plus a call for extraordinary drought conservation and interruption in agricultural discount water. Stage 6 consists of the above plus calls on option contract water and purchases of water on the open market. Stage 7 consists of the above plus allocation of remaining shortages. For a full description of stages and action, see Surplus and Shortage Resource Actions section and Figure 8 above.



For instance, 1923 was considered to be a dry year in southern California (defined as less than 9 inches of rain at the Los Angeles Civic Center) and is categorized by the California Department of Water Resources (DWR) as a below normal year for State Water Project deliveries. In this example, 1923 weather increases southern California's demand for water and decreases imported State Water Project supplies. The Colorado River Aqueduct supplies are influenced by yet another hydrologic indicator, but for the next ten year Metropolitan expects the Aqueduct to be full.

Table A-2 indicates that retail water demands in 1999, assuming a 1923 hydrology, will be 3.979 million acre-feet (maf). Adding expected long-term seasonal and replenishment demands of 0.165 maf gives a regional total water demand of 4.144 maf. After subtracting local supplies of 2.192 maf, which are also adjusted for 1923 weather, Metropolitan expects to see a demand of 1.952 maf. In 1999, under a 1923 hydrology, Metropolitan expects to see 2.954 maf of supply. This is enough to meet all expected demands and put over 1.0 maf into storage.

The 1923 through 1934 hydrology is significant because it starts and ends dry with little recovery in the middle. However, even in these most adverse conditions the actions proposed by the WSDM Plan provides the region with enough water to avoid shortage allocation. Again the most important result of this example is read from the last line, which indicates that there are no remaining shortages through 2008

Table A-3 provides a second example of using the 1980 through 1991 hydrology. This hydrology contains the most significant drought in recent record, ending with a critically dry year on the State Water Project that is expected to yield a mere 0.389 maf. However, even under these conditions the WSDM Plan provides a method to avoid firm water allocation.

The analyses performed using the prioritized action of the Stages and Actions Matrix support Metropolitan's assertion that water supply reliability can be attained through the use of regional storage, interruption of discounted water supplies, and transfers. And, through the implementation of the WSDM Plan, Metropolitan does not expect to allocate firm water deliveries for at least the next ten years.

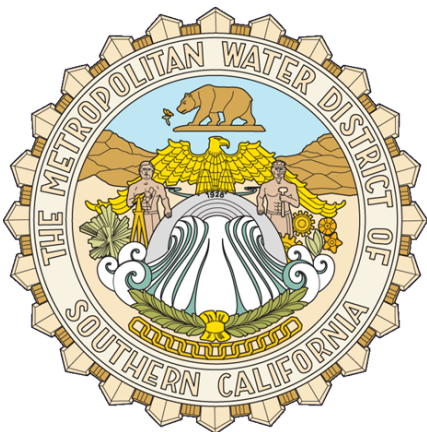




# Water Supply Allocation Plan



December 2014 Revision



Metropolitan Water District of  
Southern California

Inside cover: Photo courtesy of Cora Edmonds/ArtXchange for the Healing Planet

# Water Supply Allocation Plan

---

## Table of Contents

List of Acronyms.....	3
Definitions .....	3
Section 1: Introduction .....	4
Section 2: Development Process .....	4
Member Agency Input .....	4
Board of Directors Input .....	4
The 12-Month Review Process .....	5
The Three-Year Review Process .....	5
2014 Review Process.....	6
Section 3: Review of Historical Shortage Plans.....	7
Interruptible Water Service Program.....	7
Incremental Interruption and Conservation Plan .....	7
1995 Drought Management Plan.....	7
1999 Water Surplus and Drought Management Plan.....	7
Section 4: Water Supply Allocation Formula .....	8
Base Period Calculations .....	8
Allocation Year Calculations.....	9
Water Supply Allocation Calculations .....	10
Section 5: WSAP Implementation.....	13
Allocation Period.....	13
Setting the Regional Shortage Level .....	13
Exit Strategy .....	14
Allocation Appeals Process .....	14
Allocation Surcharge .....	14
Tracking and Reporting .....	16
Key Dates for Water Supply Allocation Implementation.....	16
Appendix A: Metropolitan Member Agencies .....	18
Appendix B: Water Supply Allocation Plan Process Timeline .....	19
Appendix C: 12-Month Review Process and Results .....	21
Appendix D: Three-Year Review Process and Results.....	23
Appendix E: 2014 Review Process and Results .....	25
Appendix F: Summary of Historical Shortage Plans.....	27
Appendix G: Water Supply Allocation Formula Example.....	28
Appendix H: Board Policy Principles on Determining the Status of Extraordinary Supply.....	34
Appendix I: Base Period Mandatory Rationing Adjustment .....	35

Appendix J: Per-Capita Water Use Minimum Example.....	36
Appendix K: Qualifying Income-Based Rate Allocation Surcharge Adjustment Example.....	39
Appendix L: Groundwater Replenishment Allocation .....	41
Appendix M: Water Rates, Charges, and Definitions.....	42
Appendix N: Allocation Appeals Process .....	43
Appendix O: Appeals Submittal Checklist .....	46

## **List of Tables and Figures**

Table 1: Shortage Allocation Index .....	10
Table 2: Allocation Surcharge .....	15
Table 3: Board Adopted Allocation Timeline .....	17
Table 4: Member Agencies .....	18
Table 5: Historical Shortage Plan Overview .....	27
Figure 1: Base Period Retail Demand Calculation .....	28
Figure 2: Allocation Year Retail Demand Calculation .....	29
Figure 3: Allocation Year Wholesale Demand Calculation.....	30
Figure 4: WSAP Allocation Regional Shortage Level 4 .....	33
Table 6: Total Retail Level Allocation Year Supplies .....	37
Table 7: Total Per-Capita Water Use Adjustment.....	38
Table 8: Residential Per-Capita Water Use Adjustment .....	38
Table 9: Water Rates and Charges .....	42
Figure 1: Base Period Retail Demand Calculation .....	28
Figure 2: Allocation Year Retail Demand Calculation .....	29
Figure 3: Allocation Year Wholesale Demand Calculation.....	30
Figure 4: WSAP Allocation Regional Shortage Level 4 .....	33



## List of Acronyms

AF – Acre-feet  
CUP – Groundwater Conjunctive Use Program  
CWD – County Water District  
DWP – Drought Management Plan  
IAWP – Interim Agricultural Water Program Reductions and Rates  
IICP – Incremental Interruption and Conservation Plan  
IRP – Integrated Resources Plan  
GPCD – Gallons per Capita per Day  
M&I – Municipal and Industrial  
MWD – Municipal Water District  
RUWMP – Regional Urban Water Management Plan  
SWP – State Water Project  
WSAP – Water Supply Allocation Plan  
WSDM – Water Surplus and Drought Management

## Definitions

**Extraordinary Supplies-** Deliberate actions taken by member agencies to augment the total regional water supply only when Metropolitan is allocating supplies through the WSAP.

**Groundwater Recovery-** The extraction and treatment of groundwater making it usable for a variety of applications by removing high levels of chemicals and/or salts.

**In-lieu deliveries-** Metropolitan-supplied water bought to replace water that would otherwise be pumped from the groundwater basins.

**Seawater Barrier-** The injection of fresh water into wells along the coast to protect coastal groundwater basins from seawater intrusion. The injected fresh water acts like a wall, blocking seawater that would otherwise seep into groundwater basins as a result of pumping.

## **Section 1: Introduction**

Calendar Year 2007 introduced a number of water supply challenges for the Metropolitan Water District of Southern California (Metropolitan) and its service area. Critically dry conditions affected all of Metropolitan's main supply sources. In addition, a ruling in the Federal Courts in August 2007 provided protective measures for the Delta Smelt in the Sacramento-San Joaquin River Delta which brought uncertainty about future pumping operations from the State Water Project. This uncertainty, along with the impacts of dry conditions, raised the possibility that Metropolitan would not have access to the supplies necessary to meet total firm demands<sup>1</sup> and would have to allocate shortages in supplies to the member agencies.<sup>2</sup>

In preparing for this possibility, Metropolitan staff worked jointly with the member agency managers and staff to develop a Water Supply Allocation Plan (WSAP). The WSAP includes the specific formulas for calculating member agency supply allocations and the key implementation elements needed for administering an allocation should a shortage be declared. The WSAP became the foundation for the urban water shortage contingency analysis required under Water Code Section 10632 and was incorporated into Metropolitan's 2010 Regional Urban Water Management Plan (RUWMP).

## **Section 2: Development Process**

### **Member Agency Input**

Between July 2007 and February 2008, Metropolitan staff worked cooperatively with the member agencies through a series of member agency manager meetings and workgroups to develop a formula and implementation plan to allocate supplies in case of shortage. These workgroups provided an arena for in-depth discussion of the objectives, mechanics, and policy aspects of the different parts of the WSAP. Metropolitan staff also met individually with fifteen member agencies for detailed discussions of the elements of the recommended proposal. Metropolitan introduced the elements of the proposal to many nonmember retail agencies in its service area by providing presentations and feedback to a number of member agency caucuses, working groups, and governing boards. The discussions, suggestions, and comments expressed by the member agencies during this process contributed significantly to the development of this WSAP.

### **Board of Directors Input**

Throughout the development process Metropolitan's Board of Directors was provided with regular progress reports on the status of this WSAP, with oral reports in September, October, and December 2007, an Information Board of Directors Letter with a draft of the WSAP in November 2007, and a Board of Directors Report with staff recommendations in January 2008. Based on Water Planning and Stewardship Committee discussion of the staff recommendations and further review of the report by

---

<sup>1</sup> Firm demands are also referred to as uninterruptable demands; likewise non-firm demands are also called interruptible demands.

<sup>2</sup> See Appendix A: Metropolitan Member Agencies.

the member agencies, refinements were incorporated into the WSAP for final consideration and action in February 2008. The WSAP was adopted at the February 12, 2008 Board of Directors meeting.<sup>3</sup>

### **The 12-Month Review Process**

When the Board adopted the WSAP in February 2008, the decision specified a formal revisit of the WSAP commencing in February 2010. The scheduled revisit was meant to ensure the opportunity for Metropolitan staff and the member agencies to re-evaluate the WSAP and recommend appropriate changes to the Board of Directors.

In April 2009, the Board voted to implement the WSAP for the first time. The WSAP was implemented at a Level 2 allocation level, and was in effect for the period of July 1, 2009, through June 30, 2010. Since implementation of the 2009/10 WSAP began in July 2009, a number of practical issues relating to the WSAP were identified by staff and the member agencies for further consideration during the 12-Month Review Process. Metropolitan staff engaged with the member agencies in a formal review of the WSAP from January through May 2010. During the review process the member agency managers participated in a series of six workshops. The focus of these workshops was to facilitate in-depth discussion on WSAP-related issues and lessons learned since the WSAP was implemented in July 2009. The proposed adjustments to the WSAP developed during the review process were adopted at the August 17, 2010 Board of Directors meeting<sup>4</sup>.

### **The Three-Year Review Process**

The Board action to adopt of the WSAP in February 2008 also directed staff to review the WSAP formula three years after the February 2008 adoption. February 2011 marked the three-year anniversary since the adoption of the WSAP. Similar to the 12-Month Review Process, the purpose of the Three-Year Review Process was to provide an opportunity for Metropolitan staff and the member agencies to re-evaluate the plan and recommend appropriate changes for board consideration.

Metropolitan staff met with the member agencies in a formal review of the WSAP from February through August 2011. Staff and member agency managers participated in a series of eleven workshops. Proposed adjustments to the WSAP developed during the process were adopted at the September 13, 2011 Board of Directors meeting.<sup>5</sup>

---

<sup>3</sup> A complete listing of member agency meetings and Board of Directors reporting activities is contained in Appendix B: Water Supply Allocation Plan Process Timeline.

<sup>4</sup> A complete listing of member agency meetings and Board of Directors reporting activities is contained in Appendix C: 12-Month Review Process and Results.

<sup>5</sup> A complete listing of member agency meetings and Board of Directors reporting activities is contained in Appendix D: Three-Year Review Process and Results.

## 2014 Review Process

In 2014, California was challenged with a third year of severe drought.<sup>6</sup> Metropolitan managed its operations through significant use of regional storage reserves. It was anticipated that end of year total dry storage reserves would approach levels similar to those when the WSAP was last implemented in 2009.

Following discussion at the June 2014 Water Planning and Stewardship Committee, Metropolitan staff convened a member agency working group to revisit the WSAP. The purpose of the working group was to collaborate with member agencies to identify potential revisions to the WSAP in preparation for mandatory supply allocations in 2015. There were eight working group meetings and three discussions at the monthly Member Agency Managers' Meetings.

The process focused on three areas of the WSAP: the Base Period, the Allocation Formula, and the Allocation enforcement mechanism. Proposed adjustments to the WSAP developed during the process were adopted at the December 9, 2014 Board of Directors meeting.<sup>7</sup>

---

<sup>6</sup> The Governor of California proclaimed a State of Emergency due to drought conditions on January 17, 2014 and, on April 24, 2014 issued an Executive Order proclaiming a continued State of Emergency noting drought conditions have persisted for the last three years and authorizing adoption and implementation of emergency regulations.

<sup>7</sup> A complete listing of member agency meetings and Board of Directors reporting activities is contained in Appendix E: 2014 Review Process and Results.

### **Section 3: Review of Historical Shortage Plans<sup>8</sup>**

The WSAP incorporates key features and principles from the following historical shortage allocation plans but will supersede them as the primary and overarching decision tool for water shortage allocation.

#### **Interruptible Water Service Program**

As part of the new rate structure implemented in 1981, Metropolitan's Board of Directors adopted the Interruptible Water Service Program (Interruptible Program) which was designed to address short-term shortages of imported supplies. Under the Interruptible Program, Metropolitan delivered water for particular types of use to its member agencies at a discounted rate. In return for this discounted rate, Metropolitan reserved the right to interrupt delivery of this Interruptible Program water so that available supplies could be used to meet municipal and industrial demands.

#### **Incremental Interruption and Conservation Plan**

The ability to interrupt specific deliveries was an important element of Metropolitan's strategy for addressing shortage conditions when it adopted the Incremental Interruption and Conservation Plan (IICP) in December 1990. Reductions in IICP deliveries were used in concert with specific objectives for conservation savings to meet needs during shortages. The IICP reduced Interruptible Service deliveries in stages and provided a pricing incentive program to insure that reasonable conservation measures were implemented.

#### **1995 Drought Management Plan**

The 1995 Drought Management Plan (DMP) was a water management and allocation strategy designed to match supply and demand in the event that available imported water supplies were less than projected demands. Adopted by the Metropolitan Board of Directors in November 1994, the 1995 DMP was a short-term plan designed to provide for the 1995 calendar year only. The primary objective of the 1995 DMP was to identify methods to avoid implementation of mandatory reductions. The 1995 DMP included various phases and a step-by-step strategy for evaluating supply and demand conditions and utilizing Metropolitan's available options, with the final phase being implementation of the revised IICP.

#### **1999 Water Surplus and Drought Management Plan**

Metropolitan staff began work on the Water Surplus and Drought Management (WSDM) Plan in March 1997 as part of the Integrated Water Resources Plan (IRP), which was adopted by Metropolitan's Board of Directors in January 1996. The IRP established regional water resource targets, identifying the need for developing resource management policy to guide annual operations. The WSDM Plan defined Metropolitan's resource management policy by establishing priorities for the use of regional resources to achieve the region's reliability goal identified in the IRP. In April 1999, Metropolitan's Board of Directors adopted the WSDM Plan.

---

<sup>8</sup> A summary of the key elements in the following allocation plan is found in Appendix F: Summary of Historical Shortage Plans.

The WSDM Plan also included a set of principles and considerations for staff to address when developing specific allocation methods. The WSDM Plan stated the following guiding principle to be followed in developing any future allocation scheme:

*“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.”<sup>9</sup>*

This principle reflects a central desire for allocation methods that are both equitable and minimize regional hardship to retail water consumers. The specific considerations postulated by the WSDM Plan to accomplish this principle include the following:<sup>10</sup>

- The impact on retail customers and the economy
- Allowance for population and growth
- Change and/or loss of local supply
- Reclamation/Recycling
- Conservation
- Investment in local resources
- Participation in Metropolitan’s interruptible programs
- Investment in Metropolitan’s facilities.

## **Section 4: Water Supply Allocation Formula**

Based on the guiding principle and considerations described in the WSDM Plan, Metropolitan staff and the member agencies developed a specific formula for allocating water supplies in times of shortage. The formula seeks to balance the impacts of a shortage at the retail level while maintaining equity on the wholesale level, and takes into account growth, local investments, changes in supply conditions and the demand hardening<sup>11</sup> aspects of non-potable recycled water use and the implementation of conservation savings programs. The formula, described below, is calculated in three steps: base period calculations, allocation year calculations, and supply allocation calculations.<sup>12</sup> The first two steps involve standard computations, while the third section contains specific methodology developed for this WSAP.

### **Base Period Calculations**

The first step in calculating a water supply allocation is to estimate 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 demand and supply is calculated using data from the fiscal years (July through June) ending 2013 and 2014.<sup>13</sup>

---

<sup>9</sup> WSDM Plan, p. 1. Emphasis added.

<sup>10</sup> WSDM Plan, p. 2.

<sup>11</sup> Demand hardening is the effect that occurs when all low-cost methods of decreasing overall water demand have been applied (e.g., low-flow toilets, water recycling) and the remaining options to further decrease demand become increasingly expensive and difficult to implement.

<sup>12</sup> Detailed operational elements of these objectives and a numerical example are discussed in Appendix G: Water Supply Allocation Formula Example.

<sup>13</sup> Exceptions to this methodology are noted in the descriptions of base period calculations.



**Base Period Local Supplies:** Local supplies for the base period are calculated using a two-year average of groundwater production, groundwater recovery, Los Angeles Aqueduct supply, surface water production, and other imported supplies. Non-potable recycling production is not included in this calculation due to its demand hardening effect.

**Base Period Wholesale Demands:** Demands on Metropolitan for the base period are calculated using a two-year average of firm purchases and in-lieu deliveries to long-term groundwater replenishment, conjunctive use, cyclic, and supplemental storage programs.

**Base Period Retail Demands:** Total retail-level municipal and industrial (M&I) demands for the base period are calculated by adding the Base Period Wholesale Demands and the Base Period Local Supplies. This estimates an average total demand for water from each agency.

**Base Period Mandatory Conservation Credit:** Metropolitan allows a consultation process that enables member agencies to describe mandatory water use restrictions and/or rationing restrictions that were in place within their service areas during the Base Period. Restrictions may vary among agencies but include restricted water uses, fines, and water budget or penalty based rate structures that are enacted by the governing body of the member agency or retail agency. Following the consultation process, Metropolitan staff will recommend adjustments based on evidence of reduced GPCD. To qualify for an adjustment, GPCD reductions would have to be observed that are beyond those expected from the agency's ongoing conservation efforts and trends.

## Allocation Year Calculations

The next step in calculating the 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 or economic growth and changes in local supplies.

**Allocation Year Retail Demands:** Total retail M&I demands for the allocation year are calculated by adjusting the Base Period Retail Demands for baseline inflation and growth.

**Baseline Inflation Adjustment:** Baseline inflation occurs when non-potable recycling or conservation is developed after the Base Period. The development of these supplies reduces actual demands for water in the Allocation Year. Because non-potable-recycling and conservation are excluded from the WSAP formula, the actual need for water in the Allocation year is overestimated. The Baseline Inflation Adjustment removes increases in non-potable recycling and conservation annually from the Base Period forward to better reflect the true need for water in the Allocation Year.

**Growth Adjustment:** The growth adjustment is calculated using the estimated actual annual rate of population growth at the county level, as generated by the California Department of Finance, whenever possible. For years without complete data, the growth rate is calculated using an average of the three most recent years available. Growth will be allocated based on historical per capita water use during the Base Period, with a cap equal to Metropolitan's IRP Target for Water Use Efficiency. For

allocation years up to and including 2014, the cap will be 163 GPCD, and for allocation years 2015-2020 the cap will reduce linearly from 163 to 145 GPCD. On an appeals basis, member agencies may request that their adjustment be calculated using member agency level population growth. A weighted combination of actual population and actual employment growth rates may also be requested.

**Allocation Year Local Supplies:** Allocation Year Local Supplies include groundwater production, groundwater recovery, Los Angeles Aqueduct supply, surface water production, seawater desalination, and other imported supplies. Estimates of Allocation Year Local Supplies are provided by the member agencies upon implementation of a WSAP. If estimates are not provided, Metropolitan will use the sum of the Base Period Local Supplies and Base Period In-Lieu Deliveries as a default. Agencies may provide updated estimates at any time during the Allocation Year to more accurately reflect their demand for Metropolitan supplies.

**Extraordinary Supplies:** Under the WSAP formula, local supply production in the Allocation Year can either be designated as a “planned” supply, or as an “extraordinary” supply.<sup>14</sup> This is an important designation for a member agency because the two types of supplies are accounted for differently in the WSAP formula. Local supplies classified at Extraordinary Supply are only partially included (scaled depending on the WSAP Level) as local supplies. This has the effect of providing significantly more benefit to the member agency in terms of total water supply that is available to the retail customer.<sup>15</sup>

**Allocation Year Wholesale Demands:** Demands on Metropolitan for the allocation year are calculated by subtracting the Allocation Year Local Supplies from the Allocation Year Retail Demands.

## Water 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. The following table displays the elements that form the basis for calculating the supply allocation. Each element and its application in the allocation formula are discussed below.

Table 1: Shortage Allocation Index		
(a) Regional Shortage Level	(b) Wholesale Minimum Percentage	(c) Maximum Retail Impact Adjustment Percentage
1	92.5%	2.5%
2	85.0%	5.0%
3	77.5%	7.5%
4	70.0%	10.0%

<sup>14</sup> Appendix H: Board Policy Principles on Determining the Status of Extraordinary Supply lists the key Board principles used in determining if a supply qualifies as an Extraordinary Supply.

<sup>15</sup> See Appendix G: Water Supply Allocation Formula Example for specific allocation formulae.

5	62.5%	12.5%
6	55.0%	15.0%
7	47.5%	17.5%
8	40.0%	20.0%
9	32.5%	22.5%
10	25.0%	25.0%

**Regional Shortage Level:** The WSAP formula allocates shortages of Metropolitan supplies over ten levels.

**Wholesale Minimum Allocation:** The Wholesale Minimum Allocation ensures a minimum level of Metropolitan supplied wholesale water service to each member agency.

**Maximum Retail Impact Adjustment:** The purpose of this adjustment is to ensure that agencies with a high level of dependence on Metropolitan do not experience disparate shortages at the retail level compared to other agencies when faced with a reduction in wholesale water supplies. The Maximum Retail Impact Percentage is prorated on a linear scale based on each member agency's dependence on Metropolitan at the retail level. This percentage is then multiplied by the agency's Allocation Year Wholesale Demand to determine an additional allocation.

**Conservation Demand Hardening Credit:** The Conservation Demand Hardening Credit addresses the increased difficulty in achieving additional water savings at the retail level that comes as a result of successful implementation of water conserving devices and conservation savings programs. To estimate conservation savings, each member agency will establish a historical baseline Gallons Per Person Per Day (GPCD) calculated in a manner consistent with California Senate Bill SBx7-7.<sup>16</sup> Reductions from the baseline GPCD to the Allocation Year are used to calculate the equivalent conservation savings in acre-feet. The Conservation Demand Hardening Credit is based on an initial 10 percent of the GPCD-based Conservation savings plus an additional 5 percent for each level of Regional Shortage set by the Board during implementation of the WSAP. The credit will also be adjusted for:

- The overall percentage reduction in retail water demand
- The member agency's dependence on Metropolitan

The credit is calculated using the following formula:

$$\text{Conservation Demand Hardening Credit} = \text{Conservation Savings} \times (10\% + \text{Regional Shortage Level Percentage}) \times (1 + ((\text{Baseline GPCD} - \text{Allocation Year GPCD}) / \text{Baseline GPCD})) \times \text{Dependence on MWD Percentage}$$

<sup>16</sup> California Department of Water Resources, February 2011, "Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use. Available at: [http://www.water.ca.gov/wateruseefficiency/sb7/docs/MethodologiesCalculatingBaseline\\_Final\\_03\\_01\\_2011.pdf](http://www.water.ca.gov/wateruseefficiency/sb7/docs/MethodologiesCalculatingBaseline_Final_03_01_2011.pdf)

This provides a base demand hardening credit equal to 10 percent of conservation savings and increases the credit as deeper shortages occur, which is when conservation demand hardening has a bigger impact on the retail consumer. The credit also increases based on the percentage of an agency's demand that was reduced through conservation. This accounts for increased hardening that occurs as increasing amounts of conservation are implemented. Lastly, the credit is scaled to the member agency's dependence on Metropolitan to ensure that credits are being applied to the proportion of water demand that is being affected by reductions in Metropolitan supply.

**Minimum Per-Capita Water Use Credit:** This adjustment creates a minimum per capita water use threshold. Member agencies' retail-level water use is compared to two different thresholds. The proposed minimum thresholds are based upon compliance guidelines established under Senate Bill X7-7.

- 100 GPCD total water use
- 55 GPCD residential water use

Agencies that fall below either threshold under the WSAP will receive additional allocation from Metropolitan to bring them up to the minimum GPCD water use level. If an agency qualifies under both thresholds, the one resulting in the maximum allocation adjustment will be given.<sup>17</sup> To qualify for this credit, member agencies must provide documentation of the total agency level population and the percent of retail level demands that are residential; no appeal is necessary.

**Total WSAP Allocation:** The allocation to an agency for its M&I retail demand is the sum of the Wholesale Minimum Allocation, the Retail Impact Adjustment, the Conservation Demand Hardening Credit, and the Minimum Per-Capita Water Use Credit.<sup>18</sup>

**Total Metropolitan Supply Allocations:** In addition to the WSAP Allocation described above, agencies may also receive separate allocations of supplies for and seawater barrier and groundwater replenishment demands. Allocations of supplies to meet seawater barrier demands are to be determined by the Board of Directors independently but in conjunction with the WSAP. Separating the seawater barrier allocation from the WSAP allocation allows the Board to consider actual barrier requirements in the Allocation Year and address the demand hardening issues associated with cutting seawater barrier deliveries. According to the principles outlined for allocating seawater barrier demands, allocations should be no deeper than the WSAP Wholesale Minimum Percentage implemented at that time.

The WSAP also provides a limited allocation for drought-impacted groundwater basins based on the following framework:<sup>19</sup>

---

<sup>17</sup> See Appendix J: Per Capita Water Use Minimum Example for specific minimum per-capita water use credit formulae and example.

<sup>18</sup> See Appendix G: Water Supply Allocation Formula Example for specific allocation formulae.

<sup>19</sup> See Appendix L: Groundwater Replenishment Allocation for more information.

1. Metropolitan staff will hold a consultation with the requesting member agency and the appropriate groundwater basin manager to document whether the basin is in one of the following conditions:
  - a. Groundwater basin overdraft conditions that will result in water levels being outside normal operating ranges during the WSAP allocation period; or
  - b. Violations of groundwater basin water quality and/or regulatory parameters that would occur without imported deliveries
2. An allocation is provided based on the verified need for groundwater replenishment. The allocation would start with a member agency's ten-year average purchases of imported groundwater replenishment supplies (excluding years in which deliveries were curtailed). The amount would then be reduced by the declared WSAP Regional Shortage Level.

## **Section 5: WSAP Implementation**

The WSAP will take effect if a regional shortage is declared by the Board of Directors. The following implementation elements are necessary for administering the WSAP during a time of shortage. These elements cover the processes needed to declare a regional shortage level as well as provide information pertaining to the allocation surcharge.

### **Allocation Period**

The allocation period covers twelve consecutive months, from July of a given year through the following June. This period was selected to minimize the impacts of varying State Water Project (SWP) allocations and to provide member agencies with sufficient time to implement their outreach strategies and rate modifications.

### **Setting the Regional Shortage Level**

Metropolitan staff is responsible for recommending a Regional Shortage Level for the Board of Directors' consideration. The recommendation shall be based on water supply availability, and the implementation of Metropolitan's water management actions as outlined in the WSDM Plan.

Metropolitan staff will keep the Board of Directors apprised to the status of water supply conditions and management actions through monthly reports to the Water Planning and Stewardship Committee. To further facilitate staff in the development of a recommended regional shortage level, member agency requests for local supply adjustments shall be submitted by April 1<sup>st</sup>.

Metropolitan's Board of Directors, through the Water Planning and Stewardship Committee, is responsible for approving the final Regional Shortage Level at its April meeting. By the April meeting, the majority of the winter snowfall accumulation period will have passed and will allow staff to make an allocation based on more stable water supply estimates. Barring unforeseen large-scale circumstances, the Regional Shortage Level will be set for the entire allocation period, which will provide the member agencies an established water supply level for their planning.

## Exit Strategy

While the Board ultimately has discretion to implement or lift an allocation at any point of time during the year; the WSAP includes a two-part exit strategy that is meant to streamline the WSAP implementation decision making process.

- If the Board decides to implement the WSAP, then any current WSAP allocation would remain in place until the end of the Allocation Year.
- If the Board decides not to implement the WSAP, then any current WSAP allocation would be terminated concurrent with the Board decision.

## Allocation Appeals Process

An appeals process is necessary for the administration of any changes or corrections to an agency's allocation. Metropolitan's General Manager will designate, subsequent to a declaration of an allocation by the Board of Directors, an Appeals Liaison as the official point of contact for all information and inquiries regarding appeals. All member agency General Managers will be notified in writing of the name and contact information of the Appeals Liaison. Only appeals that are made through the Appeals Liaison and in accordance with the provisions outlined in Appendix N: Allocation Appeals Process will be evaluated. Basis for appeals claims can include but are not limited to:

- Adjusting erroneous historical data used in base period calculations
- Adjusting for population growth rates
- Determining if a local supply qualifies as Extraordinary Supply

Additional details and a checklist for the appeals process are available in Appendix N: Allocation Appeals Process and Appendix O: Appeals Submittal Checklist.

## Allocation Surcharge

Member agency allocations are supported by an Allocation Surcharge. The Allocation Surcharge is charged to water use above the Member Agency allocation and is charged in addition to Metropolitan's standard rates for water service. Allocation Surcharges will only be assessed to the extent that an agency's total annual usage exceeds its total annual allocation. Any revenues collected through the Allocation Surcharge will be applied towards Metropolitan's Water Management Fund, which is used to in part to fund expenditures in dry-year conservation. No billing or assessment of allocation surcharges rates will take place until the end of the twelve-month allocation period.

**Allocation Surcharge:** The application of the Allocation Surcharge structure is a two tier structure that provides a lower level of Allocation Surcharge for minor overuse of allocations and a higher level of Allocation Surcharge for major overuse of allocations. The structure and applicable Allocation Surcharges are listed in Table 2.



Table 2: Allocation Surcharge			
Water Use	Base Water Rate <sup>20</sup>	Allocation Surcharge <sup>21</sup>	Total Rate
100% of Allocation	Tier 1	0	Tier 1
Between 100% and 115%	Tier 1	\$1,480	Tier 1 + (\$1,480)
Greater than 115%	Tier 1	\$2,960	Tier 1 + (\$2,960)

**Qualifying Income-Based Rate Allocation Surcharge Adjustment:**<sup>22</sup> Any Allocation Surcharges incurred by a member agency under the WSAP will be adjusted to reflect the extent to which retail customers within a member agency’s service area are served under a “lifeline” or similar qualified discounted rate program based on income or ability to pay (“Income-Based Rate”).

Any member agency who is assessed Allocation Surcharges under the WSAP may submit an acre-foot equivalent of water used by retail customers served under a qualifying Income-Based Rate.<sup>23</sup> This amount of water use would be multiplied by the percentage of retail-level reduction in allocation year demand necessary for that member agency to avoid exceeding its WSAP allocation. The monetary amounts resulting from these acre feet are subtracted from the total monetary amounts incurred by an agency for exceeding its allocation. In the case that the monetary amounts associated with the Income-Based Rate are greater than the total Allocation Surcharges an agency incurs, no Allocation Surcharges will be incurred. The end result of this adjustment is that the member agency will not be subject to Allocation Surcharges for the use of water by their retail customers served under a qualifying Income-Based Rate.

**Growth Rate Allocation Surcharge Adjustment:** In recognition of member agency differences in geography and climate, a Growth Rate Allocation Surcharge Adjustment will be given to any agency that exceeds its WSAP Allocation. The Allocation Surcharge reduction will be based on the difference in acre-feet between the Growth Adjustment applied at Metropolitan’s IRP planning goal rate, and the greater of the following:

- The IRP planning goal rate adjusted for the member agency’s ETo, or
- The member agency’s certified and documented 20x2020 targeted GPCD

If both of these alternatives result in a lower growth adjustment than the IRP planning goal, no Allocation Surcharge reduction will be made.

<sup>20</sup> The base water rate shall be the applicable water rate for the water being purchased. In most cases, it will be the Tier 1 rate (plus Treatment Surcharge for treated water deliveries). However, it is possible that the water being purchased would be in the amount that would put an agency beyond its Tier 1 limit. In that case, the base water rate will be the Tier 2 rate (plus Treatment Surcharge for treated water deliveries).

<sup>21</sup> Allocation Surcharge is applied to water use in excess of an agency’s WSAP allocation.

<sup>22</sup> See Appendix K: Qualifying Income-Based Rate Allocation Surcharge Adjustment Example for specific penalty adjustment formulae and example.

<sup>23</sup> Appropriate documentation and certification will be required.

## Tracking and Reporting

Subsequent to a declared regional shortage by the Board of Directors, Metropolitan staff will produce monthly reports of each member agency's water use compared to its allocations based on monthly delivery patterns to be submitted by the member agency. In order to produce these reports, member agencies are requested to submit their local supply use on a monthly basis and certify end of allocation year local supply use. These reports and comparisons are to be used for the purposes of tracking and communicating potential underage/overage of an agency's annual allocations.

## Key Dates for Water Supply Allocation Implementation

The timeline for implementation of an allocation is shown in Table 3. A brief description of this timeline follows:

**January to March:** Water Surplus and Drought Management reporting occurs at Metropolitan's Water Planning and Stewardship Committee meetings. These reports will provide updated information on storage reserve levels and projected supply and demand conditions.

**April:** Member agencies report their projected local supplies for the coming allocation year. This information is incorporated in staff analysis of storage reserves and projected supply and demand conditions in order to provide an allocation recommendation to the Board. Metropolitan's Board will consider whether an allocation is needed. A declaration of an allocation will include the level of allocation to be in effect for the allocation year. Likewise, member agencies will report their projected demands and local supplies needed to meet seawater barrier and groundwater replenishment requirements for the allocation year. Metropolitan's Board will consider whether allocations for seawater barrier demands and groundwater replenishment demands are needed independently from the WSAP allocation decision.**July 1<sup>st</sup>:** If the Board declared an allocation in April, then it will be effective starting July 1<sup>st</sup>. The allocation level will be held through June 30<sup>th</sup>, barring unforeseen circumstances. Member agencies will now be requested to submit their local supply use on a monthly basis and certify end of allocation year local supply use. Local production data must be reported to Metropolitan by the end of the month following the month of use (use in July must be reported by the end of August). This information will be combined with Metropolitan sales information in order to track retail water use throughout Metropolitan's service area. Each month Metropolitan will report on member agency water sales compared to their allocation amounts.

**June 30<sup>th</sup>:** The allocation year is complete.

**July:** Member agency local supplies must be certified for the month of June, the last month of the previous allocation year.

**August:** Metropolitan will calculate each member agency's total potable water use based on local supply certifications and actual sales data for the allocation year of July through June. Allocation surcharges will be assessed for usage above a given member agency's final adjusted allocation (reflecting the actual local supply and imported water use that occurred in the allocation year).

Table 3: Board Adopted Allocation Timeline						
Year	Month	Year 1 Board Decision	Year 1 Allocation Year	Year 2 Board Decision	Year 2 Allocation Year	
Year 1	January	Declaration *				
	February					
	March					
	April					
	May		<u>Effective Period</u> Continuous Tracking of Member Agency Local Supply and Imported Water Use			
	June					
	July					
	August					
	September					
	October					
	November					
	December					
Year 2	January			Declaration *		
	February					
	March					
	April					
	May		Assess			
	June					
	July			<u>Effective Period</u> Continuous Tracking of Member Agency Local Supply and Imported Water Use		
	August					
	September					
	October					
	November					
	December					
Year 3	January					
	February					
	March					
	April					
	May					
	June					

\*Member agency projections of local supplies are due on April 1<sup>st</sup> to assist Metropolitan staff in determining the need for an allocation in the coming allocation year.

## **Appendix A: Metropolitan Member Agencies**

Table 4: Member Agencies		
City of Anaheim	City of Glendale	City of San Marino
City of Beverly Hills	Inland Empire Utilities Agency	City of Santa Ana
City of Burbank	Las Virgenes MWD	City of Santa Monica
Calleguas MWD	City of Long Beach	Three Valleys MWD
Central Basin MWD	City of Los Angeles	City of Torrance
City of Compton	MWD of Orange County	Upper San Gabriel MWD
Eastern MWD	City of Pasadena	West Basin MWD
Foothill MWD	San Diego CWA	Western MWD
City of Fullerton	City of San Fernando	

Source: <http://mwdh2o.com/WhoWeAre/Member-Agencies/>

## **Appendix B: Water Supply Allocation Plan Process Timeline**

### **July 2007**

- City of Long Beach Water Department staff briefing
- Member Agency Managers/Member Agency Workgroup meeting
- Northern Managers Group meeting
  - Foothill MWD, City of Pasadena, City of Long Beach, Calleguas MWD, City of Los Angeles, West Basin MWD, City of Burbank, Three Valleys MWD, City of Glendale, Upper San Gabriel MWD

### **August 2007**

- Central Basin MWD staff briefing
- Eastern MWD staff briefing
- San Diego CWA staff briefing
- Member Agency Managers/Member Agency Workgroup meeting
- Western MWD staff briefing
- City of Beverly Hills staff briefing

### **September 2007**

- Member Agency Subgroup meetings
  - MWD of Orange County, San Diego CWA, West Basin MWD, Central Basin MWD
- MWD of Orange County staff briefing
- Member Agency Workgroup meeting
- Member Agency Workgroup meeting
- MWD Board of Directors Oral Report

### **October 2007**

- Inland Empire Utilities Agency staff briefing
- Central Basin MWD Caucus Meeting (included sub-agencies)
- Three Valleys MWD staff briefing
- MWD of Orange County staff briefing
- West Basin MWD staff briefing
- MWD Board of Directors Oral Report

### **November 2007**

- West Basin MWD Caucus Meeting (included sub-agencies)
- West Basin Water Users Association presentation
- Walnut Valley MWD staff briefing (sub-agency of Three Valleys MWD)
- Foothill MWD Managers Meeting (included sub-agencies)
- Central Basin MWD staff briefing
- City of Claremont City Council (sub-agency of Three Valleys MWD)
- MWD Board of Directors Information Letter with Draft Proposal

### **December 2007**

- Northern Managers Group Meeting
- California Department of Public Health staff briefing
- City of Long Beach Water Department staff briefing
- Santa Ana River Watershed Project Authority presentation
- Foothill MWD Managers Meeting (included sub-agencies)
- MWD Board of Directors Oral Report

### **January 2008**

- Northern Managers Group Meeting
- Water Replenishment District Board of Directors presentation
- Three Valleys MWD staff briefing
- Member Agency Conservation Coordinator's Group presentation
- Member Agency Managers/Member Agency Workgroup meeting
- City of Chino Hills presentation (sub-agency of IEUA)
- Member Agency Workgroup meeting
- Hemet/San Jacinto Exchange Club presentation
- MWD Board of Directors Report with Staff Recommended Water Supply Allocation Plan

### **February 2008**

- MWD of Orange County and Irvine Ranch WD staff briefing
- MWD Board of Directors Action Item
- San Gabriel Valley Water Association Meeting
- Orange County Water Policy Meeting
- SCAG Water Policy Task Force Meeting



## **Appendix C: 12-Month Review Process and Results**

### **January 2010**

- WSAP 12-Month Review Process workshop #1
  - Focused discussion of WSAP issues identified by Metropolitan staff and by member agencies since the July 2009 implementation began.

### **February 2010**

- WSAP 12-Month Review Process workshop #2
  - Continuation of focused discussion
- WSAP 12-Month Review Process workshop #3
  - Continuation of focused discussion

### **March 2010**

- WSAP 12-Month Review Process workshop #4
  - Continuation of focused discussion
- MWD Board of Directors information item
  - Review of potential modifications to the WSAP definition of Extraordinary Supply

### **April 2010**

- WSAP 12-Month Review Process workshop #5
  - Recap of identified issues and discussion of Metropolitan staff proposals for adjustments to the WSAP
- Member Agency Managers Meeting
  - Update on the 12-Month Review Process
- WSAP 12-Month Review Process workshop #6
  - Discussion of WSAP issues related to groundwater replenishment
- Member Agency Managers conference call
  - Clarification of WSAP definition for Extraordinary Supply

### **May 2010**

- Member Agency Managers Meeting
  - Discussion of proposed Extraordinary Supply policy principles and WSAP Local Supply certification process.
- Member Agency Managers conference call
  - Discussion of proposed Extraordinary Supply policy principles

### **June 2010**

- MWD Board of Directors action item

### **July 2010**

- MWD Board of Directors information item
  - Review of proposed adjustments to the WSAP developed in the 12-Month Review Process

### **August 2010**

- MWD Board of Directors action item

## Resulting Changes

- Removed references to Gains and Losses of Local Supply
  - Removed references in the WSAP to “gains and losses of local supplies” in order to better facilitate the accounting of historical base year and allocation year local supplies. This change did not affect the WSAP formula or allocations.
- Removed references to the Regional Shortage Percentage
  - Removed references to the “Regional Shortage Percentage” in the WSAP to reduce unintended confusion between calculation factors and shortage amounts. This change did not affect the WSAP formula or allocations.
- Included the Retail Impact Adjustment in all shortage levels
  - Included the Retail Impact Adjustment for Regional Shortage Levels 1 and 2. This change results in additional allocations to Metropolitan-dependent agencies under Level 1 and Level 2 regional shortages.
- Revised the accounting of Extraordinary Supplies
  - Revised the methodology for accounting of Extraordinary Supply in the WSAP formula by:
    - Removing the Base Period Local Supply threshold provision,
    - Removing the sliding-scale sharing mechanism from the formula, and
    - Including the full amount of the Extraordinary Supply in the calculation of the Retail Impact Adjustment.
- Included a Minimum Per Capita Water Use Threshold
  - Developed a minimum water use credit based on two GPCD water use thresholds. Member agencies would receive additional Metropolitan allocation for an acre-foot equivalent of GPCD below the minimum threshold. Member agency water use, on a gallon per capita per day (GPCD) basis, is compared to the following minimum thresholds established under Senate Bill X7-7 (Water Conservation Act of 2009)
    - 100 GPCD total use or
    - 55 GPCD residential indoor use
- Excluded Seawater Barrier from the WSAP Formula
  - Excluded seawater barrier supplies from the WSAP Base Period and Allocation Year local supply calculations. This allows the Board to determine allocations for seawater barrier demands separately from the WSAP.

## **Appendix D: Three-Year Review Process and Results**

### **February 2011**

- WSAP 3-Year Review Process workshop #1
  - Review of the existing WSAP policy formula; review of the process timeline; and focused discussion of WSAP issues identified by Metropolitan staff and by member agencies since the WSAP's adoption in February 2008

### **March 2011**

- WSAP 3-Year Review Process workshop #2
  - Discussion of issues related to local supplies and baseline inflation due to adjustments for recycling in the WSAP formula
- WSAP 3-Year Review Process workshop #3
  - Continuation of prior workshop

### **April 2011**

- WSAP 3-Year Review Process workshop #4
  - Discussion of issues and alternatives related to base period selection and baseline inflation in the WSAP formula
- WSAP 3-Year Review Process workshop #5
  - Discussion of recommendations to address baseline inflation in the WSAP formula

### **May 2011**

- WSAP 3-Year Review Process workshop #6
  - Discussion of issues and alternatives for the growth adjustment methodology in the WSAP formula
- WSAP 3-Year Review Process workshop #7
  - Continuation of prior workshop

### **June 2011**

- WSAP 3-Year Review Process workshop #8
  - Continuation of prior workshop, discussion of WSAP implementation exit strategy
- WSAP 3-Year Review Process workshop #9
  - Continuation of exit strategy discussion, discussion of baseline inflation due to conservation and related conservation demand hardening issues

### **July 2011**

- WSAP 3-Year Review Process workshop #9
  - Continued discussion of baseline inflation and conservation issues, and discussion of sharing allocations between agencies with common local resources

### **August 2011**

- WSAP 3-Year Review Process workshop #10
  - Discussion of WSAP Allocation Year timing vs. Tier 1-Tier 2 rate cycle timing, discussion of approaches for encouraging completion of WSAP local supply certifications
- Review WSAP at Member Agency Managers Meeting
  - Discussion of proposed WSAP adjustments to address baseline inflation issues, revise the growth adjustment methodology, and establish a WSAP exit strategy

## September 2011

- MWD Board of Directors action item

## Resulting Changes

- Baseline Inflation Adjustment
  - Removed non-potable recycling and conservation from the WSAP baseline
    - Increases in recycling and conservation will be subtracted annually from the Base Period forward
    - The annual population growth rate will be applied after deducting the annual increases in recycling and conservation
    - If an agency ends up in allocation penalty, a penalty reduction will be applied in an amount equal to the Code-Based and rate Structure conservation savings that were removed from the WSAP baseline
- Changed the Growth Adjustment methodology
  - Growth will be allocated at historical per capita rate capped at the 2010 Integrated Water Resource Plan (IRP) Target for Water Use Efficiency
    - For years up to and including 2014, the cap will be 163 GPCD
    - For years 2015-2020, the cap will reduce linearly from 163 to 145 GPCD
  - If an agency exceeds its allocation, a penalty reduction will be applied based on either:
    - The differential Evapotranspiration (ETo) of its service area compared to the MWD average, or
    - Certified and documented 20 x 2020 targeted GPCD
- Exit Strategy
  - Clarified the course of action for an existing WSAP allocation when Metropolitan's Board makes a declaration decision for the following WSAP year
    - If there is an allocation for the next year, then the current allocation stays in place
    - If there is no allocation for the next year, then the current allocation is lifted concurrent with the April decision

## **Appendix E: 2014 Review Process and Results**

### **July 2014**

- WSAP Workgroup Meeting #1
  - First meeting of the 2014 WSAP Review process; review of the existing WSAP policy and formula; review of the process timeline; began discussion of issues related to base period selection
- WSAP Workgroup Meeting #2
  - Discussion of base period selection

### **August 2014**

- WSAP Workgroup Meeting #3
  - Continuation of prior workshop discussion; comparison of base period alternatives

### **September 2014**

- WSAP Workgroup Meeting #4
  - Discussion of a base period proposal; discussion of replenishment issues in the WSAP; discussion of 2015 water supply scenarios
- Review WSAP at Member Agency Managers Meeting
  - Review of WSAP workgroup process; discussion on issues related to base period, demand hardening, and local resources development
- WSAP Workgroup Meeting #5
  - Review of base period recommendation; discussion of issues regarding agencies in mandatory conservation during a base period; discussion on replenishment in the WSAP

### **October 2014**

- WSAP Workgroup Meeting #6
  - Continuation of prior workshop discussion; discussion of alternative methods for conservation demand hardening credit; discussion of new and existing local supplies
- Review WSAP at Member Agency Managers Meeting
  - Review of WSAP workgroup process; discussion of issues related to base period and demand hardening

### **November 2014**

- WSAP Workgroup Meeting #7
  - Review and discussion of issues and potential methods for base period selection and adjustment, replenishment allocation, and conservation demand hardening credit; review of estimated effects of potential WSAP changes at the regional level
- WSAP Workgroup Meeting #8
  - Review of proposed recommendations for the WSAP based on workgroup discussion
- Review WSAP at Member Agency Managers Meeting
  - Review of proposed recommendations for the WSAP based on workgroup discussion

## Resulting Changes

- Base Period Update to FY2013 and FY2014
  - Changed the WSAP Base Period from calendar years 2004-2006 to fiscal years ending July 2013 and 2014
  - Mandatory Conservation Adjustment
    - Agencies with mandatory conservation in effect during the base period (FY 2013 and/or FY 2014) may qualify for a demand hardening adjustment, adjustment is subject to a consultation process that includes consideration historical demand and GPCD information
- Modify Conservation Demand Hardening Credit
  - Replaced device calculation-based estimates of conservation savings with a GPCD-based method
    - Conservation savings are calculated by comparing GPCD from a historical baseline to the Allocation Year; the difference is converted to acre-feet using the Allocation Year population.
      - Baseline GCPD is 10-year average ending between 2004 and 2010, with gross water, using gross water use minus non-potable recycled water production and documented historical population
  - Replaced formula for calculating the credit for each Regional Shortage Level
  - Conservation Demand hardening credit will be based on an initial 10 percent of GPCD-based conservation savings plus an additional 5 percent for each level of Regional Shortage; the credit will also be adjusted for the overall percentage reduction in retail water demand and the member agency's dependence on Metropolitan.
- Allocation Surcharge
  - Replaced the WSAP Penalty Rate with an Allocation Surcharge based on the estimated cost of Turf Replacement conservation programs



## **Appendix F: Summary of Historical Shortage Plans**

These five elements incorporated into the WSAP have, in four out of five instances, been used in previous shortage plans. Both the IICP and the 1995 DMP used a historical base period calculation, adjusted for growth, made local supply adjustments, and used conservation hardening credits in their formulations. The retail impact adjustment is the only feature of the WSAP that has not been used historically.

Table 5: Historical Shortage Plan Overview			
Plan Element	1991 IICP	1995 DMP	WSAP
Historical Base Period	✓	✓	✓
Growth Adjustment	✓	✓	✓
Local Supply Adjustment	✓	✓	✓
Conservation Hardening Credit	✓	✓	✓
Retail Impact Adjustment			✓

## Appendix G: Water Supply Allocation Formula Example

The following example gives a step-by-step description of how the formula would be used to calculate an allocation of Metropolitan supplies for a hypothetical member agency. All numbers are hypothetical for the purpose of the example and do not reflect any specific member agency.

### Step 1: Calculate Base Period Retail Demand

**Base Period Local Supplies:** Calculated using a two-year average of groundwater (gw), groundwater recovery (gwr), Los Angeles Aqueduct supply (laa), surface water (sw), seawater desalination (sd), and other non-Metropolitan imported supplies (os). For the purpose of this example, assume that the two year average is 59,000 af.

$$[(gw1+gwr1+laa1+sw1+sd1+os1) + (gw2+gwr2+laa2+sw2+sd2+os2)] \div 2 = 59,000 \text{ af}$$

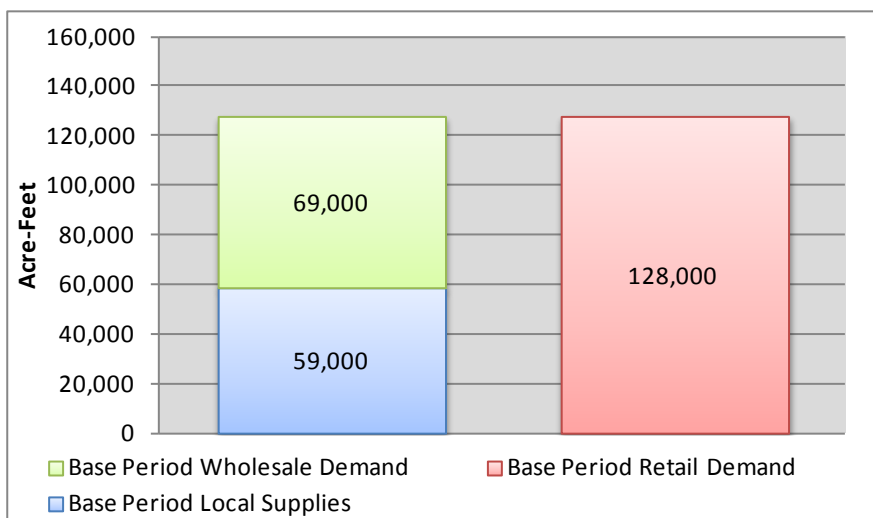
**Base Period Wholesale Demands:** Calculated using the same two-year time period as the Base Period Local Supplies. The Base Period Wholesale Demands include firm purchases (fp) and in-lieu deliveries to long-term groundwater replenishment (il), conjunctive use (cup), cyclic (cyc), and supplemental storage programs (ss). For the purpose of this example, assume that the two year average is 69,000 af.

$$[(fp^1+il^1+cup^1+cyc^1+ss^1) + (fp^2+il^2+cup^2+cyc^2+ss^2)] \div 2 = 69,000 \text{ af}$$

**Base Period Retail Demands:** Calculated as the sum of the Base Period Local Supplies and Base Period Wholesale Demand.

$$59,000 + 69,000 = 128,000 \text{ af}$$

Figure 1: Base Period Retail Demand Calculation



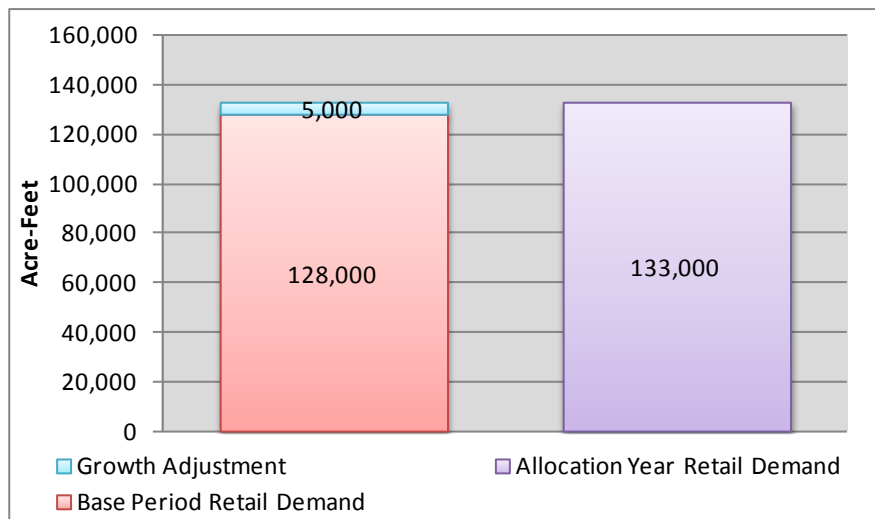
**Calculate Adjustment for Base Period Mandatory Rationing (if applicable):** The hypothetical agency used in this example is assumed not to qualify for the Base Period Mandatory Rationing Adjustment. A detailed discussion of the adjustment methodology can be found in [Appendix I: Base Period Rationing Adjustment Example](#).

## Step 2: Calculate Allocation Year Retail Demand

**Allocation Year Retail Demand:** Calculated by adjusting the Base Period Retail Demand for any baseline inflation and growth that occurred since the Base Period.

$$128,000 \text{ af} + 5,000 \text{ af (net adjustment to retail demand)} = 133,000 \text{ af}$$

**Figure 2: Allocation Year Retail Demand Calculation**



## Step 3: Calculate Allocation Year Wholesale Demand

**Allocation Year Local Supplies:** Estimates of Allocation Year Local Supplies are provided by the member agencies upon implementation of a WSAP. If estimates are not provided, Metropolitan will use the sum of the Base Period Local Supplies and Base Period In-Lieu Deliveries as a default. Agencies may provide updated estimates at any time during the Allocation Year to more accurately reflect their demand for Metropolitan supplies. For this example assume that the Allocation Year Local Supplies total 65,000 acre-feet.

$$\text{Allocation Year Local Supplies} = 65,000 \text{ af}$$

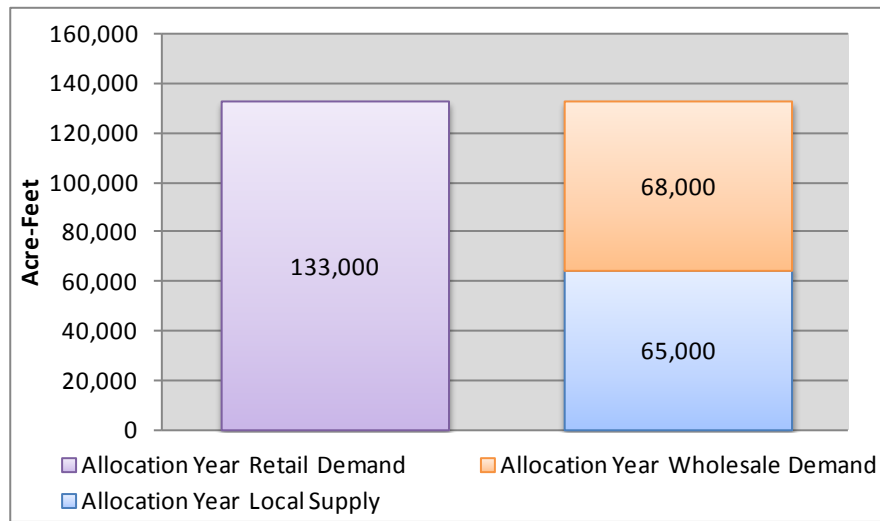
For this example assume also that this agency has an additional 5,000 acre-feet of supplies that meet the determinations for Extraordinary Supply. These supplies are withheld from the allocation formula except for in calculating the Retail Impact Adjustment Allocation.

$$\text{Extraordinary Local Supplies} = 5,000 \text{ af}$$

**Allocation Year Wholesale Demands:** Calculated by subtracting the Allocation Year Local Supplies (65,000 af) from the Allocation Year Retail Demands (133,000 af).

$$133,000 \text{ af} - 65,000 \text{ af} = 68,000 \text{ af}$$

**Figure 3: Allocation Year Wholesale Demand Calculation**



#### Step 4: Calculate the Wholesale Minimum Allocation

**Wholesale Minimum Percentage:** Calculate from Table 1 for Regional Shortage Level 4.

Table 1: Shortage Allocation Index		
(a) Regional Shortage Level	(b) Wholesale Minimum Percentage	(c) Maximum Retail Impact Adjustment Percentage
4	70.0%	10.0%

**Wholesale Minimum Allocation:** Calculated by multiplying the agency's Allocation Year Wholesale Demand (68,000 af) by the Wholesale Minimum Percentage (70%) from the Table 1 for Regional Shortage Level 4.

$$68,000 \text{ af} * 70\% = 47,600 \text{ af}$$

#### Step 5: Calculate the Retail Impact Adjustment Allocation

**Maximum Retail Impact Adjustment Percentage:** Calculate from Table 1 for Regional Shortage Level 4.

**Retail Impact Adjustment Allocation:** Calculated first by determining the agency's dependence on Metropolitan by dividing the Allocation Year Wholesale Demand (68,000 af) minus the Extraordinary Supply (5,000 af) by the Allocation Year Retail Demand (133,000 af) and multiplying by 100.

$$[(68,000 \text{ af} - 5,000 \text{ af}) / 133,000 \text{ af}] * 100 = 47\%$$

Next, this percentage dependence on Metropolitan (47%) is multiplied by the Maximum Retail Impact Percentage for Shortage Level 4 (10%).

$$47\% * 10\% = 4.7\%$$

This percentage is now multiplied by the Allocation Year Wholesale Demand (68,000 af) for the Retail Impact Adjustment Allocation.

$$68,000 \text{ af} * 4.7\% = 3,221 \text{ af}$$

#### **Step 7: Calculate the Conservation Demand Hardening Adjustment**

**Calculate Baseline GPCD:** To estimate conservation savings, each member agency will establish a historical baseline GPCD calculated in a manner consistent with California Senate Bill SBx7-7, using a 10 or 15-year average ending between 2004 and 2010, using gross water use minus non-potable recycle water production and documented historical population. For this example assume that the Baseline GPCD is 154 GPCD

$$\text{Baseline GPCD} = 154 \text{ GPCD}$$

**Calculate Allocation Year GPCD:** Next, calculate the allocation year GPCD by converting the Allocation Year Retail Demand to GPCD and dividing by the Allocation Year Population from the WSAP. For this example the Allocation Year Retail Demand is 133,000 AF (see Step 2 above) and assume the Allocation Year Population is 905,000 persons. The resulting GPCD is 131 GPCD.

$$\text{Allocation Year GPCD} = 133,000 \text{ af/year} * 325,851 \text{ gallons/af} \div 365 \text{ days/year} \div 905,000 \text{ persons} = 131 \text{ GPCD}$$

**Calculate Reduction in GPCD:** Subtract Allocation Year GPCD from Baseline GPCD to determine the GPCD Reduction.

$$\text{GPCD Reduction} = 154 \text{ GPCD} - 131 \text{ GPCD} = 23 \text{ GPCD}$$

**Calculate Conservation Savings:** Convert the GPCD Reduction to the equivalent annual conservation savings in acre-feet, using the Allocation Year Population.

$$\text{Conservation Savings} = \frac{((\text{GPCD Reduction}) \times 365 \text{ days/yr} \times \text{Population})}{325,851 \text{ gallons/af}}$$

$$\text{Conservation Savings} = 23 \times 365 \times 905,000 \div 325,851 = 23,316 \text{ af}$$

**Multiply by Regional Shortage Level Percentage:** Multiply the Conservation Savings by 10 percent plus an additional 5 percent for each level of Regional Shortage (see Step 4 above). This example assumes a Regional Shortage Level of 4. This scales the hardening credit by the level of regional shortage, thereby increasing the credit as deeper shortages occur when demand hardening has a larger impact on the retail consumer.

$$23,316 \text{ af} \times (10\% + (4 \times 5\%)) = 6,995 \text{ af}$$

**Multiply by Conservation Savings Percentage:** Next, multiply by the percentage of an agency's demand that was reduced through conservation. This scales the hardening by the total percentage reduction to recognize that increased hardening occurs as increasing amounts of conservation are implemented.

$$\text{Conservation Savings Percentage} = 1 + ((\text{Baseline GPCD} - \text{Allocation Year GPCD}) / \text{Baseline GPCD})$$

$$\text{Conservation Savings Percentage} = 1 + ((154 \text{ GPCD} - 131 \text{ GPCD}) / 154 \text{ GPCD}) = 115\%$$

$$6,995 \text{ af} \times 115\% = 8,044 \text{ af}$$

**Multiply by Dependence on MWD:** Next, multiply by the agency's percentage dependence on MWD as shown in Step 5 above. This scales the credit to the member agency's dependence on MWD to ensure that credits are being applied to the proportion of water demand that is being affected by reductions in MWD's supply. For this example, dependence on MWD is 47%.

$$8,044 \text{ af} \times 47\% = 3,781 \text{ af}$$

**Summary:** The Conservation Demand Hardening Adjustment calculation is summarized by the following formula:

$$\text{Conservation Demand Hardening Adjustment} = \text{Conservation Savings} \times (10\% + \text{Regional Shortage Level \%}) \times (1 + \text{Conservation\%}) \times \text{Dependence on MWD \%}$$

$$\begin{aligned} \text{Conservation Demand Hardening Adjustment} &= 23,316 \text{ af} \times (10\% + (4 \times 5\%)) \times (115\%) \times (47\%) \\ &= 3,781 \text{ af} \end{aligned}$$

**Step 8: Calculate the Low Per-Capita Adjustment Allocation:** The hypothetical agency used in this example is assumed not to qualify for the Low Per-Capita Adjustment. A detailed discussion and example of the Low Per-Capita Adjustment calculation can be found in [Appendix J: Per Capita Water Use Minimum Example](#).

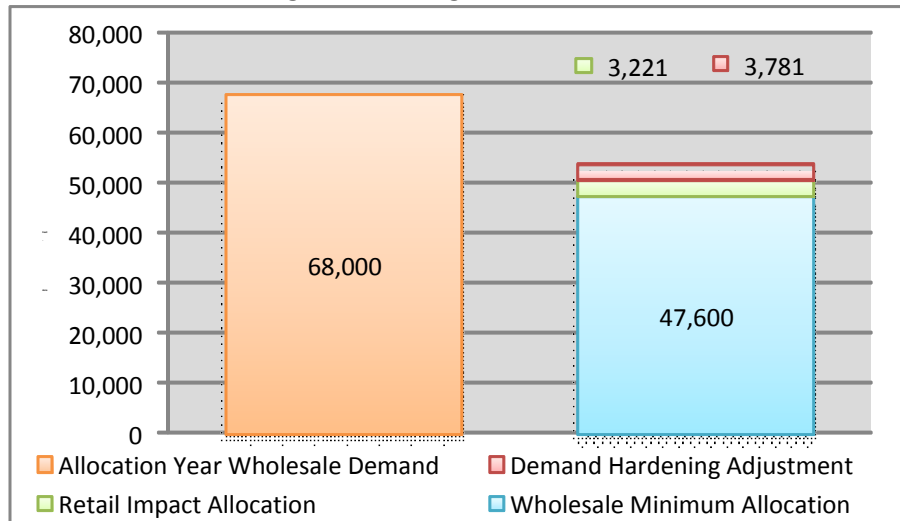
#### **Step 9: Calculate the total WSAP Allocation**

**WSAP Allocation:** Calculated by adding the Wholesale Minimum Allocation (47,600 af), the Maximum Retail Impact Adjustment (3,221 af), the Demand Hardening Adjustment (3,781 af), and the Low Per-Capita Adjustment (0 af).

$$47,600 \text{ af} + 3,221 \text{ af} + 3,781 \text{ af} + 0 \text{ af} = 54,602 \text{ af}$$



**Figure 4: WSAP Allocation Regional Shortage Level 4**



### Step 10: Calculate total retail level reliability

**Retail level reliability:** Calculated by adding the WSAP Allocation (54,602 af), the Allocation Year Local Supply (65,000 af) and the Extraordinary Local Supply (5,000 af) and dividing by the Allocation Year Retail Demand (133,000 af).

$$(54,602 \text{ af} + 65,000 \text{ af} + 5,000 \text{ af}) \div 133,000 \text{ af} = 93.7\%$$

**Total Metropolitan Supply Allocations:** In addition to the WSAP Allocation described above, agencies may also receive separate allocations of supplies for groundwater replenishment and seawater barrier demands. More information on the groundwater replenishment allocation is located in [Appendix L: Groundwater Replenishment Allocation](#).

## **Appendix H: Board Policy Principles on Determining the Status of Extraordinary Supply**

At the June 8, 2010 Water Planning and Stewardship Committee meeting Metropolitan's Board of Directors adopted the following policy principles to guide staff in determining the Extraordinary Supply status of future member agency supply programs.

### **No Negative Impacts to Other Member Agencies**

A potential Extraordinary Supply for a member agency should not decrease the amount of Metropolitan water supply that would be available to the other member agencies in a WSAP. Programs that utilize Metropolitan supplies as a primary or in-lieu source or as a means of payback or future replenishment may have the effect of decreasing supplies, available to other agencies, if designated as Extraordinary Supply.

### **Provides Supply in Addition to Existing Regional Supplies**

A potential Extraordinary Supply should provide a water supply that increases the overall water supplies that are available to the region in a WSAP. A program that is designed to move existing regional supplies from year to year would not qualify.

### **Specifically Designed Program or Supply Action**

A potential Extraordinary Supply must be intentionally created and operated to provide additional supply yield. Normal variations in existing and planned local supply programs would not qualify.

### **Intended for Consumptive Use in a WSAP**

A potential Extraordinary Supply should be designed with the primary intention to deliver water supply to a member agency only at a time when Metropolitan is allocating supplies. Programs designed to deliver water on a regular basis would not qualify. Exceptions for reasonable use of a supply program for emergency or other extenuating local circumstances should be considered.

### **Fully Documented Resource Management Actions**

A potential Extraordinary Supply should have a full description as to the source, transmission, distribution, storage, and delivery of the water supply.

These principles are intended to identify deliberate actions taken by member agencies to augment supplies only when Metropolitan is allocating supplies through the WSAP. Production from existing local supplies, programs that are operated on an ongoing basis, and incidental increases in water supply would not qualify as Extraordinary Supply. The intent of the Extraordinary Supply designation is to recognize programs and actions that are additive to the total regional water supply as the region continues to confront the water supply challenges from drought and regulatory conditions. To that end, any supply actions taken after the initial implementation of the WSAP in July 2009 that utilize Metropolitan supplies either as a primary source, or to refill or replenish an incurred obligation or deficit at a future date would not qualify as Extraordinary Supply.

## **Appendix I: Base Period Mandatory Rationing Adjustment**

Agencies that were under mandatory water use restrictions during the Base Period may have water use that is lower due to the mandatory actions already taken. Without adjusting for this, those agencies could be required to enforce even higher levels of restrictions under an allocation than those agencies that had not started mandatory restrictions.

To qualify for a Base Period Mandatory Rationing Adjustment, the member agency must provide Metropolitan staff with the following information:

- Time period when the mandatory conservation was in effect; it must be in effect during the Base Period
- A statement, with documentation, of how drought restrictions comply with the following Mandatory Conservation qualifications:
  - Governing Body-authorized or enacted
  - Includes mandatory demand reduction actions, restrictions or usage limitations including penalty-backed water budgets
  - Enforced by assessing penalties, fines, or rates based upon violating restrictions or exceeding usage limitations
- If the agency in question is a retail subagency, then the retailer's base period water demands during the Base Period in order to determine proportion to the member agency's total demand
- Historical data to construct GPCD base and trend for the consultation

Calculating the Base Period Rationing Adjustment involves following steps:

- Use the Baseline GPCD 10 or 15-year period selected by member agency for the Conservation Demand Hardening Adjustment calculation.
- Interpolate from the GPCD value of the midpoint of the Baseline GPCD period to the average GPCD of the two years preceding the agency's mandatory conservation
- Extrapolate to the WSAP Base Period (FY2013 and FY2014)
- Calculate the difference between estimated and observed GPCD for FY2013 and FY2014
- Convert to Acre-Feet and add to the member agency's Base Period Retail Demands

## **Appendix J: Per-Capita Water Use Minimum Example**

This adjustment creates a minimum per capita water use threshold. Member agencies' retail-level water use under the WSAP is compared to two different thresholds. The minimum water use levels are based on compliance guidelines for total and residential water use established under Senate Bill X7-7.

**Total Retail Level Use:** 100 GPCD

**Residential Retail Level Use:** 55 GPCD

Agencies that fall below either threshold under the WSAP would receive additional allocation from Metropolitan to bring them up to the minimum GPCD water use level. To qualify for this credit, member agencies must provide documentation of the total agency level population and the percent of retail level demands that are residential; no appeal is necessary.

The following example gives a step-by-step description of how the Low Per-Capita Water Use Adjustment would be calculated for a hypothetical member agency. All numbers are hypothetical for the purpose of the example and do not reflect any specific member agency. This example was calculated using the following assumptions:

**Allocation Year Retail Demand:** 50,000 acre-feet

**Allocation Year Local Supplies:** 25,000 acre-feet;

**Allocation Year Wholesale Demand:** 25,000 acre-feet

**Base Period Conservation:** 5,000 acre-feet

**Agency Population:** 375,000

**Percent of Retail Demands that are Residential:** 60%

### **Step 1: Calculate Total Retail-Level Allocation Year Supplies**

Table 6 shows the Allocation Year Local Supply, WSAP Allocation, and the total Allocation Year Supplies for the example agency at each Regional Shortage Level. The WSAP Allocation was calculated using the methodology detailed in [Appendix G: Water Supply Allocation Formula Example](#) and the assumptions listed above.

Table 6: Total Retail Level Allocation Year Supplies			
Regional Shortage Level	Allocation Year Local Supply	WSAP Allocation	Total Allocation Year Supply
1	25,000	23,594	48,594
2	25,000	22,188	47,188
3	25,000	20,781	45,781
4	25,000	19,375	44,375
5	25,000	17,969	42,969
6	25,000	16,563	41,563
7	25,000	15,156	40,156
8	25,000	13,750	38,750
9	25,000	12,344	37,344
10	25,000	10,938	35,938

### Step 2: Calculate the Equivalent Total and Residential GPCD

The next step is to calculate the equivalent water use in gallons per capita per day (GPCD) for the Total Allocation Year Supply. The following equation shows the GPCD calculation under Regional Shortage Level 10.

$$35,938 \text{ af} * 325,851 \text{ gallons} \div 375,000 \text{ people} \div 365 \text{ days} = 85.6 \text{ GPCD}$$

The residential per-capita water use is calculated in the same manner. Based on the assumption that 60% of the agency demands are residential, the following equation shows the residential GPCD calculation under Regional Shortage Level 10.

$$35,938 \text{ af} * 60\% * 325,851 \text{ gallons} \div 375,000 \text{ people} \div 365 \text{ days} = 51.3 \text{ GPCD}$$

### Step 3: Compare the Total and Residential GPCD to the Minimum Water Use Thresholds

The next step is to compare the total GPCD water use to the 100 GPCD total water use threshold. In a Regional Shortage Level 10, the WSAP results in an allocation that is 14.4 GPCD below the minimum threshold.

$$100 \text{ GPCD} - 85.6 \text{ GPCD} = 14.4 \text{ GPCD}$$

Likewise the residential GPCD water use is compared to the 55 GPCD residential water use threshold.

$$55 \text{ GPCD} - 51.3 \text{ GPCD} = 3.7 \text{ GPCD}$$

### Step 4: Determine the Allocation Adjustment in Acre-Feet

The final step is to calculate the acre-foot equivalent of the GPCD that fell below the minimum threshold. In a Regional Shortage Level 10, the adjustment provides 6,068 acre-feet of additional allocation to the agency; the results for Shortage Levels 1-10 are shown in Table 7.

$$14.4 \text{ GPCD} \div 325,851 \text{ gallons} * 375,000 \text{ people} * 365 \text{ days} = 6,068 \text{ acre-feet}$$

Table 7: Total Per-Capita Water Use Adjustment				
Regional Shortage Level	Allocation Year Supply	Equivalent GPCD	GPCD Below Threshold	Allocation Adjustment
1	48,594	115.7	0	0
2	47,188	112.3	0	0
3	45,781	109.0	0	0
4	44,375	105.6	0	0
5	42,969	102.3	0	0
6	41,563	98.9	1.1	443
7	40,156	95.6	4.4	1,849
8	38,750	92.3	7.7	3,255
9	37,344	88.9	11.1	4,662
10	35,938	85.6	14.4	6,068

Again, this step is repeated for the residential water use. In a Regional Shortage Level 10, the adjustment provides 1,540 acre-feet of additional allocation to the agency; the residential water use results for Regional Shortage Levels 1-10 are shown in Table 8.

$$3.7 \text{ GPCD} \div 325,851 \text{ gallons} * 375,000 \text{ people} * 365 \text{ days} = 1,540 \text{ acre-feet}$$

Table 8: Residential Per-Capita Water Use Adjustment				
Regional Shortage Level	Allocation Year Supply	Equivalent GPCD	GPCD Below Threshold	Allocation Adjustment
1	29,156	69.4	0	0
2	28,313	67.4	0	0
3	27,469	65.4	0	0
4	26,625	63.4	0	0
5	25,781	61.4	0	0
6	24,938	59.4	0	0
7	24,094	57.4	0	0
8	23,250	55.4	0	0
9	22,406	53.3	1.7	697
10	21,563	51.3	3.7	1,540

Agencies that fall below either threshold under the WSAP would receive additional allocation from Metropolitan to bring them up to the minimum GPCD water use level. If an agency qualifies under both thresholds, the one resulting in the maximum allocation adjustment would be given. Under this example the agency would receive 6,068 acre-feet of additional allocation in a Regional Shortage Level 10.



## Appendix K: Qualifying Income-Based Rate Allocation Surcharge Adjustment Example

The following example provides a step by step description of how the qualifying income-based rate allocation surcharge adjustment is calculated. To qualify for this adjustment, member agencies must provide documentation showing the amount of retail demands that are covered by a qualifying income-based rate; no appeal is necessary.

The following list summarizes the allocation year demands, local supplies, and allocation as calculated in [Appendix G: Water Supply Allocation Formula Example](#) for a hypothetical agency under a Level 4 Regional Shortage. For detailed instructions on how to calculate these figures, reference [Appendix G: Water Supply Allocation Formula Example](#).

**Allocation Year Retail Demand:** 133,000 acre-feet

**Allocation Year Local Supplies:** 68,000 acre-feet;

**Level 4 WSAP Allocation:** 52,735 acre-feet

### Step 1: Allocation Surcharge Calculation

- (a) **Water Use above Allocation:** The first step in calculating the income-based rate Allocation Surcharge adjustment is to calculate the agency's total Allocation Surcharge under the WSAP. If the agency did not incur any Allocation Surcharge from the allocation year, the income-based rate allocation surcharge adjustment would not apply. For the purpose of this example, the agency used 61,000 acre-feet of MWD supplies in the allocation year. This represents 8,265 acre-feet of use above the water supply allocation.

WSAP Allocation	52,735 af
Actual MWD Water Use	61,000 af
<b>Use Above WSAP Allocation</b>	<b>8,265 af</b>

- (b) **Total Allocation Surcharge:** In this example the agency used 115.7% of its water supply allocation. 7,910 of the 8,265 acre-feet of use above the allocation would be assessed the Allocation Surcharge at an amount of \$1,480 per acre-foot and 354 of the 8,265 acre-feet of use above the allocation would be assessed the Allocation Surcharge at an amount of \$2,960.

Between 100% and 115% of Allocation	7,910 af	\$1,480/af	\$11,706,800
Greater than 115% of Allocation	354 af	\$2,960/af	\$1,047,840
<b>Total</b>	<b>8,265 af</b>		<b>\$12,754,640</b>

### Step 2: Effective Income-Based Rate Cutback

- (a) **Calculate Retail Cutback:** The second step in calculating the income-based rate allocation surcharge adjustment is to calculate the amount of supply cutback that would have been expected from qualifying income-based rate customers under the WSAP. Using the water supply allocation that was calculated above, the total retail level impact on the agency can be

determined. In this example the agency receives a retail level cutback of 15,265 acre-feet, or 11.5% of their retail level demand.

WSAP Allocation + Allocation Year Local Supplies	117,735 af
Allocation Year Retail Demand	133,000 af
<b>Effective Cutback</b>	<b>15,265 af (11.5%)</b>

- (b) Income-based Rate Customer Retail Cutback:** To calculate the effective income-based rate cutback, the amount of demand covered by a qualifying income-based rate is multiplied by the effective retail level cutback. For this example assume that the agency has 10,000 acre-feet of qualifying demands.

Qualifying Income-Based Rate Demand	10,000 af
Effective Cutback Percentage	11.5%
<b>Effective Income-Based Rate Cutback</b>	<b>1,148 af</b>

- (c) Income-based Rate Cutback Allocation Surcharge:** Once the effective cutback has been calculated, the amount of Allocation Surcharge that is associated with qualifying income-based rate customers can be determined.

Between 100% and 115% of Allocation	794 af	\$1,480/af	\$1,175,120
Greater than 115% of Allocation	354 af	\$2,960/af	\$1,047,840
<b>Total</b>	<b>1,148 af</b>		<b>\$2,222,960</b>

- (d) Adjusted Allocation Surcharge Calculation:** Finally, the Allocation Surcharge attributable to qualifying income-based rate customers is subtracted from the total Allocation Surcharge that was calculated above to determine the qualifying income-based rate adjusted allocation surcharge. In the case that the monetary amounts associated with the Income-Based Rate are greater than the total amounts an agency incurs, no Allocation Surcharge will be incurred.

Total Allocation Surcharge	\$12,754,640
Qualifying Income-Based Rate Allocation Surcharge	\$2,222,960
<b>Qualifying Income-Based Rate Adjusted Allocation</b>	<b>\$10,531,680</b>

## **Appendix L: Groundwater Replenishment Allocation**

Groundwater basins help provide vital local supplies that can buffer the region from short-term drought impacts. Longer droughts can result in reductions to the many sources of water that replenish groundwater basins, resulting in lower basin levels and potential impacts to the overlying consumptive demands. Limited imported deliveries under these conditions may help avoid impacts to the basins that may be drawn out of their normal operating range or subject to water quality or regulatory impacts. To this end, Metropolitan provides a limited allocation for drought impacted groundwater basins based on the following framework:

- a) Staff hold a consultation with qualifying member agencies who have taken groundwater replenishment deliveries since 2010 and the appropriate groundwater basin managers to document whether their basins are in one of the following conditions:
  - i. Groundwater basin overdraft conditions that will result in water levels being outside normal operating ranges during the WSAP allocation period; or
  - ii. Violations of groundwater basin water quality and/or regulatory parameters that would occur without imported deliveries.
- b) Provide an allocation based on the verified need for groundwater replenishment. The allocation would start with a member agency's ten-year average purchases of imported groundwater replenishment supplies (excluding years in which deliveries were curtailed). The amount would then be reduced by the declared WSAP Regional Shortage Level (5 percent for each Regional Shortage Level).
- c) Any allocation provided under this provision for drought impacted groundwater basins is intended to help support and maintain groundwater production for consumptive use. As such, a member agency receiving an allocation under this provision will be expected to maintain groundwater production levels equivalent to the average pumping in the Base Period. Any adjustments to a member agency's M&I allocation due to lower groundwater production would be reduced by deliveries made under this provision.
- d) Agencies for which this allocation does not provide sufficient supplies for the needs of the groundwater basin may use the WSAP Appeals Process to request additional supply (subject to Board approval). The appeal should include a Groundwater Management Plan that documents the need for additional supplies according to the following tenets:
  - i. Maintenance of groundwater production levels;
  - ii. Maintenance of, or reducing the further decline of, groundwater levels;
  - iii. Maintenance of key water quality factors/indicators;
  - iv. Avoidance of permanent impacts to groundwater infrastructure or geologic features; and
  - v. Consideration of severe and/or inequitable financial impacts.

Final amounts and allocations will be determined following the consultations with groundwater basin managers and member agencies.

## Appendix M: Water Rates, Charges, and Definitions

Table 9: Water Rates and Charges Dollars per acre-foot (except where noted)			
Rate	Effective 1/1/2014	Effective 1/1/2015	Effective 1/1/2016
Tier 1 Supply Rate	\$148	\$158	\$156
Tier 2 Supply Rate	\$290	\$290	\$290
System Access Rate	\$243	\$257	\$259
Water Stewardship Rate	\$41	\$41	\$41
System Power Rate	161	\$126	\$138
Tier 1	\$593	\$582	\$594
Tier 2	\$735	\$714	\$728
Treatment Surcharge	\$297	\$341	\$348
Full Service Treated Volumetric Cost			
Tier 1	\$890	\$923	\$942
Tier 2	\$1,032	\$1,055	\$1,076
Readiness-to-Serve Charge (millions of dollars)	\$166	\$158	\$153
Capacity Charge (dollars per cubic foot second)	\$8,600	\$11,100	\$10,900

### Definitions:

- (1) **Tier 1 Supply Rate** - recovers the cost of maintaining a reliable amount of supply.
- (2) **Tier 2 Supply Rate** - set at Metropolitan's cost of developing additional supply to encourage efficient use of local resources.
- (3) **System Access Rate** – recovers a portion of the costs associated with the delivery of supplies.
- (4) **System Power Rate** – recovers Metropolitan's power costs for pumping supplies to Southern California.
- (5) **Water Stewardship Rate** – recovers the cost of Metropolitan's financial commitment to conservation, water recycling, groundwater clean-up and other local resource management programs.
- (6) **Treatment Surcharge** – recovers the costs of treating imported water.
- (7) **Readiness-to-Serve Charge** - a fixed charge that recovers the cost of the portion of system capacity that is on standby to provide emergency service and operational flexibility.
- (8) **Capacity Charge** – the capacity charge recovers the cost of providing peak capacity within the distribution system.

Source: <http://www.mwdh2o.com/WhoWeAre/Management/Financial-Information>

## **Appendix N: Allocation Appeals Process**

### **Step 1: Appeals Submittal**

All appeals shall be submitted to the Appeals Liaison in the form of a written letter signed by the member agency General Manager. Each appeal must be submitted as a separate request, submittals with more than one appeal will not be considered. The appeal request is to include:

- A designated member agency staff person to serve as point of contact.
- The type of appeal (erroneous baseline data, loss of local supply, etc.).
- The quantity (in acre-feet) of the appeal.
- A justification for the appeal which includes supporting documentation.

A minimum of 60 days are required to coordinate the appeals process with Metropolitan's Board process.

### **Step 2: Notification of Response and Start of Appeals Process**

The Appeals Liaison will phone the designated member agency staff contact within 3 business days of receiving the appeal to provide an initial receipt notification, and schedule an appeals conference. Subsequent to the phone call, the Liaison will send an e-mail to the Agency General Manager and designated staff contact documenting the conversation. An official notification letter confirming both receipt of the appeal submittal, and the date of the appeals conference, will be mailed within 2 business days following the phone contact

### **Step 3: Appeals Conference**

All practical efforts will be made to hold an appeals conference between Metropolitan staff and member agency staff at Metropolitan's Union Station Headquarters within 15 business days of receiving the appeal submittal. The appeals conference will serve as a forum to review the submittal materials and ensure that there is consensus understanding as to the spirit of the appeal. Metropolitan staff will provide an initial determination of the size of the appeal (small or large) and review the corresponding steps and timeline for completing the appeals process.

### ***Steps 4-7 of the appeals process differ depending upon the size of the appeal***

#### ***Small Appeals***

Small appeals are defined as those that would change an agency's allocation by less than 10 percent, or are less than 5,000 acre-feet in quantity. Small appeals are evaluated and approved or denied by Metropolitan staff.

### **Step 4: Preliminary Decision**

Metropolitan staff will provide a preliminary notice of decision to the member agency within 10 business days of the appeals conference. The preliminary decision timeline may be extended to accommodate requests for additional information, data, and documentation. The Appeals Liaison will mail a written letter to the member agency staff contact and General Manager, stating the preliminary decision and the rationale for approving or denying the appeal.

### **Step 5: Clarification Conference**

Following the preliminary decision the Appeals Liaison will schedule a clarification conference. The member agency may choose to decline the clarification conference if they are satisfied with the preliminary decision. Declining the clarification conference serves as acceptance of the preliminary decision, and the decision becomes final upon approval by Metropolitan's executive staff.

### **Step 6: Final Decision**

Metropolitan staff will provide a final notice of decision to the member agency within 10 business days of the clarification conference, pending review by Metropolitan's executive staff. The Appeals Liaison will mail a written letter to the member agency staff contact and General Manager, stating the final decision and the rationale for the decision. A copy of the letter will also be provided to Metropolitan executive staff.

#### **Step 6a: Board Resolution of Small Appeal Claims**

Member agencies may request to forward appeals that are denied by Metropolitan staff to the Board of Directors through the Water Planning and Stewardship Committee for final resolution. The request for Board resolution shall be submitted to the Appeals Liaison in the form of a written letter signed by the member agency General Manager. This request will be administered according to Steps 6 and 7 of the large appeals process.

### **Step 7: Board Notification**

Metropolitan staff will provide a report to the Board of Directors, through the Water Planning and Stewardship Committee, on all submitted appeals including the basis for determination of the outcome of the appeal.

### **Large Appeals**

Large appeals are defined as those that would change an agency's allocation by more than 10 percent, and are larger than 5,000 acre-feet. Large appeals are evaluated and approved or denied by the Board of Directors.

### **Step 4: Preliminary Recommendation**

Metropolitan staff will provide a preliminary notice of recommendation to the member agency within 10 business days of the appeals conference. The preliminary decision timeline may be extended to accommodate requests for additional information, data, and documentation. The Appeals Liaison will mail a written letter to the member agency staff contact and General Manager, stating the preliminary recommendation and the rationale for the recommendation. A copy of the draft recommendation will also be provided to Metropolitan executive staff.

### **Step 5: Clarification Conference**

Following the preliminary recommendation the Appeals Liaison will schedule a clarification conference. The member agency may choose to decline the clarification conference if the satisfied with preliminary recommendation. Declining the clarification conference signifies acceptance of the preliminary recommendation, and the recommendation becomes final upon approval by Metropolitan's executive staff.



**Step 6: Final recommendation**

Metropolitan staff will provide a final notice of recommendation to the member agency within 10 business days of the clarification conference, pending review by Metropolitan executive staff. The Appeals Liaison will mail a written letter to the member agency staff contact and General Manager, stating the final recommendation and the rationale for the recommendation. A copy of the final recommendation will also be provided for Metropolitan executive review.

**Step 7: Board Action**

Metropolitan staff shall refer the appeal to the Board of Directors through the Water Planning and Stewardship Committee for approval.

## **Appendix O: Appeals Submittal Checklist**

### **Appeal Submittal**

- ☐ Written letter (E-mail or other electronic formats will not be accepted)
- ☐ Signed by the Agency General Manager

### **Mailed to the appointed Metropolitan Appeals Liaison**

### **Contact Information**

- |   |  |
|---|--|
| <input type="checkbox"/> Designated staff contact | <input type="checkbox"/> General Manager |
| ○ Name  | ○ Name                                   |
| ○ Address   | ○ Address                                |
| ○ Phone Number                                    | ○ Phone Number                           |
| ○ E-mail Address                                  | ○ E-mail Address                         |

### **Type of Appeal**

- ☐ State the type of appeal
  - Erroneous historical data used in base period calculations
    - Metropolitan Deliveries
    - Local Production
    - Growth adjustment
    - Conservation savings
  - Exclusion of physically isolated areas
  - Extraordinary supply designation
  - Groundwater Replenishment Allocation
  - Base Period Mandatory Rationing Adjustment
  - Other

### **Quantity of Appeal**

- ☐ State the quantity in acre-feet of the appeal

### **Justification and Supporting Documentation**

- ☐ State the rationale for the appeal
- ☐ Provide verifiable documentation to support the stated rationale
  - Examples of verifiable documentation Include, but are not limited to:
    - Billing Statements
    - Invoices for conservation device installations
    - Basin Groundwater/Watermaster Reports
    - California Department of Finance economic or population data
    - California Department of Public Health reports



## **Attachment C**

### **Resolution Adopting the Water Shortage Contingency Plan**

#### **Resolution 9281**

#### **RESOLUTION OF THE BOARD OF DIRECTORS OF THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA ADOPTING THE WATER SHORTAGE CONTINGENCY PLAN**

WHEREAS, the Urban Water Management Planning Act requires urban water suppliers providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually to prepare and adopt, in accordance with prescribed requirements, a water shortage contingency plan;

WHEREAS, the Urban Water Management Planning Act specifies the requirements and procedures for adopting such Water Shortage Contingency Plans;

WHEREAS, the Urban Water Management Planning Act requires urban water suppliers to conduct an annual water supply and demand assessment (Annual Assessment) each year and to include in their water shortage contingency plans the procedures they use to conduct the Annual Assessment;

WHEREAS, the procedures used to conduct an Annual Assessment include, but are not limited to, the written decision-making process that an urban water supplier will use each year to determine its water supply reliability;


WHEREAS, The Metropolitan Water District of Southern California's (Metropolitan's) water shortage contingency plan provides that by June of each year, Metropolitan staff will present a completed Annual Assessment for approval by Metropolitan's Board of Directors or by the Board's authorized designee with expressly delegated authority for approval of Annual Assessment determinations;

and

WHEREAS, the Board of Directors of The Metropolitan Water District of Southern California has duly reviewed, discussed, and considered such Water Shortage Contingency Plan and has determined the Water Shortage Contingency Plan to be consistent with the Urban Water Management Planning Act and to be an accurate representation of the planned actions during shortage conditions for The Metropolitan Water District of Southern California.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of The Metropolitan Water District of Southern California that, on May 11, 2021, this District hereby adopts this Water Shortage Contingency Plan for submittal to the State of California and expressly authorizes the General Manager of The Metropolitan Water District of Southern California to approve the Annual Assessment each year.

I HEREBY CERTIFY that the foregoing is a full, true and correct copy of a resolution adopted by the Board of Directors of The Metropolitan Water District of Southern California, at its meeting held on May 11, 2021.

  
Secretary of the Board of Directors  
of The Metropolitan Water District  
of Southern California

# 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.

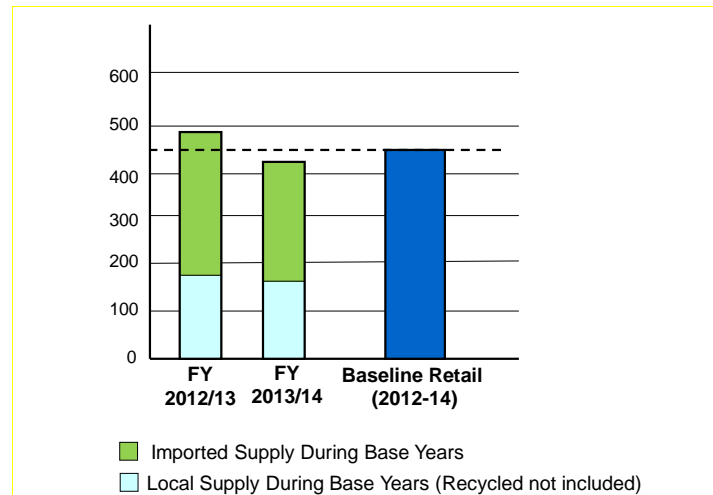
### **3. West Basin’s Shortage Allocation Methodology**

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.

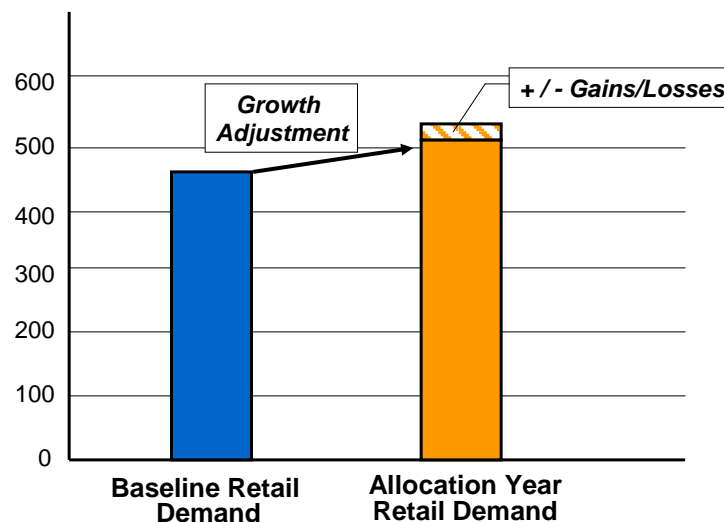
**Figure 1. Example of Baseline Calculation**



## 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.

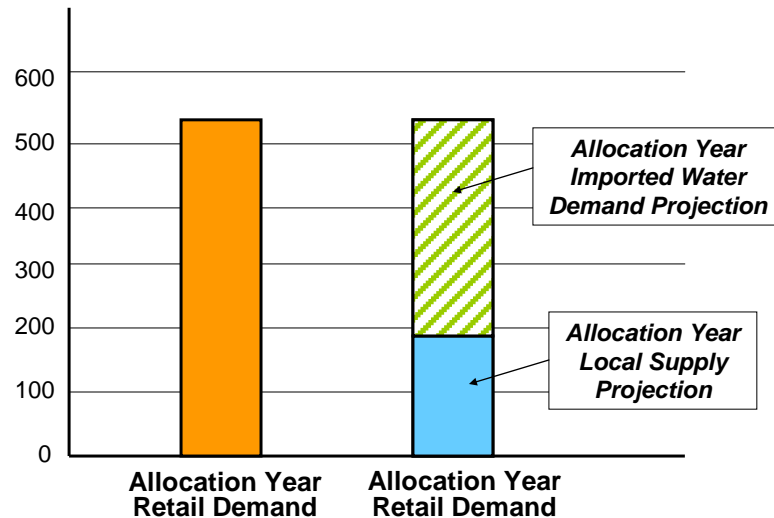
**Figure 2. Example of Allocation Year Adjustments**



## 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**

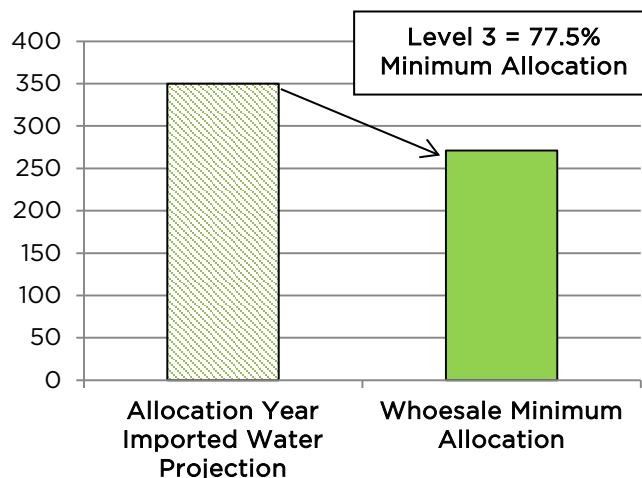


As shown in Figure 4, the projected imported water demand is what is allocated according to the declared regional shortage level (Level 3 for the 2015 Allocation). The following concepts help explain the allocation further:

- **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,

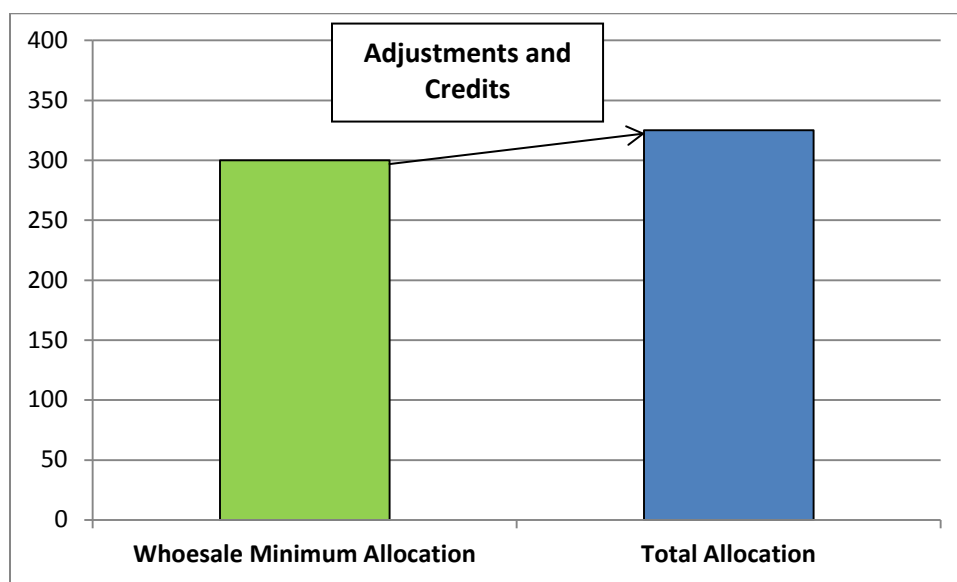
are allocated at the Regional Shortage Percentage instead of the Wholesale Minimum Allocation.

- **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**

<b>Usage Above Allocation</b>	<b>Penalty Rate</b>
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](mailto:leighannek@westbasin.org)  
310-660-6225

Fernando Paludi  
Associate General Manager  
[fernandop@westbasin.org](mailto:fernandop@westbasin.org)  
310-660-6214



---

## 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 14<sup>th</sup> 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](http://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](http://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](http://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](mailto: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](#)  
**To:** [cbilezerian@torranceca.gov](mailto:cbilezerian@torranceca.gov)  
**Cc:** [CSCHAICH@TorranceCA.gov](mailto: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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [GregG@rollinghillsestatesca.gov](mailto:GregG@rollinghillsestatesca.gov)  
**Cc:** [sarahh@rollinghillsestatesca.gov](mailto:sarahh@rollinghillsestatesca.gov); [alexad@rollinghillsestatesca.gov](mailto: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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [aram@rpvca.gov](mailto:aram@rpvca.gov)  
**Cc:** [kbanales@rpvca.gov](mailto:kbanales@rpvca.gov); [citymanager@rpvca.gov](mailto: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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [citymanager.web@cityofgardena.org](mailto:citymanager.web@cityofgardena.org)  
**Cc:** [Patrick Shields](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#); [nsweeney@cityofgardena.org](mailto:nsweeney@cityofgardena.org); [rdesantiago@cityofgardena.org](mailto: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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [ccarrillo@mwddh2o.com](mailto:ccarrillo@mwddh2o.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](http://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](mailto:edwardc@westbasin.org)



**From:** [E.J. Caldwell](mailto:E.J.Caldwell@surfrider-southbay.org)  
**To:** [info@surfrider-southbay.org](mailto:info@surfrider-southbay.org)  
**Cc:** [craig@surfrider-southbay.org](mailto: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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [citymanager@weho.org](mailto:citymanager@weho.org); [parevalo@weho.org](mailto:parevalo@weho.org)  
**Cc:** [jrocco@weho.org](mailto:jrocco@weho.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 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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [ejeng@cityofrh.net](mailto:ejeng@cityofrh.net)  
**Cc:** [cviramontes@cityofrh.net](mailto: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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [joe.hoefgen@redondo.org](mailto:joe.hoefgen@redondo.org)  
**Cc:** [ted.semaan@redondo.org](mailto: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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [citymanager@pvestates.org](mailto:citymanager@pvestates.org); [Lguglielmo@Pvestates.Org](mailto:Lguglielmo@Pvestates.Org)  
**Cc:** [Ccowley@Pvestates.Org](mailto:Ccowley@Pvestates.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 4:23:26 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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [rfeldman@malibucity.org](mailto:rfeldman@malibucity.org)  
**Cc:** [RDuboux@malibucity.org](mailto:RDuboux@malibucity.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 4:19:26 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](http://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](mailto:edwardc@westbasin.org)



**From:** [E.J. Caldwell](#)  
**To:** [KChun@lawndalecity.org](mailto:KChun@lawndalecity.org); [dparsley@lawndalecity.org](mailto: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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [suja@hermosabch.org](mailto:suja@hermosabch.org)  
**Cc:** [Patrick Shields](#); [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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [elee@cityofhawthorne.org](mailto: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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [john.nachbar@culvercity.org](mailto: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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [SLLanders@carsonca.gov](mailto: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.

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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [rbeste@wrd.org](mailto: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](http://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](mailto:edwardc@westbasin.org)



**From:** [E.J. Caldwell](#)  
**To:** [Russ Bryden](#); [drydman@dpw.lacounty.gov](mailto:drydman@dpw.lacounty.gov); [eballesteros@dpw.lacounty.gov](mailto:eballesteros@dpw.lacounty.gov); [KESKRIDGE@dpw.lacounty.gov](mailto: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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [Knutting@gswater.com](mailto:Knutting@gswater.com); [ccpak@gswater.com](mailto:ccpak@gswater.com); [ALCHAVEZ@gswater.com](mailto:ALCHAVEZ@gswater.com)  
**Cc:** [Greg Young](#); [Jim Crowley](#); [Gwyn-Mohr Tully](#); [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 3:11:59 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.

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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [c.dillon@lomitacity.com](mailto:c.dillon@lomitacity.com); [m.andersen@lomitacity.com](mailto:m.andersen@lomitacity.com); [philw@westaeng.com](mailto:philw@westaeng.com); [jakec@westaeng.com](mailto: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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [LAtwell@Cityofinglewood.org](mailto: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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [smitnick@elsegundo.org](mailto:smitnick@elsegundo.org)  
**Cc:** [aesparza@elsegundo.org](mailto:aesparza@elsegundo.org); [mwatkins@elsegundo.org](mailto: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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [mhurley@calwater.com](mailto:mhurley@calwater.com); [mbolzowski@calwater.org](mailto:mbolzowski@calwater.org); [rsorensen@calwater.com](mailto:rsorensen@calwater.com); [scordone@calwater.com](mailto:scordone@calwater.com); [darmendariz@calwater.com](mailto:darmendariz@calwater.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 2:25:39 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](http://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](mailto:edwardc@westbasin.org)



**From:** [E.J. Caldwell](#)  
**To:** [geoff.williamson@amwater.com](mailto:geoff.williamson@amwater.com); [nina.miller](mailto:nina.miller); [garry.hofer@amwater.com](mailto: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.

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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [bmoe@citymb.info](mailto:bmoe@citymb.info)  
**Cc:** [sgoe@citymb.info](mailto:sgoe@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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [Kelly Clark](#); [bruce@lawwaterkeeper.org](mailto:bruce@lawwaterkeeper.org)  
**Cc:** [Patrick Shields](#); [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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [elee@cityofhawthorne.org](mailto: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](http://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](mailto:edwardc@westbasin.org)

# CALIFORNIA NEWSPAPER SERVICE BUREAU

## DAILY JOURNAL CORPORATION

Mailing Address : 915 E FIRST ST, LOS ANGELES, CA 90012  
Telephone (800) 788-7840 / Fax (800) 464-2839  
Visit us @ [www.LegalAdstore.com](http://www.LegalAdstore.com)

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.

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

The West Basin Municipal Water District (West Basin) Board of Directors will hold a public hearing on **Thursday, June 10, 2021 at 10:00 AM**, to receive comments on the District's draft 2020 Urban Water Management Plan (UWMP), draft Water Shortage Contingency Plan (WSCP), and draft Appendix I as an addendum to its 2015 UWMP.

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](http://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](mailto: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 **Jueves 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=9474471> (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.westbasin.org](http://www.westbasin.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 [edwardc@westbasin.org](mailto:edwardc@westbasin.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**

The West Basin Municipal Water District (West Basin) Board of Directors will hold a public hearing on **Thursday, June 10, 2021 at 10:00 AM**, to receive comments on the District's draft 2020 Urban Water Management Plan (UWMP), draft Water Shortage Contingency Plan (WSCP), and draft Appendix I as an addendum to its 2015 UWMP.

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.igam2.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](http://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](mailto:edwardc@westbasin.org).  
**Gardena Valley News 5/27,6/3/21-105922**

# Advertising Order Confirmation

AdTaxi | Press-Telegram • The Beach Reporter  
Daily Breeze • Palos Verdes Peninsula News

<u>Ad Order Number</u> 0011461578	<u>Customer</u> WEST BASIN MUNICIPAL WATER DI	<u>Payor Customer</u> WEST BASIN MUNICIPAL WATER DI	<u>PO Number</u>
<u>Sales Representative</u> Pauline Fernandez	<u>Customer Account</u> 5041168	<u>Payor Account</u> 5041168	<u>Ordered By</u> MichaelC@westbasin.org
<u>Order Taker</u> Pauline Fernandez	<u>Customer Address</u> 17140 S AVALON BLVD STE 210 CARSON, CA 90746-1218	<u>Payor Address</u> 17140 S AVALON BLVD STE 210 CARSON, CA 90746-1218	<u>Customer Fax</u>
<u>Order Source</u> Select Source	<u>Customer Phone</u> 310-660-6224	<u>Payor Phone</u> 310-660-6224	<u>Customer Email</u>
<u>Current Queue</u> Quote	<u>Invoice Text</u> MichaelC@westbasin.org		
<u>Tear Sheets</u> 0	<u>Affidavits</u> 0	<u>Blind Box</u>	<u>Promo Type</u>
		<u>Materials</u>	<u>Special Pricing</u>

Advertising Order Confirmation

AdTaxi | Press-Telegram • The Beach Reporter  
Daily Breeze • Palos Verdes Peninsula News

Ad Number  
0011461578-01

Ad Size  
4 X 83 Li

Color

Production Color

Ad Attributes

Production Method

Production Notes

AdBooker

External Ad Number

Pick Up

Ad Type

Released for Publication

Legal Liner

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

The West Basin Municipal Water District (West Basin) Board of Directors will hold a public hearing on **Thursday, June 10, 2021 at 10:00AM**, to receive comments on the District's draft 2020 Urban Water Management Plan (UWMP), draft Water Shortage Contingency Plan (WSCP), and draft Appendix I as an addendum to its 2015 UWMP.

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://wbmwadca.iam2.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](http://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](mailto:edwardc@westbasin.org).

**Pub May 25; June 1, 2021 (21) DB (11461578)**

Product

Daily Breeze

Requested Placement

Legals CLS

Requested Position

General - 1076~

Run Dates

05/25/21, 06/01/21

# Inserts

2

# Advertising Order Confirmation

AdTaxi | Press-Telegram • The Beach Reporter  
Daily Breeze • Palos Verdes Peninsula News

## Order Charges:

<u>Net Amount</u>	<u>Tax Amount</u>	<u>Total Amount</u>	<u>Payment Amount</u>	<u>Amount Due</u>
1,107.32	0.00	1,107.32	0.00	\$1,107.32

If this confirmation includes an advertising proof, please check your proof carefully for errors, spelling, and/or typos. Errors not marked on the returned proof are not subject to credit or refunds.

Please note: To meet our printer's deadline, we must have your proof returned by the published deadline, and as indicated by your sales rep.

Please note: If you pay by bank card, your card statement will show the merchant as "SoCal Newspaper Group".

### 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

The West Basin Municipal Water District (West Basin) Board of Directors will hold a public hearing on **Thursday, June 10, 2021 at 10:00 AM**, to receive comments on the District's draft 2020 Urban Water Management Plan (UWMP), draft Water Shortage Contingency Plan (WSCP), and draft Appendix I as an addendum to its 2015 UWMP.

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.igm2.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](http://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](mailto:edwardc@westbasin.org).

Published The Malibu Times 5/27, 6/3/21





Legal Notices-GV

court and mail a copy to the personal representative appointed by the court within the later of either (1) four months from the date of first issuance of letters to a general personal representative, as defined in section 58(b) of the California Probate Code, or (2) 60 days from the date of mailing or personal delivery to you of a notice under section 9052 of the California Probate Code.

Other California statutes and legal authority may affect your rights as a creditor. You may want to consult with an attorney knowledgeable in California law.

**YOU MAY EXAMINE** the file kept by the court. If you are a person interested in the estate, you may file with the court a Request for Special Notice (form DE-154) of the filing of an inventory and appraisal of estate assets or of any petition or account as provided in Probate Code section 1250. A Request for Special

Legal Notices-GV

Notice form is available from the court clerk.

**Attorney for petitioner: MARK E SWATIK ESQ**

**SNB 269542**

**BURKLEY BRANDLIN & SWATIK LLP**

21515 HAWTHORNE BLVD STE 820

TORRANCE CA 90503

CN977527 GONZALEZ May 13,20,27, 2021

**Gardena Valley News 5/13,20,27/21-105964**

Legal Notices-GV

**NOTICE OF PETITION TO ADMINISTER ESTATE OF: JULIA DEE LUTH CASE NO. 19STPB00702**

To all heirs, beneficiaries, creditors, contingent creditors, and persons who may otherwise be interested in the WILL or estate, or both of JULIA DEE LUTH.

A PETITION FOR PROBATE has been filed by THOMAS D. LUTH in the Superior Court of California, County of LOS ANGELES.

THE PETITION FOR PROBATE requests

Legal Notices-GV

that THOMAS D. LUTH be appointed as personal representative to administer the estate of the decedent.

THE PETITION requests the decedent's WILL and codicils, if any, OR in the alternative, probate of the decedent's LOST WILL be admitted to probate.

The WILL and any codicils are available for examination in the file kept by the court.

THE PETITION requests authority to administer the estate under the Independent Administration of Estates Act. (This authority will allow the personal representative to take many actions without obtaining court approval. Before taking certain very important actions, however, the personal representative will be required to give notice to interested persons unless they have waived notice or consented to the proposed action.) The independent administration authority will be granted unless an interested person files an objection to the petition and shows good cause why the court should not grant the authority.

A HEARING on the petition will be held in this court as follows: 07/26/21 at 9:30AM in Dept. 44 located at 111 N. HILL ST., LOS ANGELES, CA 90012

IF YOU OBJECT to the granting of the petition, you should appear at the hearing and state your objections or file written objections with the court before the hearing. Your appearance may be in person or by your attorney.

IF YOU ARE A CREDITOR or a contingent creditor of the decedent, you must file your claim with the court and mail a copy to the personal representative appointed by the court within the later of either (1) four months from the date of first issuance of letters to a general personal representative, as defined in section 58(b) of the California Probate Code, or (2) 60 days from the date of mailing or personal delivery to you of a notice under section 9052 of the California Probate Code.

Other California statutes and legal authority may affect your rights as a creditor. You may want to consult with an attorney knowledgeable in California law.

**YOU MAY EXAMINE** the file kept by the court. If you are a person interested in the estate, you may file with the court a Request for Special Notice (form DE-154) of the filing of an inventory and appraisal of estate assets or of any petition or account as provided in Probate Code section 1250. A Request for Special

Legal Notices-GV

SBN 261839, JETER LAW

3655 TORRANCE BLVD.

3RD FLOOR

TORRANCE CA 90503

5/27, 6/3, 10/2021

**CNS-3473990#**

**GARDENA VALLEY NEWS**

**Gardena Valley News 5/27, 6/3, 10/2021-106366**

Legal Notices-GV

**NOTICE OF SALE NOTICE IS HEREBY GIVEN** that the undersigned intends to sell personal property and business goods and boxes of unknown content identified by Occupant name and items unit below, to enforce a lien imposed on said property pursuant to Sections 21700-21716 of the Business & Professions, section 2328 of the UCC, Section 535 of the Penal Code and provisions of the Civil Code.

The undersigned will sell at public sale by competitive bidding on **JUNE 3, 2021 AT 10:00 AM**, on the premises where said property has been stored known as:

**SAF KEEP SELF STORAGE**

**2045 W ROSECRANS AVE**

**GARDENA, CA 90249**

**310-225-2577**

County of Los Angeles, State of California, the following:

**NAME and ITEMS**

ROBY LAPLACE: DESK, SHOES, BARRELS, AND BLANKETS

JAMES SHAM-BURGER: DRESSER, AND BOXES

JONESHA SCOTT: S C O O T E R CLOTHES, AND BAGS

MICHAEL GIBSON: LOOSE ITEMS, COLLECTIBLES

A D R I N N A H A W T H O R N E : HOUSEHOLD ITEMS, AND BOXES

PIERCE ROBINSON: COUCH AND LOVE SEAT

JAMIE MCALISTER: LOOSE ITEMS, BOXES AND TOYS

BABY BERMUDEZ: TOTES, BOXES AND CABINET

JASMINE SITIA: SPEAKER AND BAGS

ANGELA HOOKS: HOUSEHOLD FURNITURE

DLITA MILLER: TOTE, AND WRAPPING PAPER

LYNN TAYLOR: HOUSEHOLD ITEMS, AND BAGS

NATALIA MELGAR AYALA: BAGS, CLOTHES AND TIRES

CHRIS ITOW: EXERCISE EQUIPMENT, AND TOTES

Purchases must be paid for at the time of purchase in cash only. All purchased items are sold as is, where is and must be removed at the time of sale. The sale is subject to cancellation in the event of settlement between Owner and obligated party.

AUCTIONEER: O'Brien's Auction and Vehicle Lien Service (951) 681-4113

B/N 158525941

**Gardena Valley News 5/20,27/2021-106149**

Legal Notices-GV

**NOTICE OF PETITION TO ADMINISTER ESTATE OF: PERRY HIROSHI UCHIDA CASE NO. 20STPB03477**

To all heirs, beneficiaries, creditors, contingent creditors, and persons who may otherwise be interested in the will or estate, or both, of PERRY HIROSHI UCHIDA.

A PETITION for Probate has been filed by: RYAN UCHIDA in the Superior Court of California, County of Los Angeles.

The Petition for Probate requests that RYAN UCHIDA be appointed as personal representative to administer the estate of the decedent.

The petition requests authority to administer the estate under the Independent Administration of Estates Act. (This authority will allow the personal representative to take many actions without obtaining court approval. Before taking certain very important actions, however, the personal representative will be required to give notice to interested persons unless they have waived notice or consented to the proposed action.) The independent administration authority will be granted unless an interested person files an objection to the petition and shows good cause why the court should not grant the authority.

A hearing on the petition will be held in this court as follows: **06/14/2021 at 9:30 AM, Dept. 44, 111 North Hill Street, Los Angeles, CA 90012.**

If you object to the granting of the petition, you should appear at the hearing and state your objections or file written objections with the court before the hearing. Your appearance may be in person or by your attorney.

If you are a creditor or a contingent creditor of the decedent, you must file your claim with the court and mail a copy to the personal representative appointed by the court within the later of either (1) four months from the date of first issuance of letters to a general personal representative, as defined in section 58(b) of the California Probate Code, or (2) 60 days from the date of mailing or personal delivery to you of a notice under section 9052 of the California Probate Code. Other California statutes and legal authority may affect your rights as a creditor. You may want to consult with an attorney knowledgeable in California law.

**YOU MAY EXAMINE** the file kept by the court. If you are a person interested in the estate, you may file with the court a Request for Special

Legal Notices-GV

Notice (form DE-154) of the filing of an inventory and appraisal of estate assets or of any petition or account as provided in Probate Code section 1250. A Request for Special Notice form is available from the court clerk.

Attorney for Petitioner: Cara J. Hagan, Esq., 110 E Wilshire Ave., Suite 405, Fullerton, CA 92832. 714-526-3377

**Gardena Valley News 5/27, 6/3, 10/2021-106462**

Legal Notices-GV

**ORDER TO SHOW CAUSE FOR CHANGE OF NAME CASE NO. 21TRCP00122**

TO ALL INTERESTED PERSONS: Petitioner: MARIA GLORIA RODRIGUEZ filed a petition with this court for a decree changing names as follows: MARIA GLORIA RODRIGUEZ to GLORIA RODRIGUEZ.

THE COURT ORDERS that all persons interested in this matter shall appear before this court at the hearing indicated below to show cause, if any, why the petition for change of name should not be granted. Any person objecting to the name changes described above must file a written objection that includes the reasons for the objection at least two court days before the matter is scheduled to be heard and must appear at the hearing to show cause why the petition should not be granted. If no written objection is timely filed, the court may grant the petition without a hearing.

**NOTICE OF HEARING 06/18/2021**

**8:30 a.m., Dept. B Superior Court of California County of Los Angeles**

**825 Maple Ave Torrance, CA 90503**

A copy of this Order to Show Cause shall be published at least once each week for four successive weeks prior to the date set for hearing on the petition in the following newspaper of general circulation, printed in this county: Gardena Valley News

DATE: 04/27/2021

Gary Y. Tanaka Judge of the Superior Court

**Gardena Valley News 5/6, 13, 20, 27/21-105740**

Legal Notices-GV

**NOTICE OF PETITION TO ADMINISTER ESTATE OF LARRY EDWARD VOIT CASE NO. 21STPB04720**

To all heirs, beneficiaries, creditors, contingent creditors, and persons who may otherwise be interested in the will or estate, or both, of LARRY EDWARD VOIT

A PETITION FOR PROBATE has been filed by MONIKA VOIT in the Superior Court of California, County of LOS ANGELES.

Legal Notices-GV

THE PETITION FOR PROBATE requests that CARLOS ANWANDTER - Brother of Surviving Spouse be appointed as personal representative to administer the estate of the decedent.

THE PETITION requests authority to administer the estate under the Independent Administration of Estates Act with full authority. (This authority will allow the personal representative to take many actions without obtaining court approval. Before taking certain very important actions, however, the personal representative will be required to give notice to interested persons unless they have waived notice or consented to the proposed action.) The independent administration authority will be granted unless an interested person files an objection to the petition and shows good cause why the court should not grant the authority.

A HEARING on the petition will be held on 06/16/2021 at 8:30 in Dept. 5 located at 111 N. HILL ST. LOS ANGELES CA 90012

STANLEY MOSK COURTHOUSE.

IF YOU OBJECT to the granting of the petition, you should appear at the hearing and state your objections or file written objections with the court before the hearing. Your appearance may be in person or by your attorney.

IF YOU ARE A CREDITOR or a contingent creditor of the decedent, you must file your claim with the court and mail a copy to the personal representative appointed by the court within the later of either (1) four months from the date of first issuance of letters to a general personal representative, as defined in section 58(b) of the California Probate Code, or (2) 60 days from the date of mailing or personal delivery to you of a notice under section 9052 of the California Probate Code.

Other California statutes and legal authority may affect your rights as a creditor. You may want to consult with an attorney knowledgeable in California law.

**YOU MAY EXAMINE** the file kept by the court. If you are a person interested in the estate, you may file with the court a Request for Special Notice (form DE-154) of the filing of an inventory and appraisal of estate assets or of any petition or account as provided in Probate Code section 1250. A Request for Special Notice form is available from the court clerk.

Attorney for Petitioner: SUSAN H. HOOVER SBN 165438

425 VIA CORTA, SUITE 201

PALOS VERDES ESTATES, CA 90274

Legal Notices-GV

Telephone: (310) 373-8525

5/27, 6/3, 6/10/21

**CNS-3475060#**

**GARDENA VALLEY NEWS**

**Gardena Valley News 5/27, 6/3, 10/2021-106466**

Legal Notices-GV

**PUBLIC NOTICE**

TO: Roberto Cabrera FROM: Wendy Cabrera

I am in the process of terminating your parental rights of your child born 01-04-2010. If you object contact me immediately at 310-989-6293.

**Gardena Valley News 5/20,27/2021-106176**

Legal Notices-GV

**Lien Sale**

Indo US fulfillment Inc, Unit G5 at 153 Rosecrance Ave Warehousing, LLC / ReadySpaces located at 153 W Rosecrans Ave, Gardena CA 90248 will be sold to the highest bidder at [www.StorageAuctions.com](http://www.StorageAuctions.com) on June 1, 2021 at 5:00 PM to satisfy the owner's lien for rent in accordance with CA law. All contents sold "as is" and by office only. Seller neither warrants title to any items sold and does not make any express or implied warranties to any item sold.

**Gardena Valley News 5/20,27/21-106234**

Legal Notices-GV

**FBN Legal Notices-**

**FICTITIOUS BUSINESS NAME STATEMENT 2021-086945**

The following person is doing business as: **BRADLEY LOCK & KEY**, 3181 E IMPERIAL HWY #D, LYNNWOOD, CA 90262. Registered Owners: JOSE ARMANDO MORALES SANTAY, 9120 1/4 SOUTH VERMONT AVE, LOS ANGELES, CA 90262. This business is conducted by: INDIVIDUAL. The date registrant started to transact business under the fictitious business name or names listed above is: N/A. Signed: JOSE ARMANDO MORALES SANTAY. This statement was filed with the County Recorder Office: 04/13/2021. Notice — This Fictitious Name Statement expires five years from the date it was filed in the office of the County Recorder Office. A new Fictitious Business Name Statement must be filed before that time. The filing of this statement does not of itself authorize the use in this state of a Fictitious Business Name in violation of the rights of another under federal, state or common law (see Section 14411 et seq., Business and Professions Code).

**Gardena Valley News 5/6, 13, 20, 27/21-103304**

Legal Notices-GV

**FICTITIOUS BUSINESS NAME STATEMENT 2021-086950**

The following person is doing business as: **BASKINS ROBBINS #360037**, 4066 S. VICTORIA AVE., LOS ANGELES, CA 90008.





#### Avisos Legales

AUTORIDAD DE TRANSPORTE METROPOLITANO DEL CONDADO DE LOS ANGELES (LACMTA) SOLICITUD DE PROYECTO

LACMTA recibirá propuestas para PS75288 - Consultor de Revisión de Diseño Turno de Desarrollo Conjunto en el Mostrador de Recepcionista del 9° Piso, Departamento de Gestión de Proveedores/Contratos, One Gateway Plaza, Los Angeles, CA 90012.

Todas las propuestas deben enviarse a LACMTA en una de las dos maneras: ya sea (1) sobres sellados por correo o entregados personalmente a la dirección de abajo, o (2) electrónicamente por correo electrónico a [bids@metro.net](mailto:bids@metro.net). Todas las propuestas deben ser recibidas por LACMTA en o antes de las 2:00 p.m. Hora del Pacífico del miércoles 26 de mayo de 2021. Las propuestas recibidas después de la fecha y hora anteriores serán rechazadas y devueltas al proponente sin abrir. Además, se recomienda que el correo(s) electrónico(s) del proponente se envíen con un recibo de Entrega y Lectura para sus registros. Por último, los proponentes deberán enviar un correo electrónico de verificación a nombre del Administrador del Contrato de la RFP después de enviar la propuesta(s) por correo electrónico a [bids@metro.net](mailto:bids@metro.net). El correo electrónico de verificación deberá indicar qué una propuesta ha sido enviada por el Nombre del Proveedor para la RFP# en X número de correos electrónicos.

Una conferencia Virtual Previa a la Propuesta se llevará a cabo a las 9:00 a.m. del miércoles 5 de mayo de 2021. Consulte la solicitud para obtener más detalles.

Para obtener una copia de la especificación de la Propuesta/Licitación visite nuestra Página de Convocatoria en nuestro Portal de Proveedores en <https://business.metro.net> o para obtener más información envíe un correo electrónico a Erica Rodriguez-Duvelgel a [erodriguezduvelgel@metro.net](mailto:erodriguezduvelgel@metro.net). 4/21, 4/22, 4/23, 4/24, 4/25, 4/26, 4/27, 4/28, 4/29, 4/30, 5/1, 5/2, 5/3, 5/4, 5/5, 5/6, 5/7, 5/8, 5/9, 5/10, 5/11, 5/12, 5/13, 5/14, 5/15, 5/16, 5/17, 5/18, 5/19, 5/20, 5/21, 5/22, 5/23, 5/24, 5/25, 5/26/21

CNS-3459802#  
LA OPINIÓN

Design/Build Opportunity with LACCD  
For future bidding opportunities please register with the District's Online Vendor Portal which can be accessed by visiting the website

#### Avisos Legales

**www.build-laccd.org** then clicking the **PlanetBids** link. NOTICE IS HEREBY GIVEN that the Los Angeles Community College District ("District") invites Design Build Entities to submit Statements of Qualification (SOQ) for the following procurement: **Request for Qualifications (RFQ) from Design Build Entities for Los Angeles City College, Cesar Chavez Admin & Workforce Replacement Bldg.**

**Phase 1 Scope of Work (tentative):** The new Cesar Chavez building is located at a central crossroads on the campus. Located immediately north of the Student Services building - it opens on the east to the College's Main Quad; frames a new college North Quad; and creates a west entry plaza for the campus along Heliotrope. The design of these quads, and their interconnections, will create a new "sense of place" for LACCD for decades to come. The building will form a functional and physical center for the College and should be visible from the nearby 101 freeway.

The new structure will be a 4-story building consolidating 16 departments into one building, including Senior Leadership, Business, Information Technology, Campus Safety, Dietetics, Career Technical Education, and Faculty and Staff Center. There is a large multipurpose room intended to foster indoor/outdoor events and available for community as available. The new building is estimated to be approximately 67,000 total Gross Square Feet (GSF), and 43,650 total Assignable Square Feet (ASF). All site work and site utilities required to integrate the new building into the campus are also included as defined by the Programming and Project Criteria (PPC) documents.

**Phase 2 Scope of work (tentative):** Demolition of the existing Cesar Chavez building after completion of the new building. The existing Cesar Chavez is a 3-story (plus partial basement), concrete-frame building that totals approximately 86,400 gross square feet, and shall be completely demolished as part of this project. Hazardous materials abatement to be performed prior to demolition. The scope of work also includes site restoration and creation of a new campus west entry plaza as defined by the PPC.

**How the Procurement Process for this Project will take place:** This procurement process will take place in two steps: Step 1 is the instant Request for Qualifications ("RFQ"); to be followed by Step 2, a Request for Proposal process to pre-qualified firms ("RFP"). Upon receipt and evaluation of the Statements of Qualifications ("SOQ's") submitted in response to this RFQ, the SOQ's will be scored, evaluated and ranked with the District selecting three

#### Avisos Legales

pre-qualified Applicant firms, designated as "Finalists", to receive the RFP. The Finalists proposals (including cost component) submitted in response to the RFP will then be scored, evaluated, and a successful Design Build Entity ("DBE") will be identified for award of a Design Build Contract using a "Best Value" (qualitative) method of selection. All Statement of Qualifications (SOQ) must be uploaded to the Online Vendor Portal per instructions contained in the RFQ. The District's Online Vendor Portal can be accessed by visiting the website **www.build-laccd.org** then clicking the **PlanetBids** link. Details regarding the Non-Mandatory (for GCs) Pre-SOQ Meeting can be found on the PlanetBids information tab. All questions shall be directed through the Online Vendor Portal. 5/25/21  
CNS-347377#  
LA OPINION

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY (LACMTA) REQUEST FOR PROPOSAL

LACMTA will receive proposals for PS75288 - Consultor de Revisión de Diseño Turno de Desarrollo Conjunto en el Mostrador de Recepcionista del 9° Piso, Departamento de Gestión de Proveedores/Contratos, One Gateway Plaza, Los Angeles, CA 90012.

This project is a Small Business Enterprise (SBE) Set-Aside contract. To participate in this RFP, proposers must be SBE certified with LACMTA prior to proposal due date. For information on the Set-Aside Program, visit: <https://business.metro.net/VendorPortal/faces/home1/certifications>.

All proposals must be submitted to LACMTA in one of two ways, either (1) sealed envelopes by mail or hand delivered to the address below, or (2) electronically via email to [bids@metro.net](mailto:bids@metro.net). All proposals must be received on or before 2:00 p.m. Pacific Time on Wednesday, June 30, 2021. Proposals received later than the above date and time will be rejected and returned to the proposer unopened. Additionally, it is recommended that proposer's email(s) are sent with a Delivery and Read receipt for their records. Lastly, proposers should send a verification email to the named Contract Administrator of the RFP after the email submission(s) of proposal to [bids@metro.net](mailto:bids@metro.net). The verification email should indicate that a proposal has been submitted by Vendor Name for RFP# on X number of emails.

A Virtual Pre-Proposal conference will be held at 11:00 a.m. on Wednesday, June 2, 2021. Refer to solicitation for details.

For a copy of the Proposal/Bid specification visit our Solicitation Page on

#### Avisos Legales

our Vendor Portal at <https://business.metro.net> or for further information email Erica Rodriguez-Duvelgel at [erodriguezduvelgel@metro.net](mailto:erodriguezduvelgel@metro.net). 5/19, 5/20, 5/21, 5/24, 5/25, 5/26, 5/27, 5/28, 5/31, 6/1, 6/2, 6/3, 6/4, 6/7, 6/8, 6/9, 6/10, 6/11, 6/14, 6/15, 6/16, 6/17, 6/18, 6/21, 6/22, 6/23, 6/24, 6/25, 6/28, 6/29, 6/30/21  
CNS-3469381#  
LA OPINION



#### Aptos. de Renta

**SOUTH GATE**  
**Apartamento de 1 RECAMARA**  
**\$1,475 al mes**  
**Sección 8 OK.**  
**No mascotas.**  
Manager Apt. M  
10348 California Av  
323-574-3276

#### Renta de Locales Comerciales

**MECHANIC SHOP FOR RENT**  
Good location, busy area, with 3 doors, more than 15 yrs in business, \$4,000 per month, utilities included, 9401 E. Garvey Ave. South El Monte, Ca. 91733  
562-480-8170  
Call Ray

**Se Renta Cocina**  
En negocio de licorería. Con drive through, completamente equipada, \$700 al mes "Negociable".  
11436 Cedar Ave. Bloomington, Ca. 92316  
Para más informes llame al:  
443-983-3911  
909-961-2441

#### Venta de Propiedades

**Se Venden Terrenos Vacantes En Nevada**  
Residenciales y Comerciales, 7 lotes grandes en Hwy 95 y 140, desde \$23,700 total cada uno, bajo enganche, \$187 al mes. Llame a Dueña Beatriz  
818-521-2042

## 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 **jueves 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 addendum 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 Órdenes 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://wbwmwda.igm2.com/Citizens/Default.aspx> (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 incluyen todos los elementos descritos en la Política del Plan Delta WR P1, Reducir la Dependencia Delta a Tráves 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.westbasin.org](http://www.westbasin.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 [edwardc@westbasin.org](mailto:edwardc@westbasin.org).

La Autoridad de Vivienda de la Ciudad de Los Angeles

**Actualización y cierre de la lista de espera de vivienda pública**

La Autoridad de Vivienda de la Ciudad de Los Angeles (HACLA) actualizará la lista de espera para los solicitantes a su programa de Vivienda Pública

Avisos de la actualización de la lista de espera se enviarán por correo a partir del 31 de mayo de 2021 y los solicitantes tendrán hasta el viernes 2 de julio de 2021 para responder. Los solicitantes que no respondan serán eliminados de la lista de espera.

Si ya ha solicitado vivienda pública y no ha recibido un aviso llame al 1-833-HACLA-4-U (833-422-5248) lunes – viernes 8:00 AM – 4:00 PM

HACLA cerrará la lista de espera para los solicitantes de unidades de vivienda pública de una (1) habitación. A partir del viernes 2 de julio de 2021, HACLA ya no aceptará solicitudes para unidades de 1 habitación. Cualquier solicitud recibida antes del 2 de julio de 2021 será honrada. Las solicitudes de unidades de una habitación recibidas después del 2 de julio de 2021 no se procesarán.

HACLA Centro de solicitudes  
2600 Wilshire Blvd  
Los Angeles, CA 90057  
1-833-HACLA-4-U

CNSB#3472034

#### Renta de Locales Comerciales

#### Renta de Locales Comerciales

#### Servicios Para Hogar Servicios Para Hogar Subastas Subastas

**CONTRATISTA GENERAL**

**www.zddcontractor.com**

Planos y construcción para garajes y estructuras. (ADU) Legalización de unidades existentes. Convierta su garaje en vivienda. Remodelaciones en general, construcción de Restaurantes y Locales Comerciales.

CSLB LIC. #554524

**562-412-5307**

**SUBASTA PÚBLICA**

**¡TODOS BIENVENIDOS!**

**MIÉRCOLES DESDE LAS 9 AM**

1907 W. Gage Ave.  
Los Angeles, CA, Esq. St. Andrews Pl.

**•SOLO EFECTIVO O CASHIER CHECK•**

**HANK'S WILSHIRE TOW**



#### Clasificados



**¿Necesitas un Abogado?**  
¡La Opinión lo tiene!

Busca en el directorio de servicios legales de La Opinión el abogado adecuado para ti.

Búscuelo en <http://laopinion.com/>

Para anunciarse llame GRATIS al:  
**800-626-8332**

#### Algo Nuevo Cada Día

#### Casas de Venta Casas de Venta

**COMPRAMOS CASAS**

**¡PAGAMOS HASTA 2 MILLONES!**

**626-236-2195**

#### Renta de Locales Comerciales

#### Renta de Locales Comerciales

#### LOCAL COMERCIAL EN RENTA

**4759 WHITTIER BLVD. EAST LOS ANGELES**  
Ideal para oficina, o fábrica de máquinas costura. Cuenta con cuarto de 'storage'. Aprox. 1,000 sq ft.  
**Llame en inglés al 213-422-4772 ó 213-422-9972**

La Opinión tiene cientos de trabajos en la edición impresa y en la red para que puedas escoger el tuyo.

**¡La Opinión lo tiene!**

**Clasificados!**

**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**

The West Basin Municipal Water District (West Basin) Board of Directors will hold a public hearing on Thursday, June 10, 2021 at 10:00 AM, to receive comments on the District's draft 2020 Urban Water Management Plan (UWMP), draft Water Shortage Contingency Plan (WSCP), and draft Appendix I as an addendum to its 2015 UWMP.

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.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.

## Public Notices

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](http://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](mailto:edwardc@westbasin.org).  
5/27, 6/3/21  
CNS-3473202#  
LOS ANGELES SENTINEL



**COASTAL DEVELOPMENT PERMIT NO. 14-058, CODE VIOLATION NO. 21-016, VARIANCE NO. 19-046, SITE PLAN REVIEW NOS. 14-044 AND 14-045, AND DEMOLITION PERMIT NO. 17-024** - An application for demolition of existing unpermitted 5,062 square-foot equestrian facility and construction of a new two-story 4,034 square foot barn, a one-story 1,486 square foot horse stable, a one-story 2,624 square foot horse stable, riding ring, and new onsite wastewater treatment system, with associated development including a new driveway, grading, and retaining walls, including a variance for a retaining wall exceeding six feet in height, site plan review for construction in excess of 18 feet in height, up to 28 feet for a pitched roof, and a site plan review for development on slopes steeper than 3 to 1

Location: 6295 Murphy Way  
APN: 4467-006-019  
Zoning: Rural Residential-Two Acre (RR-2)  
Applicant: The Land and Water Co.  
Owner: Tomboy Farms, LLC  
Appealable to: City Council  
Environmental Review: Categorical Exemption CEQA Guidelines Section 15303(a)  
Application Filed: September 30, 2014  
Case Planner: Lilly Rudolph, Contract Planner  
(310) 456-2489, extension 1rudolph@malibucity.org

**WIRELESS COMMUNICATION FACILITY NO. 19-020, COASTAL DEVELOPMENT PERMIT NO. 20-019, VARIANCE NO. 19-049, AND SITE PLAN REVIEW NO. 20-020** - An application filed on November 4, 2019, for the replacement of wireless antennas and electrical support equipment attached to a replacement utility pole with a new height of 39 feet (currently 34 feet), including a variance for construction of a wireless communications facility over 28 feet in height and a site plan review to place a wireless communications facility in the public right-of-way. In addition to City-issued permits, the applicant is required to obtain permits for use of the pole by Southern California Edison and will need to obtain an encroachment permit from Caltrans.

Nearest Location: 18921.5 Pacific Coast Highway  
Nearest APN: 4449-009-012  
Nearest Zoning: Rural Residential-Forty Acre  
GPS Coordinate: 34.039453, -118.587804  
Pole ID: #00203ATC  
Property Owner: Caltrans public right-of-way  
Appealable to: City Council and California Coastal Commission  
Environmental Review: Categorical Exemption CEQA Guidelines Sections 15301(b) and 15303(d)  
Application Filed: November 4, 2019  
Case Planner: Tyler Eaton, Assistant Planner  
(310) 456-2489, extension 273 teaton@malibucity.org  
Applicant: Alexa Rome, Motive, on behalf of Verizon Wireless  
arome@motive-energy.com (714) 752-4263

**WIRELESS COMMUNICATION FACILITY NO. 20-005, COASTAL DEVELOPMENT PERMIT NO. 20-031, VARIANCE NO. 20-021, AND SITE PLAN REVIEW NO. 20-037** - An application, filed on June 8, 2020, for the

Pole ID: #4303313E  
Property Owner: Caltrans, public right-of-way  
Appealable to: City Council and California Coastal Commission  
Environmental Review: Categorical Exemption CEQA Guidelines Section 15303(d)  
City Case Planner: Tyler Eaton, Assistant Planner  
(310) 456-2489, extension 273 teaton@malibucity.org  
Applicant: Bardo Osorio, Eukong Group, on behalf of Verizon Wireless  
bardo.osorio@eukongroup.com (949) 702-0566

For the projects identified above with a categorical exemption for environmental review, pursuant to the authority and criteria contained in the California Environmental Quality Act (CEQA), the Planning Director has analyzed these proposed projects and found that they are listed among the classes of projects that have been determined not to have a significant adverse effect on the environment. Therefore, the projects are categorically exempt from the provisions of CEQA. The Planning Director has further determined that none of the six exceptions to the use of a categorical exemption apply to these projects (CEQA Guidelines Section 15300.2).

A written staff report will be available at or before the hearing for the projects. All persons wishing to address the Commission regarding these matters will be afforded an opportunity in accordance with the Commission's procedures.

Copies of all related documents can be reviewed by any interested person by contacting the case planner during regular business hours. Oral and written comments may be presented to the Planning Commission on, or before, the date of the meeting.

**LOCAL APPEAL** - A decision of the Planning Commission may be appealed to the City Council by an aggrieved person by written statement setting forth the grounds for appeal. An appeal shall be filed with the City Clerk within ten days following the date of action (15 days for tentative maps) for which the appeal is made and shall be accompanied by an appeal form and filing fee, as specified by the City Council. Appeals shall be emailed to psalazar@malibucity.org and the filing fee shall be mailed to Malibu Planning Department, attention: Patricia Salazar, 23825 Stuart Ranch Road, Malibu, CA 90265. Payment must be received within 10 days of the appeal deadline. Appeal forms may be found online at [www.malibucity.org/planningforms](http://www.malibucity.org/planningforms). If you are unable to submit your appeal via email, please contact Patricia Salazar by calling (310) 456-2489 ext. 245 at least two business days before your appeal deadline to arrange alternative delivery of the appeal.

**COASTAL COMMISSION APPEAL** - For projects appealable to the Coastal Commission, an aggrieved person may appeal the Planning Commission's approval to the Coastal Commission within 10 working days of the issuance of the City's Notice of Final Action. Appeal forms may be found online at [www.coastal.ca.gov](http://www.coastal.ca.gov) or by calling 805-585-1800. Such an appeal must be filed with the Coastal Commission, not the City.

IF YOU CHALLENGE THE CITY'S ACTION, YOU ARE LIMITED TO RAISING ONLY THOSE ISSUES YOU OR SOMEONE ELSE

COMMON LAW (SEE SECTION 14411 ET SEQ., BUSINESS AND PROFESSIONS CODE).  
Publish in The Malibu Times 5/27, 6/03, 6/10, 6/17/21.

#### 2021 107312 FICTITIOUS BUSINESS NAME STATEMENT

THE FOLLOWING PERSON IS (ARE) DOING BUSINESS AS:

1. JEN'S PIRATE BOOTY
- 1048 S Los Angeles ST STE A
- LOS ANGELES, CA 90015 LOS ANGELES COUNTY
2. OPEN ROAD COMPANY
3. GLOBAL GYPSY INC
4. GOLDEN
5. GOLDEN BY JPB
6. JEN'S LITTLE PIRATE
7. JPB

#### REGISTERED OWNER(S):

1. OPEN ROAD CO LLC
- 1048 S LOS ANGELES ST STE A
- LOS ANGELES, CA 90015 CA

This business is conducted by a Limited Liability Company. The registrant has commenced to transact business under the fictitious business name or names listed above as of 02/2009. I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows to be false is guilty of a crime). Signed, JENNIFER ROSSI, CEO. This statement was filed with the County Clerk of Los Angeles County on MAY 10, 2021.

NOTICE IN ACCORDANCE WITH SUBDIVISION (a) OF SECTION 17920, A FICTITIOUS NAME STATEMENT GENERALLY EXPIRES AT THE END OF FIVE YEARS FROM THE DATE ON WHICH IT WAS FILED IN THE OFFICE OF THE COUNTY CLERK, EXCEPT, AS PROVIDED IN SUBDIVISION (b) OF SECTION 17920, WHERE IT EXPIRES 40 DAYS AFTER ANY CHANGE IN THE FACTS SET FORTH IN THE STATEMENT PURSUANT TO SECTION 17913 OTHER THAN A CHANGE IN THE RESIDENCE ADDRESS OF A REGISTERED OWNER. A NEW FICTITIOUS BUSINESS NAME STATEMENT MUST BE FILED BEFORE THE EXPIRATION. THE FILING OF THIS STATEMENT DOES NOT OF ITSELF AUTHORIZE THE USE IN THIS STATE OF A FICTITIOUS BUSINESS NAME IN VIOLATION OF THE RIGHTS OF ANOTHER UNDER FEDERAL, STATE, OR COMMON LAW (SEE SECTION 14411 ET SEQ., BUSINESS AND PROFESSIONS CODE).

Publish in The Malibu Times 5/27, 6/03, 6/10, 6/17/21.

#### 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

The West Basin Municipal Water District (West Basin) Board of Directors will hold a public hearing on **Thursday, June 10, 2021 at 10:00 AM**, to receive comments on the District's draft 2020 Urban Water Management Plan (UWMP), draft Water Shortage Contingency Plan (WSCP), and draft Appendix I as an addendum to its 2015 UWMP.

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.iqm2.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](http://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](mailto:edwardc@westbasin.org).

Published The Malibu Times 5/27, 6/3/21

NOTICE OF PUBLIC HEARING

# E

---

## Attachment E: Adoption Resolution

RESOLUTION NO. 06-21-1132

A RESOLUTION OF THE BOARD OF DIRECTORS  
OF WEST BASIN MUNICIPAL WATER DISTRICT  
ADOPTING THE WATER SHORTAGE CONTINGENCY PLAN

**WHEREAS**, West Basin Municipal Water District (West Basin) is a wholesale water agency that provides imported drinking water to more than 800,000 residents living in 17 cities and unincorporated areas of Los Angeles County; and

**WHEREAS**, the California Urban Water Management Planning Act requires urban water suppliers providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually to prepare and adopt, in accordance with prescribed requirements, a Water Shortage Contingency Plan; and

**WHEREAS**, the California Urban Water Management Planning Act specifies the requirements and procedures for adopting such Water Shortage Contingency Plans; and

**WHEREAS**, the West Basin Board of Directors has duly reviewed, discussed, and considered such Water Shortage Contingency Plan and has determined the Water Shortage Contingency Plan to be consistent with the California Urban Water Management Planning Act and to be an accurate representation of the planned actions during shortage conditions for the West Basin Municipal Water District.

**NOW, THEREFORE, BE IT RESOLVED**, by the Board of Directors of the West Basin Municipal Water District that, on June 28, 2021 this District hereby adopts this Water Shortage Contingency Plan for submittal to the state of California; and


**BE IT FURTHER RESOLVED**, that the President of the Board of Directors of the West Basin Municipal Water District is hereby authorized to sign the adopted Water Shortage Contingency Plan.

PASSED, APPROVED, AND ADOPTED on the 28th day, June 2021.

ATTEST

Secretary

President

  
\_\_\_\_\_  
President

# D

---

## Delta Reliance

# Technical Memorandum



**Date:** 6/28/2021

**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.<sup>1</sup> 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 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.

---

<sup>1</sup> 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.  
6/28/2021

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 UWMP 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 UWMP 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](http://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 the resolutions included in the 2020 UWMP Appendix F, the West Basin Board of Directors adopted the 2020 UWMP, Appendix I to the 2015 UWMP, and 2021 WSCP and authorized their submittal to the State of California.

**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 <u>not</u> 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								
Total Service Area Water 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
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)**

Table C-3: Calculation of Supplies Contributing to Regional Self-Reliance								
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; DWR UWMP Table C-4)**

**Table A.11-3  
Reliance on Water Supplies from the Delta Watershed**

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	-	-	-	-	-	-	-	-
<b>Total Water Supplies from the Delta Watershed</b>	<b>1,492,000</b>	<b>1,073,000</b>	<b>1,075,000</b>	<b>1,191,000</b>	<b>1,182,000</b>	<b>1,180,000</b>	<b>1,178,000</b>	<b>1,178,000</b>

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	4,925,000	5,032,000	5,156,000	5,261,000	5,374,000

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
<b>Change in Supplies from the Delta Watershed</b>	<b>NA</b>	<b>(419,000)</b>	<b>(417,000)</b>	<b>(301,000)</b>	<b>(310,000)</b>	<b>(312,000)</b>	<b>(314,000)</b>	<b>(314,000)</b>

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%	24.2%	23.5%	22.9%	22.4%	21.9%
<b>Change in Percent of Supplies from the Delta Watershed</b>	<b>NA</b>	<b>-7.6%</b>	<b>-6.6%</b>	<b>-3.0%</b>	<b>-3.7%</b>	<b>-4.3%</b>	<b>-4.8%</b>	<b>-5.2%</b>

Source: Metropolitan 2020 UWMP, Appendix 11 - Metropolitan's Reduced Delta Reliance Reporting (June 2021)

# 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.<sup>1</sup> 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

---

<sup>1</sup> 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
<b>TOTAL</b>			<b>211,889</b>	<b>70,263</b>

### 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 on 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/PDF%20About%20Your%20Water/Annual%20Achievement%20Report.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**



---

## Notifications



17140 S. Avalon Blvd.  
Carson, CA 90746

310-217-2411  
[www.westbasin.org](http://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](http://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](http://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](mailto: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](#)  
**To:** [cbilezerian@torranceca.gov](mailto:cbilezerian@torranceca.gov)  
**Cc:** [CSCHAICH@TorranceCA.gov](mailto: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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [GregG@rollinghillsestatesca.gov](mailto:GregG@rollinghillsestatesca.gov)  
**Cc:** [sarahh@rollinghillsestatesca.gov](mailto:sarahh@rollinghillsestatesca.gov); [alexad@rollinghillsestatesca.gov](mailto: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](http://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](mailto:edwardc@westbasin.org)



**From:** [E.J. Caldwell](#)  
**To:** [aram@rpvca.gov](mailto:aram@rpvca.gov)  
**Cc:** [kbanales@rpvca.gov](mailto:kbanales@rpvca.gov); [citymanager@rpvca.gov](mailto: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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [citymanager.web@cityofgardena.org](mailto:citymanager.web@cityofgardena.org)  
**Cc:** [Patrick Shields](#); [Julie Frazier-Mathews](#); [Rob Morrow](#); [Matthew Veeh](#); [nsweeney@cityofgardena.org](mailto:nsweeney@cityofgardena.org); [rdesantiago@cityofgardena.org](mailto: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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [ccarrillo@mwddh2o.com](mailto:ccarrillo@mwddh2o.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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](mailto:E.J.Caldwell@surfrider-southbay.org)  
**To:** [info@surfrider-southbay.org](mailto:info@surfrider-southbay.org)  
**Cc:** [craig@surfrider-southbay.org](mailto: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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [citymanager@weho.org](mailto:citymanager@weho.org); [parevalo@weho.org](mailto:parevalo@weho.org)  
**Cc:** [jrocco@weho.org](mailto:jrocco@weho.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 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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [ejeng@cityofrh.net](mailto:ejeng@cityofrh.net)  
**Cc:** [cviramontes@cityofrh.net](mailto: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](http://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](mailto:edwardc@westbasin.org)



**From:** [E.J. Caldwell](#)  
**To:** [joe.hoefgen@redondo.org](mailto:joe.hoefgen@redondo.org)  
**Cc:** [ted.semaan@redondo.org](mailto: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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [citymanager@pvestates.org](mailto:citymanager@pvestates.org); [Lguglielmo@Pvestates.Org](mailto:Lguglielmo@Pvestates.Org)  
**Cc:** [Ccowley@Pvestates.Org](mailto:Ccowley@Pvestates.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 4:23:26 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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [rfeldman@malibucity.org](mailto:rfeldman@malibucity.org)  
**Cc:** [RDuboux@malibucity.org](mailto:RDuboux@malibucity.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 4:19:26 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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [KChun@lawndalecity.org](mailto:KChun@lawndalecity.org); [dparsley@lawndalecity.org](mailto: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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [suja@hermosabch.org](mailto: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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [elee@cityofhawthorne.org](mailto: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](http://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](mailto:edwardc@westbasin.org)



**From:** [E.J. Caldwell](#)  
**To:** [john.nachbar@culvercity.org](mailto: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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [SLLanders@carsonca.gov](mailto: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.

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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [rbeste@wrd.org](mailto: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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [Russ Bryden](#); [drydman@dpw.lacounty.gov](mailto:drydman@dpw.lacounty.gov); [eballesteros@dpw.lacounty.gov](mailto:eballesteros@dpw.lacounty.gov); [KESKRIDGE@dpw.lacounty.gov](mailto: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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [Knutting@gswater.com](mailto:Knutting@gswater.com); [ccpak@gswater.com](mailto:ccpak@gswater.com); [ALCHAVEZ@gswater.com](mailto:ALCHAVEZ@gswater.com)  
**Cc:** [Greg Young](#); [Jim Crowley](#); [Gwyn-Mohr Tully](#); [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 3:11:59 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.

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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [c.dillon@lomitacity.com](mailto:c.dillon@lomitacity.com); [m.andersen@lomitacity.com](mailto:m.andersen@lomitacity.com); [philw@westaeng.com](mailto:philw@westaeng.com); [jakec@westaeng.com](mailto: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](http://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](mailto:edwardc@westbasin.org)



**From:** [E.J. Caldwell](#)  
**To:** [LAtwell@Cityofinglewood.org](mailto: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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [smitnick@elsegundo.org](mailto:smitnick@elsegundo.org)  
**Cc:** [aesparza@elsegundo.org](mailto:aesparza@elsegundo.org); [mwatkins@elsegundo.org](mailto: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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [mhurley@calwater.com](mailto:mhurley@calwater.com); [mbolzowski@calwater.org](mailto:mbolzowski@calwater.org); [rsorensen@calwater.com](mailto:rsorensen@calwater.com); [scordone@calwater.com](mailto:scordone@calwater.com); [darmendariz@calwater.com](mailto:darmendariz@calwater.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 2:25:39 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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [geoff.williamson@amwater.com](mailto:geoff.williamson@amwater.com); [nina.miller](mailto:nina.miller); [garry.hofer@amwater.com](mailto: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.

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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [bmoe@citymb.info](mailto:bmoe@citymb.info)  
**Cc:** [sgoe@citymb.info](mailto:sgoe@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](http://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](mailto:edwardc@westbasin.org)

**From:** [E.J. Caldwell](#)  
**To:** [Kelly Clark](#); [bruce@lawwaterkeeper.org](mailto:bruce@lawwaterkeeper.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](http://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](mailto:edwardc@westbasin.org)



**From:** [E.J. Caldwell](#)  
**To:** [elee@cityofhawthorne.org](mailto: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](http://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](mailto:edwardc@westbasin.org)

# CALIFORNIA NEWSPAPER SERVICE BUREAU

## DAILY JOURNAL CORPORATION

Mailing Address : 915 E FIRST ST, LOS ANGELES, CA 90012  
Telephone (800) 788-7840 / Fax (800) 464-2839  
Visit us @ [www.LegalAdstore.com](http://www.LegalAdstore.com)

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.

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

The West Basin Municipal Water District (West Basin) Board of Directors will hold a public hearing on **Thursday, June 10, 2021 at 10:00 AM**, to receive comments on the District's draft 2020 Urban Water Management Plan (UWMP), draft Water Shortage Contingency Plan (WSCP), and draft Appendix I as an addendum to its 2015 UWMP.

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](http://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](mailto: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 **Jueves 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://wbsmcdca.gm2.com/JoinersDefault.aspx> (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.westbasin.org](http://www.westbasin.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 [edwardc@westbasin.org](mailto:edwardc@westbasin.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**

The West Basin Municipal Water District (West Basin) Board of Directors will hold a public hearing on **Thursday, June 10, 2021 at 10:00 AM**, to receive comments on the District's draft 2020 Urban Water Management Plan (UWMP), draft Water Shortage Contingency Plan (WSCP), and draft Appendix I as an addendum to its 2015 UWMP.

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.igam2.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](http://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](mailto:edwardc@westbasin.org).  
**Gardena Valley News 5/27,6/3/21-105922**

# Advertising Order Confirmation

AdTaxi | Press-Telegram • The Beach Reporter  
Daily Breeze • Palos Verdes Peninsula News

<u>Ad Order Number</u> 0011461578	<u>Customer</u> WEST BASIN MUNICIPAL WATER DI	<u>Payor Customer</u> WEST BASIN MUNICIPAL WATER DI	<u>PO Number</u>
<u>Sales Representative</u> Pauline Fernandez	<u>Customer Account</u> 5041168	<u>Payor Account</u> 5041168	<u>Ordered By</u> MichaelC@westbasin.org
<u>Order Taker</u> Pauline Fernandez	<u>Customer Address</u> 17140 S AVALON BLVD STE 210 CARSON, CA 90746-1218	<u>Payor Address</u> 17140 S AVALON BLVD STE 210 CARSON, CA 90746-1218	<u>Customer Fax</u>
<u>Order Source</u> Select Source	<u>Customer Phone</u> 310-660-6224	<u>Payor Phone</u> 310-660-6224	<u>Customer EMail</u>
<u>Current Queue</u> Quote	<u>Invoice Text</u> MichaelC@westbasin.org		
<u>Tear Sheets</u> 0	<u>Affidavits</u> 0	<u>Blind Box</u>	<u>Promo Type</u>
		<u>Materials</u>	<u>Special Pricing</u>

Advertising Order Confirmation

AdTaxi | Press-Telegram • The Beach Reporter  
Daily Breeze • Palos Verdes Peninsula News

05/10/21 9:23:14AM  
Page 2

Ad Number  
0011461578-01

Ad Size  
4 X 83 Li

Color

Production Color

Ad Attributes

Production Method

Production Notes

AdBooker

External Ad Number

Pick Up

Ad Type

Released for Publication

Legal Liner

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

The West Basin Municipal Water District (West Basin) Board of Directors will hold a public hearing on **Thursday, June 10, 2021 at 10:00AM**, to receive comments on the District's draft 2020 Urban Water Management Plan (UWMP), draft Water Shortage Contingency Plan (WSCP), and draft Appendix I as an addendum to its 2015 UWMP.

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://wbmwadca.iam2.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](http://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](mailto:edwardc@westbasin.org).

**Pub May 25; June 1, 2021 (21) DB (11461578)**

Product

Daily Breeze

Requested Placement

Legals CLS

Requested Position

General - 1076~

Run Dates

05/25/21, 06/01/21

# Inserts

2

Advertising Order Confirmation

AdTaxi | Press-Telegram • The Beach Reporter  
Daily Breeze • Palos Verdes Peninsula News

Order Charges:

<u>Net Amount</u>	<u>Tax Amount</u>	<u>Total Amount</u>	<u>Payment Amount</u>	<u>Amount Due</u>
1,107.32	0.00	1,107.32	0.00	\$1,107.32

If this confirmation includes an advertising proof, please check your proof carefully for errors, spelling, and/or typos. Errors not marked on the returned proof are not subject to credit or refunds.

Please note: To meet our printer's deadline, we must have your proof returned by the published deadline, and as indicated by your sales rep.

Please note: If you pay by bank card, your card statement will show the merchant as "SoCal Newspaper Group".



### 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

The West Basin Municipal Water District (West Basin) Board of Directors will hold a public hearing on **Thursday, June 10, 2021 at 10:00 AM**, to receive comments on the District's draft 2020 Urban Water Management Plan (UWMP), draft Water Shortage Contingency Plan (WSCP), and draft Appendix I as an addendum to its 2015 UWMP.

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.igm2.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](http://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](mailto:edwardc@westbasin.org).

Published The Malibu Times 5/27, 6/3/21



Legal Notices-GV

court and mail a copy to the personal representative appointed by the court within the later of either (1) four months from the date of first issuance of letters to a general personal representative, as defined in section 58(b) of the California Probate Code, or (2) 60 days from the date of mailing or personal delivery to you of a notice under section 9052 of the California Probate Code.

Other California statutes and legal authority may affect your rights as a creditor. You may want to consult with an attorney knowledgeable in California law.

**YOU MAY EXAMINE** the file kept by the court. If you are a person interested in the estate, you may file with the court a Request for Special Notice (form DE-154) of the filing of an inventory and appraisal of estate assets or of any petition or account as provided in Probate Code section 1250. A Request for Special

Legal Notices-GV

Notice form is available from the court clerk.

**Attorney for petitioner: MARK E SWATIK ESQ**

**SNB 269542**

**BURKLEY BRANDLIN & SWATIK LLP**

21515 HAWTHORNE BLVD STE 820

TORRANCE CA 90503

CN977527 GONZALEZ May 13,20,27, 2021

**Gardena Valley News 5/13,20,27/21-105964**

Legal Notices-GV

**NOTICE OF PETITION TO ADMINISTER ESTATE OF: JULIA DEE LUTH CASE NO. 19STPB00702**

To all heirs, beneficiaries, creditors, contingent creditors, and persons who may otherwise be interested in the WILL or estate, or both of JULIA DEE LUTH.

A PETITION FOR PROBATE has been filed by THOMAS D. LUTH in the Superior Court of California, County of LOS ANGELES.

THE PETITION FOR PROBATE requests

Legal Notices-GV

that THOMAS D. LUTH be appointed as personal representative to administer the estate of the decedent.

THE PETITION requests the decedent's WILL and codicils, if any, OR in the alternative, probate of the decedent's LOST WILL be admitted to probate. The WILL and any codicils are available for examination in the file kept by the court.

THE PETITION requests authority to administer the estate under the Independent Administration of Estates Act. (This authority will allow the personal representative to take many actions without obtaining court approval. Before taking certain very important actions, however, the personal representative will be required to give notice to interested persons unless they have waived notice or consented to the proposed action.) The independent administration authority will be granted unless an interested person files an objection to the petition and shows good cause why the court should not grant the authority.

A HEARING on the petition will be held in this court as follows: 07/26/21 at 9:30AM in Dept. 44 located at 111 N. HILL ST., LOS ANGELES, CA 90012

IF YOU OBJECT to the granting of the petition, you should appear at the hearing and state your objections or file written objections with the court before the hearing. Your appearance may be in person or by your attorney.

IF YOU ARE A CREDITOR or a contingent creditor of the decedent, you must file your claim with the court and mail a copy to the personal representative appointed by the court within the later of either (1) four months from the date of first issuance of letters to a general personal representative, as defined in section 58(b) of the California Probate Code, or (2) 60 days from the date of mailing or personal delivery to you of a notice under section 9052 of the California Probate Code.

Other California statutes and legal authority may affect your rights as a creditor. You may want to consult with an attorney knowledgeable in California law.

**YOU MAY EXAMINE** the file kept by the court. If you are a person interested in the estate, you may file with the court a Request for Special Notice (form DE-154) of the filing of an inventory and appraisal of estate assets or of any petition or account as provided in Probate Code section 1250. A Request for Special

Legal Notices-GV

SBN 261839, JETER LAW

3655 TORRANCE BLVD.

3RD FLOOR

TORRANCE CA 90503

5/27, 6/3, 10/2021

**CNS-3473990#**

**GARDENA VALLEY NEWS**

**Gardena Valley News 5/27, 6/3, 10/2021-106366**

Legal Notices-GV

**NOTICE OF SALE NOTICE IS HEREBY GIVEN** that the undersigned intends to sell personal property and business goods and boxes of unknown content identified by Occupant name and items unit below, to enforce a lien imposed on said property pursuant to Sections 21700-21716 of the Business & Professions, section 2328 of the UCC, Section 535 of the Penal Code and provisions of the Civil Code.

The undersigned will sell at public sale by competitive bidding on **JUNE 3, 2021 AT 10:00 AM**, on the premises where said property has been stored known as:

**SAF KEEP SELF STORAGE**

**2045 W ROSECRANS AVE**

**GARDENA, CA 90249**

**310-225-2577**

County of Los Angeles, State of California, the following:

**NAME and ITEMS**

ROBY LAPLACE: DESK, SHOES, BARRELS, AND BLANKETS

JAMES SHAM-BURGER: DRESSER, AND BOXES

JONESHA SCOTT: S C O O T E R CLOTHES, AND BAGS

MICHAEL GIBSON: LOOSE ITEMS, COLLECTIBLES

A D R I N N A H A W T H O R N E : HOUSEHOLD ITEMS, AND BOXES

PIERCE ROBINSON: COUCH AND LOVE SEAT

JAMIE MCALISTER: LOOSE ITEMS, BOXES AND TOYS

BABY BERMEUDEZ: TOTES, BOXES AND CABINET

JASMINE SITIA: SPEAKER AND BAGS

ANGELA HOOKS: HOUSEHOLD FURNITURE

DLITA MILLER: TOTE, AND WRAPPING PAPER

LYNN TAYLOR: HOUSEHOLD ITEMS, AND BAGS

NATALIA MELGAR AYALA: BAGS, CLOTHES AND TIRES

CHRIS ITOW: EXERCISE EQUIPMENT, AND TOTES

Purchases must be paid for at the time of purchase in cash only. All purchased items are sold as is, where is and must be removed at the time of sale. The sale is subject to cancellation in the event of settlement between Owner and obligated party.

AUCTIONEER: O'Brien's Auction and Vehicle Lien Service (951) 681-4113

B/N 158525941

**Gardena Valley News 5/20,27/2021-106149**

Legal Notices-GV

**NOTICE OF PETITION TO ADMINISTER ESTATE OF: PERRY HIROSHI UCHIDA CASE NO. 20STPB03477**

To all heirs, beneficiaries, creditors, contingent creditors, and persons who may otherwise be interested in the will or estate, or both, of PERRY HIROSHI UCHIDA. A PETITION for Probate has been filed by: RYAN UCHIDA in the Superior Court of California, County of Los Angeles.

The Petition for Probate requests that RYAN UCHIDA be appointed as personal representative to administer the estate of the decedent.

The petition requests authority to administer the estate under the Independent Administration of Estates Act. (This authority will allow the personal representative to take many actions without obtaining court approval. Before taking certain very important actions, however, the personal representative will be required to give notice to interested persons unless they have waived notice or consented to the proposed action.) The independent administration authority will be granted unless an interested person files an objection to the petition and shows good cause why the court should not grant the authority.

A hearing on the petition will be held in this court as follows: **06/14/2021 at 9:30 AM, Dept. 44, 111 North Hill Street, Los Angeles, CA 90012.**

If you object to the granting of the petition, you should appear at the hearing and state your objections or file written objections with the court before the hearing. Your appearance may be in person or by your attorney.

If you are a creditor or a contingent creditor of the decedent, you must file your claim with the court and mail a copy to the personal representative appointed by the court within the later of either (1) four months from the date of first issuance of letters to a general personal representative, as defined in section 58(b) of the California Probate Code, or (2) 60 days from the date of mailing or personal delivery to you of a notice under section 9052 of the California Probate Code. Other California statutes and legal authority may affect your rights as a creditor. You may want to consult with an attorney knowledgeable in California law.

You may examine the file kept by the court. If you are a person interested in the estate, you may file with the court a Request for Special

Legal Notices-GV

Notice (form DE-154) of the filing of an inventory and appraisal of estate assets or of any petition or account as provided in Probate Code section 1250. A Request for Special Notice form is available from the court clerk.

Attorney for Petitioner: Cara J. Hagan, Esq., 110 E Wilshire Ave., Suite 405, Fullerton, CA 92832. 714-526-3377

**Gardena Valley News 5/27, 6/3, 10/2021-106462**

Legal Notices-GV

**ORDER TO SHOW CAUSE FOR CHANGE OF NAME CASE NO. 21TRCP00122**

TO ALL INTERESTED PERSONS: Petitioner: MARIA GLORIA RODRIGUEZ filed a petition with this court for a decree changing names as follows: MARIA GLORIA RODRIGUEZ to GLORIA RODRIGUEZ. THE COURT ORDERS that all persons interested in this matter shall appear before this court at the hearing indicated below to show cause, if any, why the petition for change of name should not be granted. Any person objecting to the name changes described above must file a written objection that includes the reasons for the objection at least two court days before the matter is scheduled to be heard and must appear at the hearing to show cause why the petition should not be granted. If no written objection is timely filed, the court may grant the petition without a hearing.

**NOTICE OF HEARING 06/18/2021**

**8:30 a.m., Dept. B Superior Court of California County of Los Angeles**

**825 Maple Ave Torrance, CA 90503**

A copy of this Order to Show Cause shall be published at least once each week for four successive weeks prior to the date set for hearing on the petition in the following newspaper of general circulation, printed in this county: Gardena Valley News

DATE: 04/27/2021

Gary Y. Tanaka Judge of the Superior Court

**Gardena Valley News 5/6, 13, 20, 27/21-105740**

Legal Notices-GV

**NOTICE OF PETITION TO ADMINISTER ESTATE OF LARRY EDWARD VOIT CASE NO. 21STPB04720**

To all heirs, beneficiaries, creditors, contingent creditors, and persons who may otherwise be interested in the will or estate, or both, of LARRY EDWARD VOIT

A PETITION FOR PROBATE has been filed by MONIKA VOIT in the Superior Court of California, County of LOS ANGELES.

Legal Notices-GV

THE PETITION FOR PROBATE requests that CARLOS ANWANDTER - Brother of Surviving Spouse be appointed as personal representative to administer the estate of the decedent.

THE PETITION requests authority to administer the estate under the Independent Administration of Estates Act with full authority. (This authority will allow the personal representative to take many actions without obtaining court approval. Before taking certain very important actions, however, the personal representative will be required to give notice to interested persons unless they have waived notice or consented to the proposed action.) The independent administration authority will be granted unless an interested person files an objection to the petition and shows good cause why the court should not grant the authority.

A HEARING on the petition will be held on 06/16/2021 at 8:30 in Dept. 5 located at 111 N. HILL ST. LOS ANGELES CA 90012

STANLEY MOSK COURTHOUSE.

IF YOU OBJECT to the granting of the petition, you should appear at the hearing and state your objections or file written objections with the court before the hearing. Your appearance may be in person or by your attorney.

IF YOU ARE A CREDITOR or a contingent creditor of the decedent, you must file your claim with the court and mail a copy to the personal representative appointed by the court within the later of either (1) four months from the date of first issuance of letters to a general personal representative, as defined in section 58(b) of the California Probate Code, or (2) 60 days from the date of mailing or personal delivery to you of a notice under section 9052 of the California Probate Code.

Other California statutes and legal authority may affect your rights as a creditor. You may want to consult with an attorney knowledgeable in California law.

**YOU MAY EXAMINE** the file kept by the court. If you are a person interested in the estate, you may file with the court a Request for Special Notice (form DE-154) of the filing of an inventory and appraisal of estate assets or of any petition or account as provided in Probate Code section 1250. A Request for Special Notice form is available from the court clerk.

Attorney for Petitioner: SUSAN H. HOOVER SBN 165438

425 VIA CORTA, SUITE 201

PALOS VERDES ESTATES, CA 90274

Legal Notices-GV

Telephone: (310) 373-8525

5/27, 6/3, 6/10/21

**CNS-3475060#**

**GARDENA VALLEY NEWS**

**Gardena Valley News 5/27, 6/3, 10/2021-106466**

Legal Notices-GV

**PUBLIC NOTICE**

TO: Roberto Cabrera FROM: Wendy Cabrera

I am in the process of terminating your parental rights of your child born 01-04-2010. If you object contact me immediately at 310-989-6293.

**Gardena Valley News 5/20,27/2021-106176**

Legal Notices-GV

**Lien Sale**

Indo US fulfillment Inc, Unit G5 at 153 Rosecrance Ave Warehousing, LLC / ReadySpaces located at 153 W Rosecrans Ave, Gardena CA 90248 will be sold to the highest bidder at [www.StorageAuctions.com](http://www.StorageAuctions.com) on June 1, 2021 at 5:00 PM to satisfy the owner's lien for rent in accordance with CA law. All contents sold "as is" and by office only. Seller neither warrants title to any items sold and does not make any express or implied warranties to any item sold.

**Gardena Valley News 5/20,27/21-106234**

Legal Notices-GV

**FBN Legal Notices-**

**FICTITIOUS BUSINESS NAME STATEMENT 2021-086945**

The following person is doing business as: **BRADLEY LOCK & KEY, 3181 E IMPERIAL HWY #D, LYNNWOOD, CA 90262.** Registered Owners: JOSE ARMANDO MORALES SANTAY, 9120 1/4 SOUTH VERMONT AVE, LOS ANGELES, CA 90262. This business is conducted by: INDIVIDUAL. The date registrant started to transact business under the fictitious business name or names listed above is: N/A. Signed: JOSE ARMANDO MORALES SANTAY. This statement was filed with the County Recorder Office: 04/13/2021. Notice — This Fictitious Name Statement expires five years from the date it was filed in the office of the County Recorder Office. A new Fictitious Business Name Statement must be filed before that time. The filing of this statement does not of itself authorize the use in this state of a Fictitious Business Name in violation of the rights of another under federal, state or common law (see Section 14411 et seq., Business and Professions Code).

**Gardena Valley News 5/6, 13, 20, 27/21-103304**

Legal Notices-GV

**FICTITIOUS BUSINESS NAME STATEMENT 2021-086950**

The following person is doing business as: **BASKINS ROBBINS #360037, 4066 S. VICTORIA AVE., LOS ANGELES, CA 90008.**





#### Avisos Legales

AUTORIDAD DE TRANSPORTE METROPOLITANO DEL CONDADO DE LOS ANGELES (LACMTA) SOLICITUD DE PROYECTO

LACMTA recibirá propuestas para PS75288 - Consultor de Revisión de Diseño Turno de Desarrollo Conjunto en el Mostrador de Recepcionista del 9° Piso, Departamento de Gestión de Proveedores/Contratos, One Gateway Plaza, Los Angeles, CA 90012.

Todas las propuestas deben enviarse a LACMTA en una de las dos maneras: ya sea (1) sobres sellados por correo o entregados personalmente a la dirección de abajo, o (2) electrónicamente por correo electrónico a [bids@metro.net](mailto:bids@metro.net). Todas las propuestas deben ser recibidas por LACMTA en o antes de las 2:00 p.m. Hora del Pacífico del miércoles 26 de mayo de 2021. Las propuestas recibidas después de la fecha y hora anteriores serán rechazadas y devueltas al proponente sin abrir. Además, se recomienda que el correo(s) electrónico(s) del proponente se envíen con un recibo de Entrega y Lectura para sus registros. Por último, los proponentes deberán enviar un correo electrónico de verificación a nombre del Administrador del Contrato de la RFP después de enviar la propuesta(s) por correo electrónico a [bids@metro.net](mailto:bids@metro.net). El correo electrónico de verificación deberá indicar qué una propuesta ha sido enviada por el Nombre del Proveedor para la RFP# en X número de correos electrónicos.

Una conferencia Virtual Previa a la Propuesta se llevará a cabo a las 9:00 a.m. del miércoles 5 de mayo de 2021. Consulte la solicitud para obtener más detalles.

Para obtener una copia de la especificación de la Propuesta/Licitación visite nuestra Página de Convocatoria en nuestro Portal de Proveedores en <https://business.metro.net> o para obtener más información envíe un correo electrónico a Erica Rodriguez-Duvelgel a [erodriguezduvelgel@metro.net](mailto:erodriguezduvelgel@metro.net). 4/21, 4/22, 4/23, 4/24, 4/25, 4/26, 4/27, 4/28, 4/29, 4/30, 5/1, 5/2, 5/3, 5/4, 5/5, 5/6, 5/7, 5/8, 5/9, 5/10, 5/11, 5/12, 5/13, 5/14, 5/15, 5/16, 5/17, 5/18, 5/19, 5/20, 5/21, 5/22, 5/23, 5/24, 5/25, 5/26/21

CNS-3459802#  
LA OPINIÓN

Design/Build Opportunity with LACCD  
For future bidding opportunities please register with the District's Online Vendor Portal which can be accessed by visiting the website

#### Avisos Legales

**www.build-laccd.org** then clicking the **PlanetBids** link. NOTICE IS HEREBY GIVEN that the Los Angeles Community College District ("District") invites Design Build Entities to submit Statements of Qualification (SOQ) for the following procurement: **Request for Qualifications (RFQ) from Design Build Entities for Los Angeles City College, Cesar Chavez Admin & Workforce Replacement Bldg.**

**Phase 1 Scope of Work (tentative):** The new Cesar Chavez building is located at a central crossroads on the campus. Located immediately north of the Student Services building - it opens on the east to the College's Main Quad; frames a new college North Quad; and creates a west entry plaza for the campus along Heliotrope. The design of these quads, and their interconnections, will create a new "sense of place" for LACCD for decades to come. The building will form a functional and physical center for the College and should be visible from the nearby 101 freeway.

The new structure will be a 4-story building consolidating 16 departments into one building, including Senior Leadership, Business, Information Technology, Campus Safety, Dietetics, Career Technical Education, and Faculty and Staff Center. There is a large multipurpose room intended to foster indoor/outdoor events and available for community as available. The new building is estimated to be approximately 67,000 total Gross Square Feet (GSF), and 43,650 total Assignable Square Feet (ASF). All site work and site utilities required to integrate the new building into the campus are also included as defined by the Programming and Project Criteria (PPC) documents.

**Phase 2 Scope of work (tentative):** Demolition of the existing Cesar Chavez building after completion of the new building. The existing Cesar Chavez is a 3-story (plus partial basement), concrete-frame building that totals approximately 86,400 gross square feet, and shall be completely demolished as part of this project. Hazardous materials abatement to be performed prior to demolition. The scope of work also includes site restoration and creation of a new campus west entry plaza as defined by the PPC.

**How the Procurement Process for this Project will take place:** This procurement process will take place in two steps: Step 1 is the instant Request for Qualifications ("RFQ"); to be followed by Step 2, a Request for Proposal process to pre-qualified firms ("RFP"). Upon receipt and evaluation of the Statements of Qualifications ("SOQ's") submitted in response to this RFQ, the SOQ's will be scored, evaluated and ranked with the District selecting three

#### Avisos Legales

pre-qualified Applicant firms, designated as "Finalists", to receive the RFP. The Finalists proposals (including cost component) submitted in response to the RFP will then be scored, evaluated, and a successful Design Build Entity ("DBE") will be identified for award of a Design Build Contract using a "Best Value" (qualitative) method of selection. All Statement of Qualifications (SOQ) must be uploaded to the Online Vendor Portal per instructions contained in the RFQ. The District's Online Vendor Portal can be accessed by visiting the website **www.build-laccd.org** then clicking the **PlanetBids** link. Details regarding the Non-Mandatory (for GCs) Pre-SOQ Meeting can be found on the PlanetBids information tab. All questions shall be directed through the Online Vendor Portal. 5/25/21  
CNS-347377#  
LA OPINION

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY (LACMTA) REQUEST FOR PROPOSAL

LACMTA will receive proposals for PS75288 - Consultor de Revisión de Diseño Turno de Desarrollo Conjunto en el Mostrador de Recepcionista del 9° Piso, Departamento de Gestión de Proveedores/Contratos, One Gateway Plaza, Los Angeles, CA 90012.

This project is a Small Business Enterprise (SBE) Set-Aside contract. To participate in this RFP, proposers must be SBE certified with LACMTA prior to proposal due date. For information on the Set-Aside Program, visit: <https://business.metro.net/VendorPortal/faces/home1/certifications>.

All proposals must be submitted to LACMTA in one of two ways, either (1) sealed envelopes by mail or hand delivered to the address below, or (2) electronically via email to [bids@metro.net](mailto:bids@metro.net). All proposals must be received on or before 2:00 p.m. Pacific Time on Wednesday, June 30, 2021. Proposals received later than the above date and time will be rejected and returned to the proposer unopened. Additionally, it is recommended that proposer's email(s) are sent with a Delivery and Read receipt for their records. Lastly, proposers should send a verification email to the named Contract Administrator of the RFP after the email submission(s) of proposal to [bids@metro.net](mailto:bids@metro.net). The verification email should indicate that a proposal has been submitted by Vendor Name for RFP# on X number of emails.

A Virtual Pre-Proposal conference will be held at 11:00 a.m. on Wednesday, June 2, 2021. Refer to solicitation for details.

For a copy of the Proposal/Bid specification visit our Solicitation Page on

#### Avisos Legales

our Vendor Portal at <https://business.metro.net> or for further information email Erica Rodriguez-Duvelgel at [erodriguezduvelgel@metro.net](mailto:erodriguezduvelgel@metro.net). 5/19, 5/20, 5/21, 5/24, 5/25, 5/26, 5/27, 5/28, 5/31, 6/1, 6/2, 6/3, 6/4, 6/7, 6/8, 6/9, 6/10, 6/11, 6/14, 6/15, 6/16, 6/17, 6/18, 6/21, 6/22, 6/23, 6/24, 6/25, 6/28, 6/29, 6/30/21  
CNS-3469381#  
LA OPINION



#### Aptos. de Renta

**SOUTH GATE**  
**Apartamento de 1 RECAMARA**  
**\$1,475 al mes**  
**Sección 8 OK.**  
**No mascotas.**  
**Manager Apt. M**  
**10348 California Av**  
**323-574-3276**

#### Renta de Locales Comerciales

**MECHANIC SHOP FOR RENT**  
Good location, busy area, with 3 doors, more than 15 yrs in business, \$4,000 per month, utilities included, 9401 E. Garvey Ave. South El Monte, Ca. 91733  
**562-480-8170**  
Call Ray

**Se Renta Cocina**  
En negocio de licorería. Con drive through, completamente equipada, \$700 al mes "Negociable".  
11436 Cedar Ave. Bloomington, Ca. 92316  
Para más informes llame al:  
**443-983-3911**  
**909-961-2441**

#### Venta de Propiedades

**Se Venden Terrenos Vacantes En Nevada**  
Residenciales y Comerciales, 7 lotes grandes en Hwy 95 y 140, desde \$23,700 total cada uno, bajo enganche, \$187 al mes. Llame a Dueña Beatriz  
**818-521-2042**

### 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 **jueves 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 addendum 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 Órdenes 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://wbwmwda.igm2.com/Citizens/Default.aspx> (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 incluyen todos los elementos descritos en la Política del Plan Delta WR P1, Reducir la Dependencia Delta a Tráves 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.westbasin.org](http://www.westbasin.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 [edwardc@westbasin.org](mailto:edwardc@westbasin.org).

La Autoridad de Vivienda de la Ciudad de Los Angeles

**Actualización y cierre de la lista de espera de vivienda pública**

La Autoridad de Vivienda de la Ciudad de Los Angeles (HACLA) actualizará la lista de espera para los solicitantes a su programa de Vivienda Pública

Avisos de la actualización de la lista de espera se enviarán por correo a partir del 31 de mayo de 2021 y los solicitantes tendrán hasta el viernes 2 de julio de 2021 para responder. Los solicitantes que no respondan serán eliminados de la lista de espera.

Si ya ha solicitado vivienda pública y no ha recibido un aviso llame al 1-833-HACLA-4-U (833-422-5248) lunes – viernes 8:00 AM – 4:00 PM

HACLA cerrará la lista de espera para los solicitantes de unidades de vivienda pública de una (1) habitación. A partir del viernes 2 de julio de 2021, HACLA ya no aceptará solicitudes para unidades de 1 habitación. Cualquier solicitud recibida antes del 2 de julio de 2021 será honrada. Las solicitudes de unidades de una habitación recibidas después del 2 de julio de 2021 no se procesarán.

HACLA Centro de solicitudes  
2600 Wilshire Blvd  
Los Angeles, CA 90057  
1-833-HACLA-4-U

CNSB#3472034

#### Renta de Locales Comerciales

#### Servicios Para Hogar

**CONTRATISTA GENERAL**

**www.zddcontractor.com**

Planos y construcción para garajes y estructuras. (ADU) Legalización de unidades existentes. Convierta su garaje en vivienda. Remodelaciones en general, construcción de Restaurantes y Locales Comerciales.

CSLB LIC. #554524

**562-412-5307**

**SUBASTA PÚBLICA**

**¡TODOS BIENVENIDOS!**

**MIÉRCOLES DESDE LAS 9 AM**

1907 W. Gage Ave.  
Los Angeles, CA, Esq. St. Andrews Pl.

**•SOLO EFECTIVO O CASHIER CHECK•**

**HANK'S WILSHIRE TOW**



#### Clasificados



#### ¿Necesitas un Abogado?

¡La Opinión lo tiene!

Busca en el directorio de servicios legales de La Opinión el abogado adecuado para ti.

Búscuelo en <http://laopinion.com/>

Para anunciarse llame GRATIS al:  
**800-626-8332**

#### Algo Nuevo Cada Día

#### Casas de Venta

**COMPRAMOS CASAS**

**¡PAGAMOS HASTA 2 MILLONES!**

**626-236-2195**

#### Renta de Locales Comerciales

#### LOCAL COMERCIAL EN RENTA

**4759 WHITTIER BLVD. EAST LOS ANGELES**  
Ideal para oficina, o fábrica de máquinas costura. Cuenta con cuarto de 'storage'. Aprox. 1,000 sq ft.  
**Llame en inglés al 213-422-4772 ó 213-422-9972**

La Opinión tiene cientos de trabajos en la edición impresa y en la red para que puedas escoger el tuyo.

#### ¡La Opinión lo tiene!

#### Clasificados!

**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**

The West Basin Municipal Water District (West Basin) Board of Directors will hold a public hearing on Thursday, June 10, 2021 at 10:00 AM, to receive comments on the District's draft 2020 Urban Water Management Plan (UWMP), draft Water Shortage Contingency Plan (WSCP), and draft Appendix I as an addendum to its 2015 UWMP.

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.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.

## Public Notices

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](http://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](mailto:edwardc@westbasin.org).  
5/27, 6/3/21  
CNS-3473202#  
LOS ANGELES SENTINEL



**COASTAL DEVELOPMENT PERMIT NO. 14-058, CODE VIOLATION NO. 21-016, VARIANCE NO. 19-046, SITE PLAN REVIEW NOS. 14-044 AND 14-045, AND DEMOLITION PERMIT NO. 17-024** - An application for demolition of existing unpermitted 5,062 square-foot equestrian facility and construction of a new two-story 4,034 square foot barn, a one-story 1,486 square foot horse stable, a one-story 2,624 square foot horse stable, riding ring, and new onsite wastewater treatment system, with associated development including a new driveway, grading, and retaining walls, including a variance for a retaining wall exceeding six feet in height, site plan review for construction in excess of 18 feet in height, up to 28 feet for a pitched roof, and a site plan review for development on slopes steeper than 3 to 1

Location: 6295 Murphy Way  
APN: 4467-006-019  
Zoning: Rural Residential-Two Acre (RR-2)  
Applicant: The Land and Water Co.  
Owner: Tomboy Farms, LLC  
Appealable to: City Council  
Environmental Review: Categorical Exemption CEQA Guidelines Section 15303(a)  
Application Filed: September 30, 2014  
Case Planner: Lilly Rudolph, Contract Planner  
(310) 456-2489, extension lrudolph@malibucity.org

**WIRELESS COMMUNICATION FACILITY NO. 19-020, COASTAL DEVELOPMENT PERMIT NO. 20-019, VARIANCE NO. 19-049, AND SITE PLAN REVIEW NO. 20-020** - An application filed on November 4, 2019, for the replacement of wireless antennas and electrical support equipment attached to a replacement utility pole with a new height of 39 feet (currently 34 feet), including a variance for construction of a wireless communications facility over 28 feet in height and a site plan review to place a wireless communications facility in the public right-of-way. In addition to City-issued permits, the applicant is required to obtain permits for use of the pole by Southern California Edison and will need to obtain an encroachment permit from Caltrans.

Nearest Location: 18921.5 Pacific Coast Highway  
Nearest APN: 4449-009-012  
Nearest Zoning: Rural Residential-Forty Acre  
GPS Coordinate: 34.039453, -118.587804  
Pole ID: #00203ATC  
Property Owner: Caltrans public right-of-way  
Appealable to: City Council and California Coastal Commission  
Environmental Review: Categorical Exemption CEQA Guidelines Sections 15301(b) and 15303(d)  
Application Filed: November 4, 2019  
Case Planner: Tyler Eaton, Assistant Planner  
(310) 456-2489, extension 273 teaton@malibucity.org  
Applicant: Alexa Rome, Motive, on behalf of Verizon Wireless  
arome@motive-energy.com (714) 752-4263

**WIRELESS COMMUNICATION FACILITY NO. 20-005, COASTAL DEVELOPMENT PERMIT NO. 20-031, VARIANCE NO. 20-021, AND SITE PLAN REVIEW NO. 20-037** - An application, filed on June 8, 2020, for the

Pole ID: #4303313E  
Property Owner: Caltrans, public right-of-way  
Appealable to: City Council and California Coastal Commission  
Environmental Review: Categorical Exemption CEQA Guidelines Section 15303(d)  
City Case Planner: Tyler Eaton, Assistant Planner  
(310) 456-2489, extension 273 teaton@malibucity.org  
Applicant: Bardo Osorio, Eukong Group, on behalf of Verizon Wireless  
bardo.osorio@eukongroup.com (949) 702-0566

For the projects identified above with a categorical exemption for environmental review, pursuant to the authority and criteria contained in the California Environmental Quality Act (CEQA), the Planning Director has analyzed these proposed projects and found that they are listed among the classes of projects that have been determined not to have a significant adverse effect on the environment. Therefore, the projects are categorically exempt from the provisions of CEQA. The Planning Director has further determined that none of the six exceptions to the use of a categorical exemption apply to these projects (CEQA Guidelines Section 15300.2).

A written staff report will be available at or before the hearing for the projects. All persons wishing to address the Commission regarding these matters will be afforded an opportunity in accordance with the Commission's procedures.

Copies of all related documents can be reviewed by any interested person by contacting the case planner during regular business hours. Oral and written comments may be presented to the Planning Commission on, or before, the date of the meeting.

**LOCAL APPEAL** - A decision of the Planning Commission may be appealed to the City Council by an aggrieved person by written statement setting forth the grounds for appeal. An appeal shall be filed with the City Clerk within ten days following the date of action (15 days for tentative maps) for which the appeal is made and shall be accompanied by an appeal form and filing fee, as specified by the City Council. Appeals shall be emailed to psalazar@malibucity.org and the filing fee shall be mailed to Malibu Planning Department, attention: Patricia Salazar, 23825 Stuart Ranch Road, Malibu, CA 90265. Payment must be received within 10 days of the appeal deadline. Appeal forms may be found online at [www.malibucity.org/planningforms](http://www.malibucity.org/planningforms). If you are unable to submit your appeal via email, please contact Patricia Salazar by calling (310) 456-2489 ext. 245 at least two business days before your appeal deadline to arrange alternative delivery of the appeal.

**COASTAL COMMISSION APPEAL** - For projects appealable to the Coastal Commission, an aggrieved person may appeal the Planning Commission's approval to the Coastal Commission within 10 working days of the issuance of the City's Notice of Final Action. Appeal forms may be found online at [www.coastal.ca.gov](http://www.coastal.ca.gov) or by calling 805-585-1800. Such an appeal must be filed with the Coastal Commission, not the City.

IF YOU CHALLENGE THE CITY'S ACTION, YOU ARE LIMITED TO RAISING ONLY THOSE ISSUES YOU OR SOMEONE ELSE

COMMON LAW (SEE SECTION 14411 ET SEQ., BUSINESS AND PROFESSIONS CODE).  
Publish in The Malibu Times 5/27, 6/03, 6/10, 6/17/21.

#### 2021 107312 FICTITIOUS BUSINESS NAME STATEMENT

THE FOLLOWING PERSON IS (ARE) DOING BUSINESS AS:

1. JEN'S PIRATE BOOTY
- 1048 S Los Angeles ST STE A
- LOS ANGELES, CA 90015 LOS ANGELES COUNTY
2. OPEN ROAD COMPANY
3. GLOBAL GYPSY INC
4. GOLDEN
5. GOLDEN BY JPB
6. JEN'S LITTLE PIRATE
7. JPB

REGISTERED OWNER(S):

1. OPEN ROAD CO LLC
- 1048 S LOS ANGELES ST STE A
- LOS ANGELES, CA 90015 CA

This business is conducted by a Limited Liability Company. The registrant has commenced to transact business under the fictitious business name or names listed above as of 02/2009. I declare that all information in this statement is true and correct. (A registrant who declares as true information which he or she knows to be false is guilty of a crime). Signed, JENNIFER ROSSI, CEO. This statement was filed with the County Clerk of Los Angeles County on MAY 10, 2021.

NOTICE IN ACCORDANCE WITH SUBDIVISION (a) OF SECTION 17920, A FICTITIOUS NAME STATEMENT GENERALLY EXPIRES AT THE END OF FIVE YEARS FROM THE DATE ON WHICH IT WAS FILED IN THE OFFICE OF THE COUNTY CLERK, EXCEPT, AS PROVIDED IN SUBDIVISION (b) OF SECTION 17920, WHERE IT EXPIRES 40 DAYS AFTER ANY CHANGE IN THE FACTS SET FORTH IN THE STATEMENT PURSUANT TO SECTION 17913 OTHER THAN A CHANGE IN THE RESIDENCE ADDRESS OF A REGISTERED OWNER. A NEW FICTITIOUS BUSINESS NAME STATEMENT MUST BE FILED BEFORE THE EXPIRATION. THE FILING OF THIS STATEMENT DOES NOT OF ITSELF AUTHORIZE THE USE IN THIS STATE OF A FICTITIOUS BUSINESS NAME IN VIOLATION OF THE RIGHTS OF ANOTHER UNDER FEDERAL, STATE, OR COMMON LAW (SEE SECTION 14411 ET SEQ., BUSINESS AND PROFESSIONS CODE).

Publish in The Malibu Times 5/27, 6/03, 6/10, 6/17/21.

#### 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

The West Basin Municipal Water District (West Basin) Board of Directors will hold a public hearing on **Thursday, June 10, 2021 at 10:00 AM**, to receive comments on the District's draft 2020 Urban Water Management Plan (UWMP), draft Water Shortage Contingency Plan (WSCP), and draft Appendix I as an addendum to its 2015 UWMP.

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.iqm2.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](http://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](mailto:edwardc@westbasin.org).

Published The Malibu Times 5/27, 6/3/21

NOTICE OF PUBLIC HEARING

# F

---

## Adoption Resolutions



RESOLUTION NO. 06-21-1131

A RESOLUTION OF THE BOARD OF DIRECTORS  
OF WEST BASIN MUNICIPAL WATER DISTRICT  
ADOPTING THE 2020 URBAN WATER MANAGEMENT PLAN

**WHEREAS**, West Basin Municipal Water District (West Basin) is a wholesale water agency that provides imported drinking water to more than 800,000 residents living in 17 cities and unincorporated areas of Los Angeles County; and

**WHEREAS**, the California Urban Water Management Planning Act requires urban water suppliers providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually to prepare and adopt an Urban Water Management Plan every five years; and

**WHEREAS**, the California Urban Water Management Planning Act specifies the requirements and procedures for adopting such Urban Water Management Plans; and

**WHEREAS**, the West Basin Board of Directors has duly reviewed, discussed, and considered the 2020 Urban Water Management Plan and has determined the 2020 Urban Water Management Plan to be consistent with the California Urban Water Management Planning Act and to be an accurate representation of the water resources plan for the West Basin Municipal Water District.

**NOW, THEREFORE, BE IT RESOLVED**, by the Board of Directors of the West Basin Municipal Water District that, on June 28, 2021 this District hereby adopts this 2020 Urban Water Management Plan for submittal to the state of California; and

**BE IT FURTHER RESOLVED**, that the President of the Board of Directors of the West Basin Municipal Water District is hereby authorized to sign the adopted 2020 Urban Water Management Plan.

PASSED, APPROVED, AND ADOPTED on the 28th day, June 2021.

  
President

ATTEST

  
Secretary

RESOLUTION NO. 06-21-1132

A RESOLUTION OF THE BOARD OF DIRECTORS  
OF WEST BASIN MUNICIPAL WATER DISTRICT  
ADOPTING THE WATER SHORTAGE CONTINGENCY PLAN

**WHEREAS**, West Basin Municipal Water District (West Basin) is a wholesale water agency that provides imported drinking water to more than 800,000 residents living in 17 cities and unincorporated areas of Los Angeles County; and

**WHEREAS**, the California Urban Water Management Planning Act requires urban water suppliers providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually to prepare and adopt, in accordance with prescribed requirements, a Water Shortage Contingency Plan; and

**WHEREAS**, the California Urban Water Management Planning Act specifies the requirements and procedures for adopting such Water Shortage Contingency Plans; and

**WHEREAS**, the West Basin Board of Directors has duly reviewed, discussed, and considered such Water Shortage Contingency Plan and has determined the Water Shortage Contingency Plan to be consistent with the California Urban Water Management Planning Act and to be an accurate representation of the planned actions during shortage conditions for the West Basin Municipal Water District.

**NOW, THEREFORE, BE IT RESOLVED**, by the Board of Directors of the West Basin Municipal Water District that, on June 28, 2021 this District hereby adopts this Water Shortage Contingency Plan for submittal to the state of California; and

**BE IT FURTHER RESOLVED**, that the President of the Board of Directors of the West Basin Municipal Water District is hereby authorized to sign the adopted Water Shortage Contingency Plan.

PASSED, APPROVED, AND ADOPTED on the 28th day, June 2021.

ATTEST

Secretary

  
President

**RESOLUTION NO. 06-21-1133**

**A RESOLUTION OF THE BOARD OF DIRECTORS  
OF THE WEST BASIN MUNICIPAL WATER DISTRICT  
ADOPTING APPENDIX I AS AN ADDENDUM TO THE 2015 URBAN WATER MANAGEMENT PLAN**

**WHEREAS**, West Basin Municipal Water District (West Basin) is a wholesale water agency that provides imported drinking water to more than 800,000 residents living in 17 cities and unincorporated areas of Los Angeles County; and

**WHEREAS**, the California Urban Water Management Planning Act requires urban water suppliers providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually to prepare and adopt, in accordance with prescribed requirements, an Urban Water Management Plan every five years; and

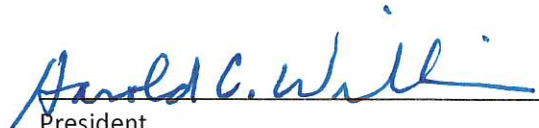
**WHEREAS**, the California Urban Water Management Planning Act specifies the requirements and procedures for adopting such Urban Water Management Plans; and

**WHEREAS**, the West Basin Board of Directors has duly reviewed, discussed, and considered Appendix I as an addendum to West Basin's 2015 Urban Water Management Plan and has determined Appendix I to be consistent with the California Urban Water Management Planning Act and 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 Urban Water Management Plan to support a certification of consistency for a future covered action.

**NOW, THEREFORE, BE IT RESOLVED**, by the Board of Directors of the West Basin Municipal Water District that, on June 28, 2021 this District hereby adopts this Appendix I to the 2015 Urban Water Management Plan for submittal to the state of California; and

**BE IT FURTHER RESOLVED**, that the President of the Board of Directors of the West Basin Municipal Water District is hereby authorized to sign the adopted Appendix I to the 2015 Urban Water Management Plan.

PASSED, APPROVED, AND ADOPTED on the 28th day, June 2021.

  
\_\_\_\_\_  
President

ATTEST

Secretary

A handwritten signature in blue ink is written over a horizontal line. The signature is stylized and appears to be a cursive representation of a name.



---

# West Coast Groundwater Basin Adjudication and Amendment

Judgment entered  
August 22, 1961  
Book 4291,  
Page 62

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA  
IN AND FOR THE COUNTY OF LOS ANGELES

CALIFORNIA WATER SERVICE COMPANY, et al,	}	
Plaintiffs.		No. 506,806
vs.		JUDGMENT
CITY OF COMPTON, et al,		
Defendants.		

The above-entitled matter came on regularly for further trial before the Honorable George Francis, Judge of the Superior Court of the State of California, assigned by the Chairman of the Judicial Council to sit in this case on Friday the 21st day of July, 1961. Thereupon plaintiffs filed a dismissal of the action as to certain defendants named in the Complaint, and in the amended Complaint herein who are not mentioned or referred to in Paragraph IV of this Judgment, and the further trial of the action proceeded in respect to the remaining parties.

Oral and documentary evidence was introduced, and the matter was submitted to the Court for decision. The Court having made and filed its Findings of Fact and Conclusions of Law:

NOW, THEREFORE, IT IS HEREBY ORDERED, ADJUDGED AND DECREED  
AS FOLLOWS:

I

There exists in the County of Los Angeles, State of California, an underground water basin or reservoir known and hereinafter referred to as "West Coast Basin" or the "Basin," and the boundaries thereof are described as follows:

Commencing at a point in the Baldwin Hills about 1300 feet north and about 100 feet west of the intersection of Marvale Drive and Northridge Drive; thence through a point about 200 feet northeasterly along Northridge Drive from the intersection of Marvale and Northridge Drives to the base of the escarpment of the Potrero fault; thence along the base of the escarpment of the Potrero fault in a straight line passing through a point about 200 feet south of the intersection of Century and Crenshaw Boulevards and extending about 2650 feet beyond this point to the southerly end of the Potrero escarpment; thence from the southerly end of the Potrero escarpment in a line passing about 700 feet south of the intersection of Western Avenue and Imperial Boulevard and about 400 feet north of the intersection of El Segundo Boulevard and Vermont Avenue and about 1700 feet south of the intersection of El Segundo Boulevard and Figueroa Street to the northerly end of the escarpment of the Avalon-Compton fault at a point on said fault about 700 feet west of the intersection of Avalon Boulevard and Rosecrans Avenue; thence along the escarpment of the Avalon-Compton fault to a point in the Dominguez Hills located about 1300 feet north and about 850 feet west of the intersection of Central Avenue and Victoria Street; thence along the crest of the Dominguez Hills in a 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</u>	<u>ADJUDICATED RIGHT</u>
18	<u>AND SUCCESSOR, IF ANY</u>	
19	JOE ABEGG	0
20	FRANK ABELL	1.8
21	ALEXANDER ABERCROMBY	0
22	Henry Abercromby	
23	one Fred Roland Cooper	
24	one Ted R. Cooper	
25	one Roy F. Knapp	
26	AIRWAYS WATER COMPANY (Incorporated)	0
27	H. A. ALLEN	0
28	*ALLIED CHEMICAL CORPORATION, a	255.0
29	corporation, formerly General	
30	Chemical Company	
31	ALUMINUM COMPANY OF AMERICA	0
32	one U.S. Navy Department	1.7
	AMERICAN RADIATOR & STANDARD SANITARY	0
	CORPORATION, a corporation	

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	*Devisees 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
	WM. D. BAILEY	0
21	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	0
	one Riverside Cement Company	
3	BEGO CORPORATION, a corporation	0
4	one Arthur J. Delaney	4.1
5	J. W. BELLES	0
	one L. W. Mason	
6	one S. M. Mason	
7	BELVIDERE MUTUAL WATER COMPANY	33.4
8	JAMES BERARDINO, sued as	0
	James Bernardino and	
9	Jim Berardino, sued as	
	Jim Bernardino	
10	P. BERDOLLIT	0
11	T. J. Heithold	
12	A. M. BERNARD	0
	one Moneta Gardens, Inc., a corporation	
13	H. W. BEST	0
14	LOUIS BIZEGO	0
15	ALEXANDER R. BLACK	0
16	one Liberty Investment Company	
17	ARTHUR A. BLAIN, SR., sued as	0
	A. A. Blain	
18	N. J. BLAIS	0
19	one Michael Chuchor	
	one Albert J. Sahn	
20	H. H. BLAKE	0
21	one Pearl E. Grady	
22	ARNOLD BLOEMSMA, sued as	0
	Arnold Bloesma	
23	BODGER REALTY COMPANY, (The),	0
24	a corporation	
25	COLIN J. BOONE	0
	Clarence J. Lamb	
26	Lora Lamb	
27	ANNA BOONSTRA	0
	Tedde Boonstra	
28	one M. V. Deniz	
29	CHARLES P. BOWMAN, sued as	0
	Pat Bowen	
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		
	*CHANSLOP-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.,	18.5
9	sued as Columbia Broadcasting Co.	
10	COMMUNITY AIRPORTS, INC., a corporation	0
11	V. G. COMPARETTE	0
12	CITY OF COMPTON	0
13	COMPTON BRICK & TILE COMPANY, a	0
14	corporation	
15	COMPTON UNION HIGH SCHOOL DISTRICT	0
16	F. A. CONOVER	0
17	A. CORTRITE	0
18	EDWARD COST and EMILY COST, sued as	7.4
19	Emily Costa	
20	ERNEST COST	0
21	DANIEL CROWLEY	0
22	OWEN W. CURTIS	3.8
23	LOUIS DALLAPE, sued as	0
24	Louis Dallapi	
25	TOM DALLAPE	0
26	MIKE DARBEAIAN, sued as	0
27	John Doe 25	
28	LUIGI DeBARNARDI	0
29	GERASIMOS K. DEFTERIOS	0
30	one Anna G. Defterios	
31	*DEL AMO ESTATE COMPANY	121.0
32	HENRY M. DENISON	0
	one Frank A. Basso	
	FRANK DERMODY	0



2 12

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	Julius 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	8.2
3	Jane Doe 12	
4	Mariana T. Etchemendy, sued.	
5	as Jane Doe 11	
6	CARMELITA ROSECRANS EWING, sued as	91.3
7	C. F. Rosecrans and	
8	W. S. Rosecrans	
9	OSCAR FALCINELLA & MIKE FALCINELLA	0
10	FRED FIESEL	0
11	MAXWELL C. KING	0
12	JAMES L. FITTINGER	0
13	*FLETCHER OIL COMPANY, a corporation	86.3
14	composed of D. S. Fletcher	
15	F. O. Fletcher	
16	Helen Fletcher O'Connell and	
17	Idaho Fidelity Corporation	
18	ROLLA FORD	0
19	FOX HILLS COUNTRY CLUB	0
20	TONY FRIETAS	0
21	W. J. FROGGE	0
22	one Sigmund S. Hockwold	
23	one Lionel S. Hockwold	12.5
24	HERBERT SAKAYE FUKUWA	0
25	A. O. FULLER	0
26	Helene M. Fuller	
27	ROBERT L. FULLIOVE	1.0
28	JOE GALDARISI	0
29	Brody Investment Company	
30	AMADOR GARCIA	0
31	Eva Garcia	
32	ARTHUR B. GARCIA	0
33	Arthur D. Garcia, sued as	
34	June Garcia	
35	JOSE H. GARCIA	0
36	GARDENA SYNDICATE NO. 2	0
37	GARDENA WATER SUPPLY COMPANY	0
38	GAY LAND COMPANY, LTD., a corporation	0
39	V. M. GERACOSIAN	0
40	one Stanley N. Lewis	
41	GEORGE F. GETTY, INC.	0

1	CAROLINA GIACIOMAZZI, sued as	0
	Mrs. C. Giacomagzi	
2	ALBERT GIANNI	0
3	AMANDA L. GILLINGHAM, sued as	0
4	Jane Doe 20	
	Floyd W. Gillingham, sued as	
5	(John Doe 24)	
	Josephine Gillingham, sued as	
6	(Jane Doe 21)	
7	FLORENCE R. GILLINGHAM	2.4
	Thora Pursche	
8	Nellie P. Smith	
	Anna M. Pursche	
9	MRS. MATEA GIMINEZ	0
10	LALLA D. GODDARD	0
11	Ralf Goddard	
12	WM. H. GOLDSMITH	0
	Cliff Ralph	
13	FELIPE GONZALEZ	34.3
14	Gabriela Gonzales	
15	T. B. GOOSSEN	0
16	WILLIAM W. GORDON, sued as	0
	John Doe Gordon	
17	BERTHA GOSS	0
18	one Property Management Corporation	
19	GEORGE GRANDE	0
20	JOHN GRANT	59.0
21	ISABELA GRANZ	380
	Andrew R. Joughin	
22	Minnie Joughin	
	George Riley Murdock, successor	
23	of Matilda J. Murdock	
	Lillian Murdock Sanborn, successor	
24	of Matilda J. Murdock	
	Emma J. Osborn	
25	Security-First National Bank, as	
	Trustee of Trust No. P 1734, sued as	
26	Farmers & Merchants National Bank of	
	Los Angeles, as Trustee John Joughin Tuttle	
27	(now Joughin Torrance Ranch)	
28	EDWARD I. GREEN, sued as	0
	E. J. Green	
29	one Florence D. Green	
30	PRICE W. GRESHAM	0
	Walter G. Gresham	
31	Comer J. Lewis	
	Voleta A. Lewis	
32		

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
	One Grace P. Warden	
13	RAYMOND R. HAILS	0
14	WALTER HAMMOND	0
15	one Contractor's Asphalt	
	Products Co.	
16	HANCOCK CHEMICAL COMPANY, a corporation	0
17	HARBOR CITY DEVELOPMENT COMPANY	0
18	R. B. HARDING	0
19	*ROY W. HARRIS	0
20	HARRIS PUMPING PLANT	0
21	Leesa Dombrowski	
22	Carl G. Pursche	
23	Anna M. Pursche	
24	Harry Krundick	
25	Anna Doherty	
	Mrs. Frank Cota	
	Holly Corporation, a corporation	
	Homer Bales and Ernest Haughton	
	dba and sued as Pursche Water Co.	
26	W. HASEGAWA	0
27	one Kauffman, Milton, Construction	
	Company, successor)	
28	C. R. HASKINS	0
29	FRED M. HAUT	0
	one Ivy H. Haut	
30	CITY OF HAWTHORNE	1882.0
31	CHARLES R. HAYES	0
32	one Robert W. Colby	
	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	
12	one Western Air Compressor Company	
13	T. E. HODNEFIELD	0
14	MARIE C. HOFFMAN	0
15	Los Angeles City School District, successor	
16	J. P. HOEPTNER	0
17	Ida B. Hoeptner	
18	one Jack I. Gantz	
19	one Lillian H. Gantz	
20	CLIFFORD HOLLIDAY	0
21	W. I. HOLLINGSWORTH	0
22	one Julius L. Jenkins	
23	one Evelyn M. Jenkins	
24	*HOLLYWOOD TURF CLUB, a corporation	282.0
25	WILBUR HORNSTRA	14.1
26	C. L. HUDSON	0
27	<del>Dismissed</del> G.F. HUGHES-TEEL-COMPANY-----	0
28	ARTHUR C. HURT	0
29	one Truman Enterprises, Inc.	
30	DON C. HADLEY	0
31	one D. W. Sleet	
32	one Virgie Sleet	
33	*CITY OF INGLEWOOD	4382.0
34	INGLEWOOD PARK CEMETERY ASSOCIATION, a corporation sued as Inglewood Park Mortuary Assoc.	0
35	YOSHI INOSE	0
36	one Seijiro Inose	
37	F. C. IRVINE	0

1	FRED IWATA	0
2	John Iwata	
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	0
10	A. P. Johnson Company sued as, Richard Roe Company One	
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	0
15	one Leon A. Carpenter and Darline N. Carpenter, successors	
16	JOSHUA-HENDY IRON WORKS	0
17	DORA A. KAHLER	0
18	OSCAR E. KARR	0
	Sherley Karr	
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	0
24	one Esther N. Lee	
25	JEANETTE B. KINCAID	0
26	one Fred F. Hoyt	
	one Yvonne A. Hoyt	
27	SARAH S. KING	0
	one Crawford Building Corporation	
28	JOHN KRAUSS	0
29	Dan E. Vail and Barbara M. Vail	
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
	H. W. Nielsen	
7	one Kenneth D. Durian	
8	J. E. NORMINGTON	0
9	NORTH AMERICAN AVIATION, INC.,	0
	a corporation	
10	NORTHROP AIRCRAFT INCORPORATED	38.15
11	WARREN J. OGLE	0
12	JACK ORESKOVICH	0
13	Harold Walsh	
	one Harold D. Walsh	
14	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
	a corporation	
20	PALISADES DEL REY WATER COMPANY	0
21	(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
	Apuleyo Villagomez	
32	sued as A. Villagomez	

1	PERRY SCHOOL DISTRICT OF LOS ANGELES	0
2	COUNTY	
3	WM. C. PETERSON	0
4	A. E. PHILLEO	0
5	PIONEER DRILLING COMPANY, a corporation	0
	one Southern Heater Corp.	
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	
11	Anna M. Pursche	
	one Guarantee Development Co.	
12		
13	CHARLES H. QUANDT, sued as	0
	Charles A. Quandt	
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	0
20	known as Elizabeth Edna Baker and	
	Josephine Eilers for whom	
21	Dominguez Estate Company has	
	been substituted	
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	0.7
26	Jeanette Avant, and also known as	
	Jeanette Heydenbeck	
27	Calvin Wilson	
	Edward E. Wilson, Jr.	
28	Harry R. Wilson	
	Harry R. Wilson and Jeanette	
29	Reifsnnyder, also known as Jeanette	
	Avant, as executors of the estate	
30	of Jeanette C. Wilson, deceased.	
	Harry R. Wilson and Jeanette	
31	Reifsnnyder, also known as Jeanette	
	Avant, as executors of the estate	
32	of Robert A. Wilson, deceased	

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	
26	George Nasim	
27	FLOYD H. SCHENK, JR.	0
	Cora A. Schenk	
28	KEITH W. SCHLAEGEL	13.6
29	Opal B. Schlaegel	
30	EDYTHE L. SCHLAEGETER	0
	one James Murakami	
31	C. SCHRECKENGAST	0
32	W. C. SCHULTZ	0

1	A. D. SEABACK	3.5
2	Ruth Seaback	
3	MARVIN SELOVER AND MARY ZWETTER	0
4	one Hitoshi Fujii	
5	one Toshije Fujii	
6	SENTOUS HOLDING COMPANY	0
7	L. M. SEPULVEDA	0
8	LOUIS M. SEPULVEDA AND SECURITY-FIRST NATIONAL BANK, as Trustees under the last will and testament of Roman D. Sepulveda, deceased	0.7
9	P. C. SERBIAN	0
10	Ruby H. Renfro	
11	W. H. SEWARD	0
12	one R. A. Watt Construction Co.	
13	JOHN SHAW	0
14	Phillip G. Shaw	
15	*CLYDE L. SHEETS	5.5
16	*SHELL OIL COMPANY	4516.0
17	J. M. SHEPHERD	0
18	JAMES W. SHIPMAN	0
19	one Osie R. Shipman	
20	SAM SHORT, sued as Sam Sciortino	0
21	ELDON B. SHURTLEFF	0
22	Marcelle Shurtleff	
23	one Barrett Development Corporation	
24	EDWARD ROY SIDEBOTHAM AND EDWARD SIDEBOTHAM & SON., INC., sued as Edward Sidebotham	0
25	MRS. MARY SILVA	0
26	one Norman A. Leiman	
27	JAMES SIOAN	0
28	A. H. SMITH	9.7
29	Sam Surber	
30	Freda Smith, sued as Jane Doe 9	
31	EUNICE P. SMITH	0
32	SOCONY MOBIL OIL COMPANY, INC. (Successor by merger to General Petroleum Corporation)	2570.0
33	SOUTH BAY UNION HIGH SCHOOL OF LOS ANGELES COUNTY, sued as Redondo Union High School District	0

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		
5	SOUTHWEST PROPERTIES, INC., a corporation	0
6	SOUTHWESTERN PORTLAND CEMENT COMPANY a corporation	0
7	one Chandler's 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. Violli	
23	TAKATOSHI TAMURA one State of California, successor	0
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	167.0
	Tide Water Associated Oil Company	
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
	one Elizabeth Miller Kolf	
12		
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. VOLIMER	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, one K. S. Senness	
11	one Charles W. Shepard	
12	BEN WESTON	0
13	A. K. WILSON LUMBER COMPANY, a corporation one Martin Bros. Box Company of California	0
14		3.4
15	FRANK WIRZ	0
16	WISEBURN SCHOOL DISTRICT	8.2
17	P. J. WITTSTROM	0
18	CORA B. WOOLLEY, sued as Cora B. Woolley	0
19	T. W. WOODLAND	0
20	WOODLAND CEMETERY ASSOCIATION	0
21	KATHERINE P. WOODMAN, sued as F. T. Woodman	3.7
22		
23	HENRY S. WOOLNER	0
24	MINNIE V. WREDEN one Golden Monroe Homes, Inc.	0
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

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 <sup>at</sup> 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 nece-  
3 ssary 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.



1           2. Parties hereto who have not entered their appearance or  
2     whose default has been entered and who are adjudged herein to  
3     have an Adjudicated Right, shall be served with all said future  
4     notices, papers and process herein by publication of a copy of  
5     such said notice, paper or process addressed to, "Parties to  
6     the West Basin Adjudication"; said publication shall be made  
7     once each week for two successive weeks in a newspaper of  
8     general circulation, printed and published in the County of  
9     Los Angeles, State of California, the last publication of which  
10    shall be at least two weeks and not more than five weeks immedi-  
11    ately preceding the event for which said notice is given or  
12    immediately preceding the effective date of any order, paper  
13    or process, in the event an effective date other than the date  
14    of its execution is fixed by the Court in respect of any order,  
15    paper or process, or said last publication shall be made not  
16    more than five weeks following an event, the entry of an order  
17    by the Court, or date of any paper or process with respect to  
18    which notice is given.

19           3. All parties not specifically referred to in sub-  
20    paragraphs 1 and 2 above who are required by law to be served  
21    with future notices, papers and/or process in this cause shall  
22    be served therewith in the manner provided by law.

23                               XV.

24           None of the parties hereto shall recover his costs as  
25    against any other party.

26  
27    Dated: August 18, 1961       /s/ George Francis  
28                                       Judge Assigned by the Chairman of  
29                                       the Judicial Council to Sit in  
30                                       This Case.  
31  
32

RECEIVED  
DEC 03 2014

STEPHANIE OSLER HASTINGS (State Bar No. 186716)  
RUSSELL M. McGLOTHLIN (State Bar No. 208826)  
JONATHAN C. SANDLER (State Bar No. 227532)  
BROWNSTEIN HYATT FARBER SCHRECK, LLP  
1020 State Street  
Santa Barbara, CA 93101  
Telephone (805) 963-7000; Fax: (805) 965-4333  
[shastings@bhfs.com](mailto:shastings@bhfs.com)  
[rmcglathlin@bhfs.com](mailto:rmcglathlin@bhfs.com)  
[jsandler@bhfs.com](mailto:jsandler@bhfs.com)

CONFORMED COPY  
ORIGINAL FILED  
Superior Court of California  
County of Los Angeles

DEC 05 2014

Sherri R. Carter, Executive Officer/Clerk  
By: Roxanne Arralga, Deputy

Attorneys for Defendant  
GOLDEN STATE WATER COMPANY

SUPERIOR COURT OF THE STATE OF CALIFORNIA  
FOR THE COUNTY OF LOS ANGELES

CALIFORNIA WATER SERVICE  
COMPANY, et al.,

Plaintiff,

vs.

CITY OF COMPTON, et al.,

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

21 East Carrillo Street  
Santa Barbara, CA 93101-2706

AMENDED JUDGMENT

## TABLE OF CONTENTS

	Page
I. EXISTENCE OF BASIN AND BOUNDARIES THEREOF .....	2
II. DEFINITIONS .....	3
III. DECLARATION OF RIGHTS - WATER RIGHTS ADJUDICATED .....	8
IV. TRANSFERABILITY OF RIGHTS .....	9
V. PHYSICAL SOLUTION – BASIN STORAGE, CARRYOVER, BASIN OPERATING RESERVE, AND EXCESS PRODUCTION .....	9
1. Determination of Available Dewatered Space .....	9
2. Basin Operating Reserve .....	10
3. Adjudicated Storage Capacity .....	11
4. Carryover .....	11
5. Individual Storage Allocations .....	12
6. Community Storage Pool .....	13
7. Regional Storage Allocation .....	14
8. Limitations on Storage .....	16
9. Extraction of Stored Water; Exemption from Replenishment Assessment .....	16
10. Space-Available Storage, Relative Priority, and Dedication of Abandoned Water .....	17
11. Water Augmentation .....	19
12. Storage Procedure .....	21
A. Storage Reporting and Monitoring .....	21
B. Application and Notification Procedure .....	22
C. Notice Process .....	24
13. Review/Approval Process .....	24
A. Projects Subject to Review .....	24
B. Hearing and Approval Process for Watermaster Review .....	25
C. Trial Court Review .....	27
14. Excess Production .....	27
VI. PHYSICAL SOLUTION - EXCHANGE POOL .....	28
1. Mandatory Offer to Exchange Pool .....	28
2. Basis of Offer to Exchange Pool; Redetermination of Offer by Water Rights Panel .....	28
3. Voluntary Offer to Exchange Pool .....	28
4. Price of Water Offered to Exchange Pool .....	29
5. Price Dispute Objection - Water Rights Panel Determination .....	29
6. Request for Water From Exchange Pool .....	29
7. Allocation of Exchange Pool Water by Water Rights Panel .....	30

# TABLE OF CONTENTS

(continued)

	Page
8. Exchange Pool Water Pumped Before Pumper's Own Right.....	31
9. Price and Payment for Water Released for Exchange Pool .....	31
VII. ADDITIONAL PUMPING ALLOWED UNDER AGREEMENT WITH WRD DURING PERIODS OF EMERGENCY .....	32
VIII. INJUNCTION .....	36
IX. LIMITATIONS UPON EXTRACTION; ORDER OF PRODUCTION .....	37
1. Limits on Extractions .....	37
2. Prioritization of Production.....	37
X. LOSS OF DECREED RIGHTS.....	38
XI. WATERMASTER .....	38
1. Appointment.....	38
2. Watermaster Constituents .....	39
A. Administrative Body .....	39
B. The Water Rights Panel .....	46
C. The Storage Panel .....	48
D. Capacity As Court-Appointed Watermaster .....	49
3. Limitations on Powers and Duties of the Watermaster and its Constituent Bodies.....	49
A. Use of Facilities and Data Collected by Other Governmental Agencies.....	49
B. Limitations on WRD's Leasing Authority .....	49
C. Wasted and Nonchargeable Production Authorized By Watermaster .....	49
D. Material Physical Harm.....	50
4. Appeal from Watermaster Decisions Other Than With Respect to Budget.....	51
XII. RESERVED AND CONTINUING JURISDICTION OF COURT .....	52
XIII. JUDGMENT MODIFICATIONS AND FURTHER ORDERS OF COURT .....	52
XIV. RESERVATION OF RIGHTS .....	52
XV. DESIGNEES OF PARTIES FOR FUTURE NOTICE AND SERVICE .....	53
XVI. INTERVENTION OF SUCCESSORS IN INTEREST AND NEW PARTIES.....	54
XVII. JUDGMENT BINDING ON SUCCESSORS .....	54
EXHIBIT A.....	56
EXHIBIT B .....	58
EXHIBIT C .....	65

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 Intervenor 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

**I. EXISTENCE OF BASIN AND BOUNDARIES THEREOF**

There exists in the County of Los Angeles, State of California, an underground water basin or reservoir known and hereinafter referred to as "West Coast Basin," "West Basin" or the "Basin," and the boundaries thereof are described as follows:

Commencing at a point in the Baldwin Hills about 1300 feet north and about 100 feet west of the intersection of Marvale Drive and Northridge Drive; thence through a point about 200 feet northeasterly along Northridge Drive from the intersection of Marvale and Northridge Drives to the base of the escarpment of the Potrero fault; thence along the base of the escarpment of the Potrero fault in a straight line passing through a point about 200 feet south of the intersection of Century and Crenshaw Boulevards and extending about 2650 feet beyond this point to the southerly end of the Potrero escarpment; thence from the southerly end of the Potrero escarpment in a line passing about 700 feet south of the intersection of Western Avenue and Imperial Boulevard and about 400 feet north of the intersection of El Segundo Boulevard and Vermont Avenue and about 1700 feet south of the intersection of El Segundo Boulevard and Figueroa Street to the northerly end of the escarpment of the Avalon-Compton fault at a point on said fault about 700 feet west of the intersection of Avalon Boulevard and Rosecrans Avenue; thence along the escarpment of the Avalon-Compton fault to a point in the Dominguez Hills located about 1300 feet north and about 850 feet west of the intersection of Central Avenue and Victoria Street; thence along the crest of the Dominguez Hills in a straight line to a point on Alameda Street about 2900 feet north of Del Amo Boulevard as measured along 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.



8. “*Basin Operating Reserve*” means a total of 49,100 acre-feet of Available Dewatered Space, unless otherwise modified in accordance with Section V.1.A herein, available for Basin operations as provided in Section V.2. The Basin Operating Reserve added to the Adjudicated Storage Capacity equals the amount of Available Dewatered Space.

9. “*Carryover*” is defined in Section V.4.

10. “*Carryover Conversion*” means the process of converting water properly held as Carryover into Stored Water.

11. “*CEQA*” refers to the California Environmental Quality Act, Public Resources Code § 21000 *et seq.* and its implementing regulations set forth at California Code of Regulations, Title 14, Chapter 3, which regulations shall be referred to herein as the “CEQA Guidelines.”

12. “*CEQA Review Document*” means the final Environmental Impact Report, Negative Declaration or Mitigated Negative Declaration, prepared by or on behalf of the lead agency under CEQA.

13. “*Community Storage Pool Allocation*” is defined in Section V.6.A.

14. “*Contributed Water*” means a specified amount of Stored Water that the person or entity who stores water agrees to not recapture and to allow to remain in the Basin.

15. “*Developed Water*” includes Imported Water and other non-native water supplies.

16. “*Existing Facilities*” means those facilities described in Exhibit C to this Amended Judgment as well as completed New Storage Facilities approved in accordance with this Amended Judgment.

17. “*Extraction*,” “*extractions*,” “*extracting*,” “*extracted*,” and other variations of the same noun and verb in either initial capital or all lower case, mean pumping, taking, diverting or withdrawing groundwater by any manner or means whatsoever from the West Coast Basin.

18. “*Individual Storage Allocation*” is defined in Section V.5.

19. “*Imported Water*” means water brought into the West Coast Basin area from a non-tributary source by a Party, and any predecessors in interest.

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.

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-

modate the priority use within a respective category of Adjudicated Storage Capacity, or WRD seeks to make use of its priority right to the Basin Operating Reserve to fulfill its replenishment function, the Storage Panel shall issue a notice to evacuate within ninety (90) days the respective category of Adjudicated Storage Capacity or Basin Operating Reserve. Within sixty (60) days after receipt of such a notice to evacuate, the Party with an Adjudicated Right receiving the notice may provide a written election to the Storage Panel that it will store its Stored Water in any other excess Available Dewatered Space first within the Adjudicated Storage Capacity, if available, and then if all Adjudicated Storage Capacity is being fully used for Stored Water, then within the Basin Operating Reserve, if available. The Party with an Adjudicated Right's Stored Water shall be deemed spilled and dedicated to the Basin in furtherance of replenishment of the Adjudicated Rights without compensation if the Party with an Adjudicated Right does not make a timely election or if there is no excess Available Dewatered Space. No Stored Water will be deemed so dedicated unless the cumulative quantity of water held as Stored Water in the Available Dewatered Space exceeds one hundred and twenty thousand (120,000) acre-feet in the West Coast Basin. Any dispute as to Stored Water threatening to be spilled or dedicated to the Basin shall be submitted to the Court pursuant to a motion by any Party to the dispute after to the expiration of sixty (60) days of the ninety-day period in the notice to evacuate.

B. A Party with an Adjudicated Right that seeks to convert the Stored Water held as Space-Available Storage to a more firm right, may in their discretion, contract for the use of another Party with an Adjudicated Right's Individual Storage Allocation, or may apply for approval of its request as a Regional Storage Project, or may add such water to the Community Storage Pool once space therein becomes available.

#### **11. Water Augmentation**

A. Physical and management actions of the Parties in consultation with WRD shall add to the long-term reliable yield of the Basin. Innovations and improvements in management practices that increase the conservation and maximization of the reasonable and beneficial use of water should be promoted. To the extent that Parties to the Amended Judgment 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.

12. **Storage Procedure**

A. Storage Reporting and Monitoring

The Administrative Body (defined below) shall: (i) prescribe forms and procedures for the orderly reporting of Stored Water and water from a Water Augmentation Project; (ii) maintain records of all water stored in the Basin; (iii) undertake the monitoring and modeling of Storage Projects, Water Augmentation Projects and New Storage Facilities required by this Judgment; and (iv) provide an accounting of Stored Water and/or water from a Water Augmentation Project within thirty (30) days of a written request by an Adjudicated Rights holder or a Party with rights to Stored Water. For purposes of Sections V.12 and V.13 of this Amended Judgment, Water Augmentation Project(s), New Storage Facilities and Storage Projects that require the approval of the Storage Panel shall collectively be referred to as "Projects."

B. Application and Notification Procedure

(1) Nothing in this Amended Judgment shall alter a Party's duty to comply with CEQA or any other applicable legal requirements as to any Project imposed by applicable law. Further, no action or approval under this Amended Judgment shall constitute a bar to a Party's duty to comply with CEQA or any other legal requirements as to any Project imposed by applicable law. However, a Party to this Amended Judgment who is undertaking or engaging in CEQA review for a Project that requires approval by the Storage Panel shall provide to the Watermaster copies of the notices required under CEQA to be provided to the public within the time periods proscribed by CEQA.

(2) For Projects that require review and approval by the Storage Panel, as provided in Section V.13, the Administrative Body shall provide appropriate applications, and shall work with Project applicant(s) to complete the application documents for presentation to the Storage Panel.

(3) The Administrative Body shall conduct the groundwater modeling necessary to support a Party's application for approval of a Project prior to the Storage Panel's hearing on said Project. Upon receipt of a notice of a lead agency's intention to prepare a CEQA 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

Administrative Body may rely on CEQA documentation, including the CEQA Review Document, for a Project for the information necessary to make a determination on Technical Feasibility and Material Physical Harm and not prepare any additional analyses if the CEQA documentation contains the necessary information for consideration of the Project including the groundwater modeling required by this Amended Judgment.

**C. Notice Process**

Within thirty (30) days after submission of the final and complete Project application documents (including the technical reports, CEQA Review Document and modeling results), the Administrative Body shall provide notice (either by electronic mail or U.S. postal mail), and access to copies of the final and complete application documents to all Parties to the Amended Judgment.

**13. Review/Approval Process**

**A. Projects Subject to Review**

(1) Storage Projects exempt from the review and approval process provided in this Section V.13 include:

- use of Total Adjudicated Production Rights, except for extraction above one hundred and twenty percent (120%) of a Party's extraction right, as set out in Section IX.1;
- replenishment of the Basin with Replenishment Water by WRD;
- WRD's operations within the Basin Operating Reserve;
- Carryover Conversion; and
- Use of Existing Facilities to store water in the Individual Storage Allocation or the Community Storage Pool.

(2) All other Projects shall be subject to review and approval, as provided in this Section V.13, including, but not limited to, those projects involving:

- material variances to substantive criteria governing projects exempt from the review and approval process;
- modifications to previously approved Projects and related agreements;



- a Party's proposal for Carryover Conversion in quantities greater than the express apportionment of Adjudicated Storage Capacity on a non-priority, space-available, interim basis, and
- any other means of storage not exempt by Section V.13.A(1).

B. Hearing and Approval Process for Watermaster Review

The following procedures shall be followed by the Watermaster where Storage Panel review is required or permitted under this Amended Judgment.

(1) No later than thirty (30) days after notice has been issued in accordance with Section V.12, the matter shall be set for hearing before the Storage Panel. A staff report shall be submitted by the Administrative Body in conjunction with the completed application documents, which report shall include proposed conditions of approval if the recommendation in the staff report is to approve the Project. The Water Rights Panel may prepare a separate independent staff report, if it elects to do so. Any Party to the Amended Judgment shall be entitled to submit its own report, and such report shall be considered by the Storage Panel as part of its review; however, a Party shall not be entitled to raise issues to the Storage Panel that it failed to raise as part of any previously completed CEQA process for the Project under consideration by the Storage Panel.

(2) Whenever feasible, the WRD Board of Directors and the Water Rights Panel shall conduct a joint hearing (i.e., the presumption shall be in favor of joint hearings). If a joint hearing is not held, the Water Rights Panel hearing shall be conducted in the manner prescribed for public agency hearings under the Brown Act.

(3) Factors to be considered in reviewing a Project include (i) facilities in the vicinity of the Project; (ii) proximity to drinking water wells and depths at which such wells are screened; (iii) depth at which water will be added under the Project; (iv) resulting groundwater elevations from the Project based on groundwater modeling conducted by the Administrative Body and, if they elect to do so, the Project proponent, (v) existing contamination, if any, in the vicinity of the Project; (vi) preferential groundwater pathways; (vii) the source of the water for the Project; and (v) information provided by any Party.

(4) The WRD Board of Directors and the Water Rights Panel shall each adopt written findings explaining their decision on the Project, although if both entities reach the same decision, they shall work together to adopt a uniform set of findings. The findings must include the evaluation of the factors identified in Section V.13.B(3) and a determination that the Project is Technically Feasible and will not cause Material Physical Harm.

(5) The Storage Panel shall not be required to conduct a hearing on a Project if it (i) reviews the CEQA Review Document adopted by a lead agency; (ii) the CEQA Review Document includes the groundwater modeling required under this Amended Judgment; (iii) determines that the CEQA Review Document evaluated the factors identified in Section V.13.B(3); and (iv) determines that the CEQA Review Document demonstrates that the Project is Technically Feasible and will not cause Material Physical Harm.

(6) Unless both the WRD Board of Directors and Water Rights Panel approve the Project, the application shall be deemed denied (a "Project Denial"), provided, however, that if either the WRD Board of Directors or the Water Rights Panel is unable to render a decision on the application due to a conflict of interest arising under Section V.13 (A)(8) of this Amended Judgment, then the application shall be deemed approved if the remaining body of the Storage Panel approves the application. If both the WRD Board of Directors and Water Rights Panel approve the Project, the Project shall be deemed approved (a "Project Approval").

(7) If the Storage Panel approves the Project, it may impose reasonable conditions of approval on matters relevant to the Project, which shall include mandatory conditions of approval including annual limits on the amount of Stored Water, annual extraction limits of Stored Water, and water quality standards. The WRD Board of Directors and the Water Rights Panel shall work together to adopt a uniform set of conditions of approval promulgated after adoption of the Rules pursuant to Section X.1(E) and following the same review and comment process set forth in Section XI.1(E).

(8) Neither WRD nor any member of the Water Rights Panel shall render any decision on Projects subject to Watermaster review under Section V.13 of this 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.

27 ///

28 ///

1 ///

2 ///

3 ///

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-feet (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.

(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

pursuant to the foregoing, the Water Rights Panel shall act upon the proposed budget within 15 calendar days after the public meeting. If the Water Rights Panel does not approve the budget prior to such deadline, the matter may be appealed to the Court within sixty (60) days.

(c) If any Party has any objection to the Administrative Budget, it shall present the same in writing to the Watermaster within fifteen (15) days after the date of mailing of said tentative budget by the Administrative Body. The Parties shall make the payments otherwise required of them to the Administrative Body even though an appeal of such budget may be pending. Upon any revision by the Court, the Administrative Body shall either remit to the Parties their pro rata portions of any reduction in the budget, or shall credit their accounts with respect to their budget assessments for the next ensuing Administrative Year, as the Court shall direct.

(d) The Administrative Body shall prepare and maintain financial statements and budgets in accordance with generally accepted accounting principles (GAAP) for state and local governments in order to meet this requirement. Audits will be conducted in accordance with generally accepted government auditing standards (GAGAS). The Administrative Body shall, each year after an audit is completed, certify within three (3) months after end of the Administrative Year that no expense was part of the budget or paid for by the budget contrary to the Amended Judgment.

(7) *Administrative Budget as Parties' Costs*

(a) The amount of the Administrative Budget to be assessed to each Party shall be determined as follows: If that portion of the final Administrative Budget to be assessed to the Parties holding an Adjudicated Right is equal to or less than twenty dollars (\$20.00) per said Party then the cost shall be equally apportioned among said Parties. If that portion of the final Administrative Budget to be assessed to said Parties is greater than twenty dollars (\$20.00) per said Party then each Party holding an Adjudicated Right shall be assessed a minimum of twenty dollars (\$20.00), the amount of revenue expected to be received through the foregoing minimum assessments shall be deducted from that portion of the final Administrative 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.

1 (2) *Requirement of Measuring Devices*

2 The Water Rights Panel shall require all parties owning or operating any facilities for the  
3 extraction of groundwater from West Basin to install and maintain at all times in good working  
4 order at such party's own expense, appropriate measuring devices at such times and as often as  
5 may be reasonable under the circumstances and to calibrate or test such devices.

6 (3) *Inspections by Watermaster*

7 Subject to compliance with all applicable laws protecting the disclosure of a party's  
8 confidential or proprietary information, the Water Rights Panel may make inspections of  
9 groundwater production facilities, including aquifer storage and recovery facilities, and  
10 measuring devices at such times and as often as may be reasonable under the circumstances and  
11 to calibrate or test such devices.

12 (4) *Reports*

13 The Water Rights Panel shall be responsible for reporting to the Court concerning  
14 Adjudicated Rights in the Basin, including any and all of the following:

- 15 • Groundwater extractions;  
16 • Exchange Pool operation;  
17 • Violations of this Amended Judgment and corrective action taken or sought;  
18 • Change of ownership of an Adjudicated Right;  
19 • Assessments made by the Water Rights Panel and any costs incurred;  
20 • Development of Material Physical Harm, or imminent threat of the development of Material  
21 Physical Harm; and  
22 • Recommendations, if any.

23 (5) *Assessment*

24 The Water Rights Panel shall assess holders of Adjudicated Rights within the West Coast  
25 Basin an annual amount not to exceed one dollar (\$1.00) per acre-foot of Adjudicated Rights, by  
26 majority vote of the members of the Water Rights Panel. The Water Rights Panel may assess a  
27 higher amount, subject to being overruled by Majority Protest. If an assessment is assessed in  
28 excess of one dollar (\$1.00) per acre-foot, the assessment shall only be applied for that

Administrative Year. The assessment is intended to cover any costs associated with any Amended Judgment enforcement action, the reporting to the Court pursuant to Section XI.2.B(1), and the review of Storage Projects as a component of the Storage Panel, as provided herein. It is anticipated that this body will rely on the Administrative Body's staff for most functions, but the Water Rights Panel may engage its own staff if required in its reasonable judgment and in accordance with the Watermaster Rules. The Water Rights Panel shall prepare and maintain financial statements and budgets in accordance with generally accepted accounting principles (GAAP) for state and local governments in order to meet this requirement. Every other year, the Water Rights Panel shall cause a Review of its Financial Statements by a certified public accountant. The Water Rights Panel shall, each year after a review is completed, certify within three (3) months after end of the Administrative Year that no expense was part of the budget or paid for by the budget contrary to the Amended Judgment. As a condition of approving a Regional Storage Project or a Water Augmentation Project, the Storage Panel will require any Party participating in such a Project who does not hold an Adjudicated Right to pay a reasonable portion of the Water Rights Panel's budget consistent with the amount of water that can be stored by the Regional Storage Project relative to the total amount of Adjudicated Rights.

(6) *Notices*

The Water Rights Panel shall, to the extent practical, hold regular meetings on a quarterly basis or more often as needed. Notices of meetings of the Water Rights Panel shall be provided as required under Section XI.2.A(2).

C. The Storage Panel

The Storage Panel of the Watermaster shall be a bicameral body consisting of (i) the West Coast Basin Water Rights Panel and (ii) the Board of Directors of WRD. Action by the Storage Panel shall require separate action by each of its constituent bodies provided, however, that action can be taken by each constituent body at a joint hearing. The Storage Panel shall have the duties and responsibilities specified with regard to the provisions for the storage and extraction of Stored Water as set forth in Section V and elsewhere within this Amended Judgment.

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.  
28

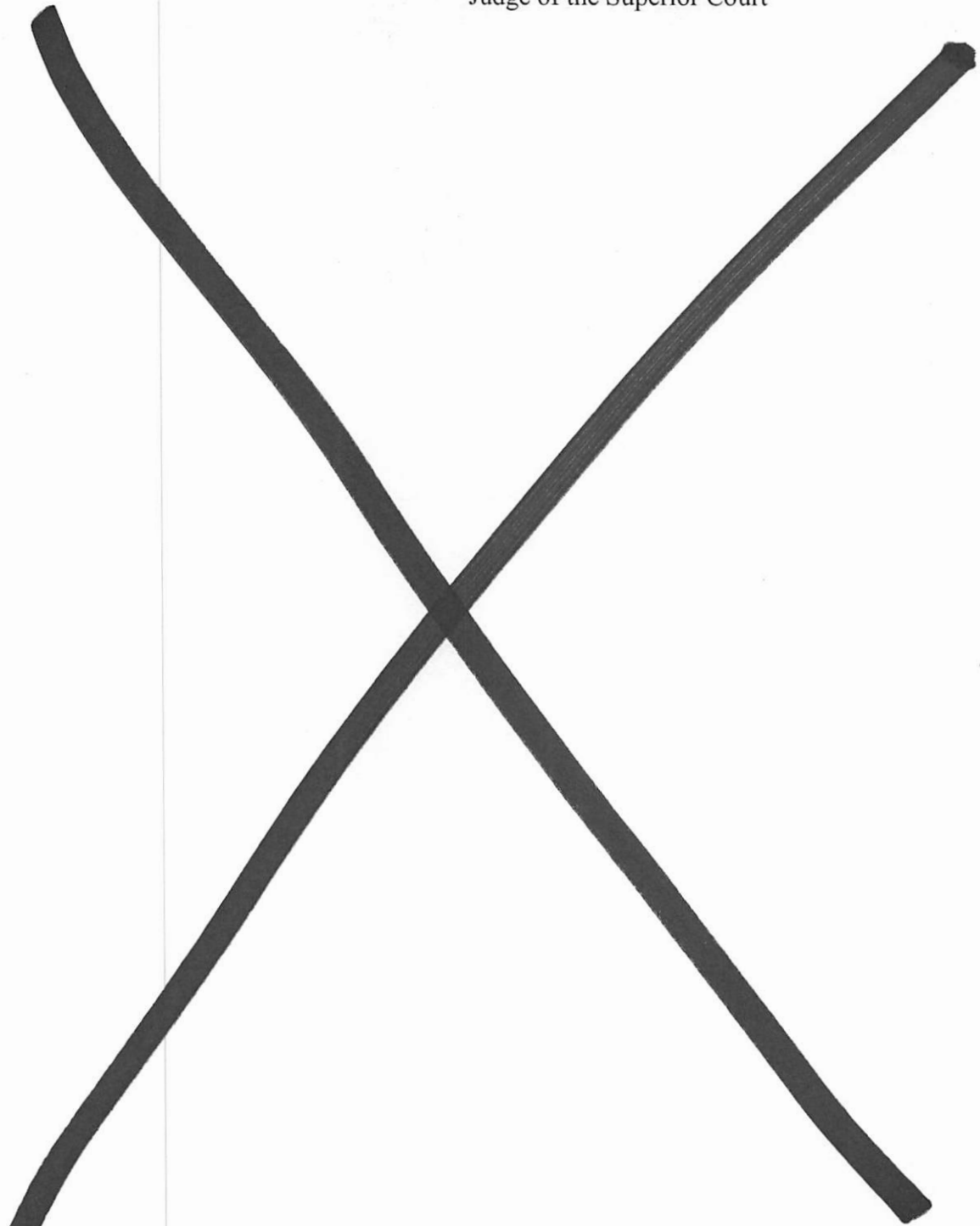
1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

THE CLERK WILL ENTER THIS AMENDED JUDGMENT FORTHWITH.

DATED: DEC 05 2014

KENNETH R. FREEMAN

Judge of the Superior Court



## **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

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
<b>West Coast Basin Total</b>		<b>64,468.25</b>

## **EXHIBIT B**



**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.

1           “Such right is exercisable without quantitative limit so long  
2 as Watermaster reasonably determines at the end of each fiscal year  
3 that the water produced from the Basin under such right is used in a  
4 closed system so that essentially all such produced water is returned  
5 without quality impairment, to the aquifer of the Basin from which  
6 the same was produced.

7  
8           “Annually, during the first two weeks of June in each  
9 calendar year, such nonconsumptive water right producer shall  
10 submit to Watermaster a verified statement as to the amount and  
11 nature of the then current uses of said nonconsumptive right for the  
12 next ensuing fiscal year, whereupon Watermaster shall either affirm  
13 the nonconsumptive nature of such use or petition the Court for  
14 instructions or an injunction prohibiting the exercise of such  
15 nonconsumptive right by said nonconsumptive right producer.

16  
17           “HUGHES AIRCRAFT COMPANY is the owner of a non-  
18 consumptive water right use in the Basin.

19  
20           “A nonconsumptive water right owner shall, at such party’s  
21 own expense, install and at all times maintain in good working  
22 order, mechanical measuring devices, approved by Watermaster,  
23 and keep records of water production and water returned to the  
24 Basin, as required by the Watermaster, through the use of such  
25 devices. The Watermaster may require such nonconsumptive use  
26 right party, at such party’s own expense, to measure and record not  
27 more often than once a month, the elevation of the static water level  
28 of his well.

1                   “Any nonconsumptive production of a party herein shall be  
2 considered in the total adjudicated rights of all parties herein for the  
3 purpose of sharing Watermaster’s fees as parties’ costs.

4  
5                   “Payment of his proportionate share of Watermaster fees,  
6 whether or not subject to adjustment by the Court as provided in  
7 Paragraph XII of the Judgment herein, shall be made by each such  
8 party, on or prior to the beginning of the fiscal year to which such  
9 final budget and statement of assessed cost is applicable. If such  
10 payment by any party is not made on or before said date, the  
11 Watermaster shall add a penalty of 5 percent thereof to such party’s  
12 statement. Payment required of any party hereunder may be  
13 enforced by execution issued out of the Court, or as may be  
14 provided by any order hereinafter made by the Court, or by other  
15 proceedings by the Watermaster or by any party hereto on the  
16 Watermaster’s behalf.

17  
18                   “Each nonconsumptive water right owner, its officers,  
19 agents, employees, successors and assigns, IS ENJOINED AND  
20 RESTRAINED from materially changing said nonconsumptive use  
21 at any time without first notifying Watermaster of the intended  
22 change of use, in which event Watermaster shall promptly petition  
23 the Court for instructions concerning the future exercise of such  
24 nonconsumptive use right.

25  
26                   “Defendant owner of said nonconsumptive right shall  
27 comply with and be subject to the rules and regulations of  
28 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

certain parcel of land in the Rancho Los Palos Verdes, in the city of Torrance, county of Los Angeles, state of California, allotted to Orin S. Weston by decree of distribution in the estate of B.S. Weston, recorded in book 2838 page 230 of Deeds, in the office of the county recorder of said county, and being the part 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:

Beginning at the southwest corner of that certain parcel of land conveyed to Standard Oil Company by deed dated December 18, 1925, recorded in book 5494 page 188 of Official Records of said Los Angeles County; thence South 62°SO'SO" East along the southerly boundary line of said land conveyed to Standard Oil Company 1718.60 feet, to the southeasterly corner of the land described in the deed to Pacific Semiconductors, Inc., a Delaware corporation, recorded May 1, 1961, as Instrument No. 1723, in book D 1206 page 131, Official Records, and the true point of beginning of this description; thence northerly, parallel with the westerly boundary line of said 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 southeasterly along the southwesterly boundary line of Lomita Boulevard 422.81 feet; thence southeasterly 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.

EXCEPT all oil, gas, asphaltum and other hydrocarbon substances and other minerals in or under said land or that may be produced therefrom, but with no right of entry upon or through the surface of or that portion of the subsurface lying 500 feet vertically in depth below the surface thereof.

Dated: September 24, 1981

[ Signature ]

Judge

**2. Nonconsumptive Use Practices:**

**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.

13  
14 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 Gaspar/200-Foot Sand and  
2 400-Foot Gravel  
3 At least one is a composite well, injecting into the Gaspar/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 Gaspar/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.