Errata Sheet for Minor Corrections to
Montebello Land and Water Company
2020 Urban Water Management Plan (UWMP)

This errata sheet logs minor content errors that were identified after final adoption of the *Montebello Land and Water Company* 2020 UWMP. DWR has determined that these corrections are minor and do not require the UWMP to be amended.

☒ These data errors have been corrected in the Department of Water Resources (DWR) UWMP database at https://wuedata.water.ca.gov/secure/

☒ This errata sheet has been filed with the UWMP in all locations where it is made publicly available, including the California State Library. Errata may be submitted to State Library via email to cslgps@library.ca.gov

Diann Pay, P.E.
AKM Consulting Engineers

On behalf of Montebello Land and Water Company

#	Description of Correction	Location	Rationale	Date Error Corrected
1	Stage 4 and 6 added to Table 8-2	Contingency Table 8-2	Address all 6 mandatory shortage levels	9/28/22
2	Table 8-3 was populated	Contingency Table 8-3	Address all 6 mandatory shortage levels. Stated that no action was taken.	9/28/22
3	Recalculated 2020 Population	System Description Table 3-1	DWR Population tool was utilized	9/28/22
4	Recalculated Actual 2020 gpcd	SB X 7-7 Baselines and Targets Table 5-2	Used recalculated 2020 Population	9/28/22
5	Updated method to determine population	SB X 7-7 Compliance Table 2: Method for Population Estimates	Selected DWR Population tool since the population was recalculated	10/11/22
6	Updated population to 25,263	SB X 7-7 Compliance Table 3: Service Area Population	Updated population per DWR population tool	10/11/22
7	Updated using population of 25,263	SB X 7-7 Compliance Table 5: Gallons Per Capita per Day (gpcd)	Updated due to change in population. New 2020 actual is 104 gpcd.	10/11/22
8	Updated using population of 25,263	SB X 7-7 Compliance Table 9: 2020 Compliance	Updated due to change in population. New 2020 actual is 104 gpcd.	10/11/22
9	Updated using population of 25,263	Text and Table 5-6 on page 5-4 or the UWMP Report. See below for text changes.	Updated due to change in population. New 2020 actual is 104 gpcd.	10/11/22

Modified Tables due to 2020 population recalculation using DWR population tool

Submittal Table 3-1 Retail: Population - Current and Projected						
Population Served	2020	2025	2030	2035	2040	2045*(opt)*
	25,263	25,517	25,772	26,026	26,281	26,535
NOTES: Used DWR Population tool for 2020 estimate. This was 39% of the SCAG estimate for the City of Montebello (August 2020). Used 39% of SCAG Projection for the City of Montebello for 2045. Assumed a linear increase for the intermediary years.						

Submittal Table 5-2: 2020 Compliance From SB X7-7 2020 Compliance Form				
2020 GPCD				
Actual 2020 GPCD*	**2020 TOTAL Adjustments***	**Adjusted 2020 GPCD* *(Adjusted if applicable)***	**2020 Confirmed Target GPCD***	**Did Supplier Achieve Targeted Reduction for 2020? Y/N**
103.9			*119.5*	*Yes*
**All cells in this table should be populated manually from the supplier's SBX7-7 2020 Compliance Form and reported in Gallons per Capita per Day (GPCD)*				
NOTES:				

Modified Section of the 2020 Urban Water Management Plan Report

5-7 2020 Compliance Daily Per Capita Water Use

The CWC mandates that retail water suppliers meet their Water Use Target by December 31, 2020. In 2019-2020, the Company's gross water use was 2,940 AF for a service are population estimated at 25,263. Therefore, the Company's actual 2020 per capita water use was 103.9 GPCD which is approximately 13 percent below its Confirmed Water Use Target of 119.5 GPCD. The Company's compliance with the 2020 Confirmed Target is summarized in Table 5-6. No adjustments using weather normalization, economic adjustment, or extraordinary events were applied to the GPCD.

Table 5-6
2020 Compliance

Submittal Table 5-2: 2020 Compliance From SB X7-7 2020 Compliance Form				
2020 GPCD				
Actual 2020 GPCD*	2020 TOTAL Adjustments*	Adjusted 2020 GPCD* *(Adjusted if applicable)*	2020 Confirmed Target GPCD*	Did Supplier Achieve Targeted Reduction for 2020? Y/N
103.9			*119.5*	*Yes*
**All cells in this table should be populated manually from the supplier's SBX7-7 2020 Compliance Form and reported in Gallons per Capita per Day (GPCD)*				
NOTES:				

DEPARTMENT OF WATER RESOURCES
P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

October 12 2022

Korey Bradbury
General Manager
344 E Madison Avenue
Montebello, CA 90640

RE: Urban Water Management Plan Requirements Addressed

Dear Korey Bradbury

The Department of Water Resources (DWR) has reviewed the 2020 Urban Water Management Plan (UWMP) for the Montebello Land and Water Company and finds that the UWMP has addressed the requirements of the California Water Code (CWC). The results of the review will be provided to DWR's Financial Assistance Branch.

The CWC directs DWR to report to the legislature once every five years on the status of submitted UWMPs. In meeting this legislative reporting requirement, DWR reviews all submitted UWMPs. DWR's review of plans is limited to assessing whether suppliers have addressed the required legislative elements and does not evaluate or analyze the supplier's UWMP data, projections, or water management strategies.

If you have amended the 2020 UWMP and/or the 2020 Water Shortage Contingency Plan since the submittal of the original documents(s), you must submit the amended document(s) to the DWR WUE data portal. Please contact DWR at UWMPhelp@water.ca.gov so that we can assist you in the process of this submittal. As stated in Water Code Sections 10640 and 10642, please note that amendments must have:

- 60-day notification
- Public notification
- Public hearing
- Adoption by the supplier's governing body. Documentation of the adoption must be included with the submittal.

If you have any questions regarding the review of the UWMP or urban water management planning, please contact me.

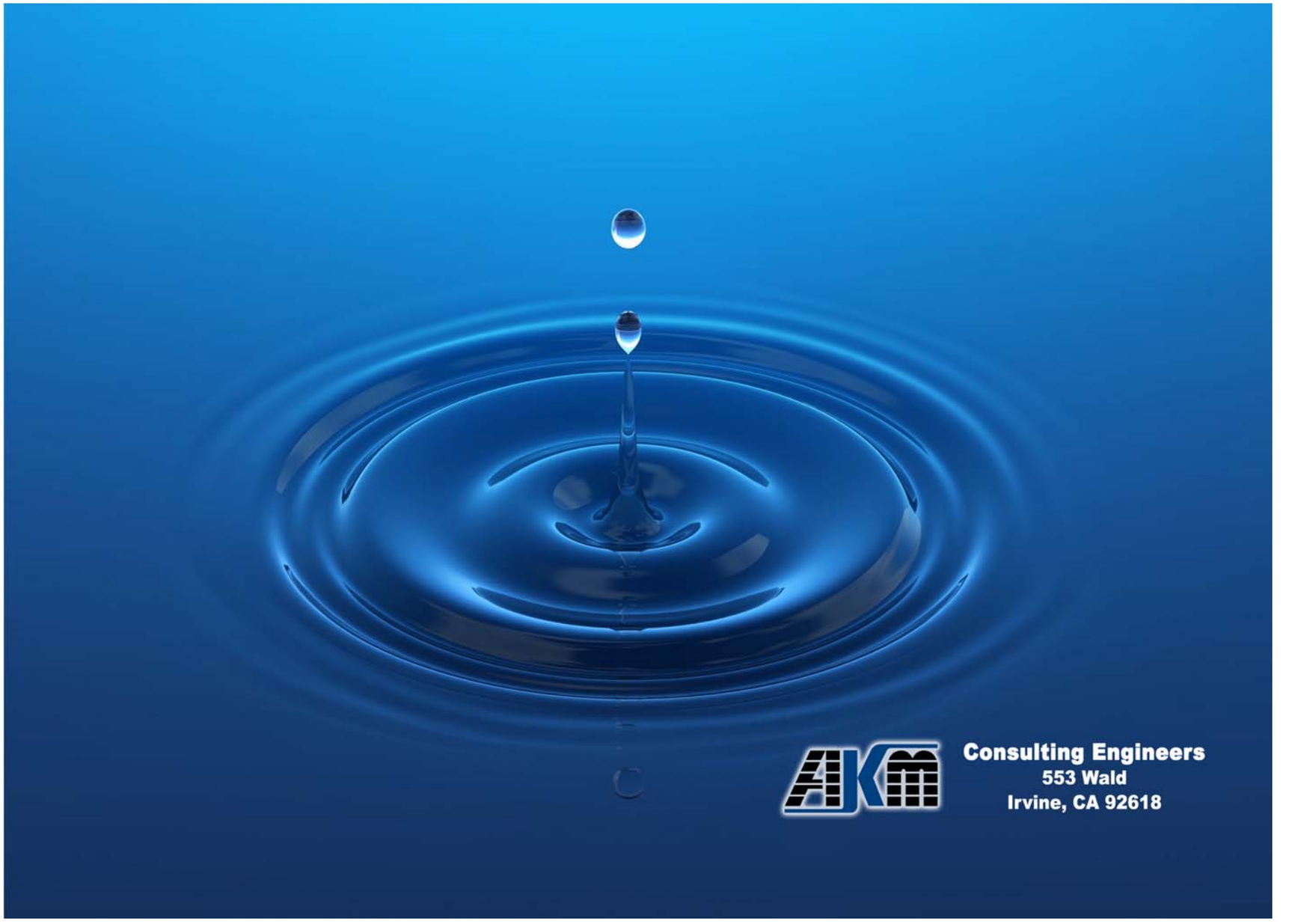
Sincerely,

Julie Ekstrom, Ph.D.
Supervisor, Urban Unit
Water Use Efficiency Branch
(916) 612-4371

Electronic cc:
Diann Pay

MONTEBELLO
Land and Water Company
Established 1900

2020 Urban Water Management Plan



Consulting Engineers
553 Wald
Irvine, CA 92618

MONTEBELLO LAND AND WATER COMPANY

2020 URBAN WATER MANAGEMENT PLAN

Submitted to

MONTEBELLO LAND AND WATER COMPANY
344 East Madison Avenue
Montebello, CA 90640

Submitted by

AKM CONSULTING ENGINEERS
553 Wald
Irvine, California 92618

August 2021



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References

[CA, 2013] Superior Court of the State of California for the County of Los Angeles, *Case No. 786,656 Third Amended Judgment (Declaring and establishing water rights in Central Basin),* December 2013

[IRWMR, 2013] Leadership Committee of the Greater Los Angeles County Integrated Regional Water Management Region, *Greater Los Angeles County Integrated Regional Water*

[SCAG, 2020] Southern California Association of Governments*, Demographics and Growth Forecast,* September 2020

[WRD, 2016] Water Replenishment District of Southern California, *Groundwater Basins Master Plan*, September 2016, prepared by CH2M Hill and RMC

[WRD, 2020] Water Replenishment District of Southern California, *Watermaster Service in the Central Basin – Los Angeles County (July 1, 2019 – June 30, 2020),* November 2020, prepared by the Administrative Body

[WRD, 2021] Water Replenishment District of Southern California, *Regional Groundwater Monitoring Report Water Year 2019-2020 for Central and West Coast Basins*, March 2021, prepared by WRD

SECTION 1
INTRODUCTION

1-1 Background and Purpose

The Urban Water Management Planning Act was originally passed in 1983 and became effective on January 1, 1984. The Act requires that urban water suppliers submit an Urban Water Management Plan (UWMP) to the State of California (State) once approximately every five (5) years. California Water Code (CWC) §10610 through §10657 details the information that must be included in the UWMP as well as who must file them.

A water agency is defined as an "urban water supplier", either publicly or privately owned, if it provides water for municipal purposes either directly or indirectly to more than 3,000 end users or supplies more than 3,000 acre-feet of potable water annually. Montebello Land and Water Company (Company) is considered an urban "retail" water supplier with over 3,000 retail customers.

The UWMP provides a framework for long term water planning and informs the public of a supplier's plans for long-term resource planning that ensures adequate water supplies for existing and future demands. The UWMP should address and evaluate these water-planning fundamentals:

- Current and future water use;
- Potable and non-potable water supplies;
- Water supply sources;
- Water supply reliability;
- Drought Risk Assessment (DRA);
- Water Shortage Contingency Plan (WSCP)

The Senate Bill X7-7 (SB X7-7), the Water Conservation Act of 2009 was signed into law in November 2009. This legislation required urban retail water suppliers to set Urban Water Use Targets for 2015 and 2020 so that a 20 percent statewide reduction in urban per capita water use could be met by 2020. Urban retail water suppliers are required to develop their water use targets and submit an Urban Water Management Plan in order to qualify for state grants and loans.

There were numerous additional requirements passed by the Legislature for the 2020 UWMPs. The major new requirements are as follows:

1. **Five Consecutive Dry-Year Water Reliability Assessment** – analyze the reliability of water supplies to meet water use over an extended drought period

2. **Drought Risk Assessment** – assess water supply reliability over a five-year period from 2021 to 2025

3. **Seismic Risk** – address seismic risk to various water system facilities and provide a mitigation plan

4. **Energy Use Information** – include readily obtainable information on estimated amounts of energy for water supply extraction, treatment, distribution, storage, conveyance, and other water uses.

1. **Water Loss Reporting for Five Years** – include the past five years of water loss audit reports

2. **Water Shortage Contingency Plan** – include a water shortage contingency plan with specific elements

3. **Groundwater Supplies Coordination – consistency with Groundwater Sustainability Plans (GSP) if available**

4. **Lay Description** – include a lay description of the fundamental determinations of the UWMP, especially regarding water service reliability, challenges ahead, and strategies for managing reliability risks

A copy of the 2020 UWMP Checklist can be found in Appendix 1-1.

1-2 Lay Description

Water service reliability is dependent on having enough high quality water supplies to meet future demands. Details of future water demands and available water supplies are described in this 2020 UWMP.

The Company's service area is not expected to experience large increases in additional residences or population. The water demands have remained relatively constant over the past five years since the permanent water conservation measures became well established in the service area.

The Company does not rely on imported water supplies but is instead completely reliant on local supplies through the acquisition of leased groundwater rights in the Central Basin, pumping credits, and implementation of an ongoing rehabilitation and improvement program. The Company intends to remain reliant on groundwater into the future with connections to neighboring agencies as an emergency supply. Replenishment of Central Basin is also solely reliant on local sources: recycled water and local runoff.

The Water Replenishment District (WRD) publishes an annual Regional Groundwater Monitoring Report for the Central and West Coast Basins. Per the 2019-2020 report, the groundwater quality in Central Basin is generally of "good quality and is suitable for use by the pumpers in the District, the stakeholders, and the public. Groundwater from localized areas with marginal to poor water quality can still be utilized but may require treatment prior to being used as a potable source". The Company has detected PFAS within some of its wells and is in the process of designing treatment facilities to meet the State and Federal regulations. Groundwater quality is not expected to be a constraint on groundwater as a source of water in the future.

Based on analysis of historical rainfall data and associated demands, the Company anticipates that there will be a surplus of supply during all average years, single dry years, and multiple dry year scenarios (up to 5 years). No drastic action is expected to be needed as long as typical water supplies are available.

The drought risk assessment (DRA) is an evaluation that assumes the occurrence of a drought over a 5 year time period. Climate change may not significantly reduce supply in Central Basin, but demands in the Greater Los Angeles County (GLAC) Region are predicted to increase due to increased temperatures, especially because potable water is still used for irrigation purposes. This in turn could place a larger demand on the groundwater supplies that are available.

In order to account for this possibility, the Company used a lower annual lease value of 900 AF instead of 1,670 AF in its DRA evaluation. The average lease amount over the last 5 years was 900 AF. Using this lease value caused a deficit up to 8 percent in the last year of the DRA which may trigger the declaration of a Stage 1 Water Shortage Condition per the Water Shortage Contingency Plan (WSCP). If there is more water supply available to lease, the Company will have enough supply to meet the demands during the drought years.

SECTION 2
PLAN PREPARATION

2-1 Basis for Preparing Plan

Montebello Land and Water Company's (Company) 2020 Urban Water Management Plan (UWMP) has been prepared to conform to California Water Code (CWC) Division 6, Part 2.6: Urban Water Management Planning. CWC §10610 through §10657, known as the Urban Water Management Planning Act (Act).

Originally enacted in 1983, the Act requires that every urban water supplier (providing water for municipal purposes to more than 3,000 end users or supplying more than 3,000 acre-feet of water annually) prepare and adopt an UWMP. The Act requires urban water suppliers to prepare plans that describe and evaluate reasonable and practical efficient water uses, recycling and conservation activities. These plans are to be filed with the California Department of Water Resources (DWR) every five years

2-2 Public Water System and Plan Identification

The Company meets the reporting threshold of 3,000 or more end users or 3,000 acre-feet (AF) of water supplied. As shown in Table 2-1, the Company delivered 2,940 AF of water to 4,076 municipal connections in 2020. Table 2-2 documents the Company's choice to prepare an individual plan for its 2020 UWMP. The Company is not a part of a Regional Alliance or member of a Regional Urban Water Management Plan (RUWMP).

Table 2-1
Public Water System

Submittal Table 2-1 Retail Only: Public Water Systems			
Public Water System Number	**Public Water System Name**	**Number of Municipal Connections 2020**	**Volume of Water Supplied 2020 ***
CA1910091	Montebello Land and Water Company	4,076	2,940
	TOTAL	**4,076**	**2,940**
**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*			
NOTES:			

Table 2-2
Plan Identification

Submittal Table 2-2: Plan Identification			
	Type of Plan		Name of RUWMP or Regional Alliance
☑	**Individual UWMP**		
	☐	Water Supplier is also a member of a RUWMP	
	☐	Water Supplier is also a member of a Regional Alliance	
☐	**Regional Urban Water Management Plan (RUWMP)**		
NOTES:			

2-3 Reporting Year and Units of Measure

All of the Company's water demand and supply data in this document is reported in fiscal years and the units of measure are in acre-feet (Table 2-3).

Table 2-3
Supplier Identification

Submittal Table 2-3: Supplier Identification	
Type of Supplier	
☐	Supplier is a wholesaler
☑	Supplier is a retailer
Fiscal or Calendar Year	
☐	UWMP Tables are in calendar years
☑	UWMP Tables are in fiscal years
If using fiscal years provide month and date that the fiscal year begins (mm/dd)	
7/1	
Units of measure used in UWMP *	
Unit	AF
**** Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*	
NOTES:	

2-4 Coordination with Wholesale Agencies

The Company does not rely on a wholesale agency for a source of water. The Company's only source of water is adjudicated groundwater from the Central Groundwater Basin and groundwater lease agreements with neighboring agencies. The Company is a retail water supplier and has an annual adjudicated groundwater right of 1,829 AF within the Central Groundwater Basin.

2-5 Coordination with Other Agencies

The Company notified the City of Montebello and the County of Los Angeles that the 2020 UWMP was being prepared. As required by California Water Code (CWC) §10621, these notifications were sent out more than 60 days before the public hearing for the 2020 UWMP.

SECTION 3
SYSTEM DESCRIPTION

This section provides an overview of Montebello Land and Water Company's (Company) service area, including the water distribution system, climate and population. It also provides context for the remainder of the UWMP by introducing characteristics of the service area relevant to water resources planning.

3-1 General Description

The Company's potable water system was originally developed by William Mulholland and incorporated on February 10, 1900. The Company was originally organized for the purpose of supplying the Montebello Tract of 1,250 acres with water. Originally an agricultural community, Montebello boasted having the ideal climate, productive soil, and an abundance of water. Around the turn of the century and through the 1920's, the area was famed for its production of flowers, vegetables, berries, and fruits. The discovery of oil by Standard Oil Company in 1917 brought about a revolutionary change to the Montebello Land and Water Company. The agricultural hills soon became a major contributor to oil production in the state of California. Today, the oil production is gone and the oil wells have been replaced with urban development.

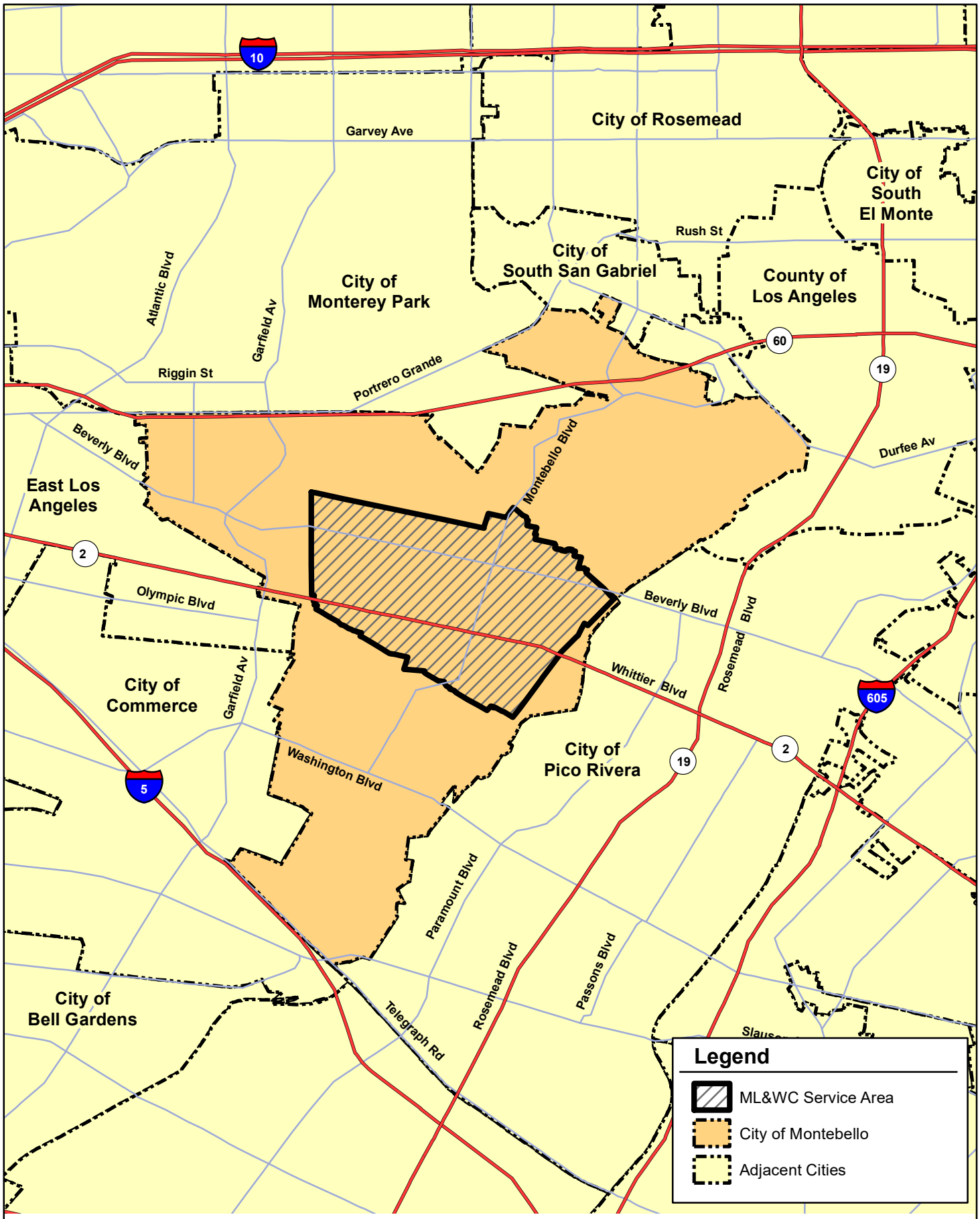
Today the Company is governed by a five member Board of Directors who are elected by the stock holders. Each Director serves a one-year term and then is up for re-election by the stock holders. Each consumer of water who is an owner of property within the service territory of the Company is required to own at least a fractional share of the Company stock, or to be a lessee of such an owner, except City, State, and Federal Government, and other Public agencies. All proceeds are used to obtain water and maintain the Company's water system infrastructure for the benefit of all shareholders. The entire system of the Company is under the supervision of the General Manager, subject to the policies of the Board of Directors. The Board of Directors guides the mission and policy of the Company.

The Company's only water source is groundwater from the Central Groundwater Basin. It has adjudicated annual rights to 1,829 AF of groundwater. The Company enters into lease agreements with other agencies, private companies, and individuals who have adjudicated water rights in the Central Groundwater Basin to meet annual water demands.

3-2 Service Area

The Company's potable water service area is located in the central portion of the City of Montebello, within the County of Los Angeles as shown on Figure 3-1. The City of Montebello covers approximately 8.4 square miles of the southwestern area of the San Gabriel Valley, approximately 8 miles east of downtown Los Angeles. It is bordered to the north by the Cities of Monterey Park and South San Gabriel and the County of Los Angeles, to the southeast by the City of Pico Rivera, and to the southwest by East Los Angeles and the City of Commerce. The Company service area occupies 1,187 acres which is approximately 22 percent of the land within the City of Montebello.

The Company's service area can be accessed by several major Southern California highways. The San Gabriel River Freeway (I-605) is located to the east and the Santa Ana Freeway (I-5) is located to the south. State Route 2 (Whittier Blvd) extends east and west through the service area.


10
Garvey Ave
City of Rosemead
City of South El Monte
Rush St
City of South San Gabriel
County of Los Angeles
Atlantic Blvd
Garfield Av
City of Monterey Park
Riggin St
Portrero Grande
60
19
Beverly Blvd
Montebello Blvd
Durfee Av
East Los Angeles
2
Olympic Blvd
Beverly Blvd
Rosemead Blvd
Whittier Blvd
605
City of Commerce
Garfield Av
Washington Blvd
City of Pico Rivera
19
2
5
Paramount Blvd
Rosemead Blvd
Passons Blvd
Telegraph Rd
City of Bell Gardens
Legend
ML&WC Service Area
City of Montebello
Adjacent Cities
N
0 0.225 0.45 0.9
Miles
Montebello Land & Water Company
PROJECT NO: 0521726.00
DATE: May 2021
Montebello Land and Water Company
Urban Water Management Plan
Location Map
Figure 3-1

3-3 System Description

The Company's existing potable water system consists of the following elements:

- One (1) open pressure zone and one (1) closed pressure zone
- Approximately 31 miles of pipeline, 2-inches through 24-inches in diameter
- 3 MG Reservoir
- Reservoir Booster Pump Station (~3,400 gpm)
- 6th Street Booster Pump Station (~1,000 gpm)
- 7 active water production wells
- 460 fire hydrants
- 4,076 service connections
- 10 emergency interconnections with adjacent agencies

The Company's water system is two pressure zones. Seven (7) active wells pump water from Central Basin into the lower pressure zone which is an open zone with a 3 MG storage reservoir. The Reservoir Booster Pump Station pumps water into the boosted pressure zone. The 6th Street Booster Pump Station is used to boost pressures in the local area if needed. The existing potable water system is shown on Figure 3-2.

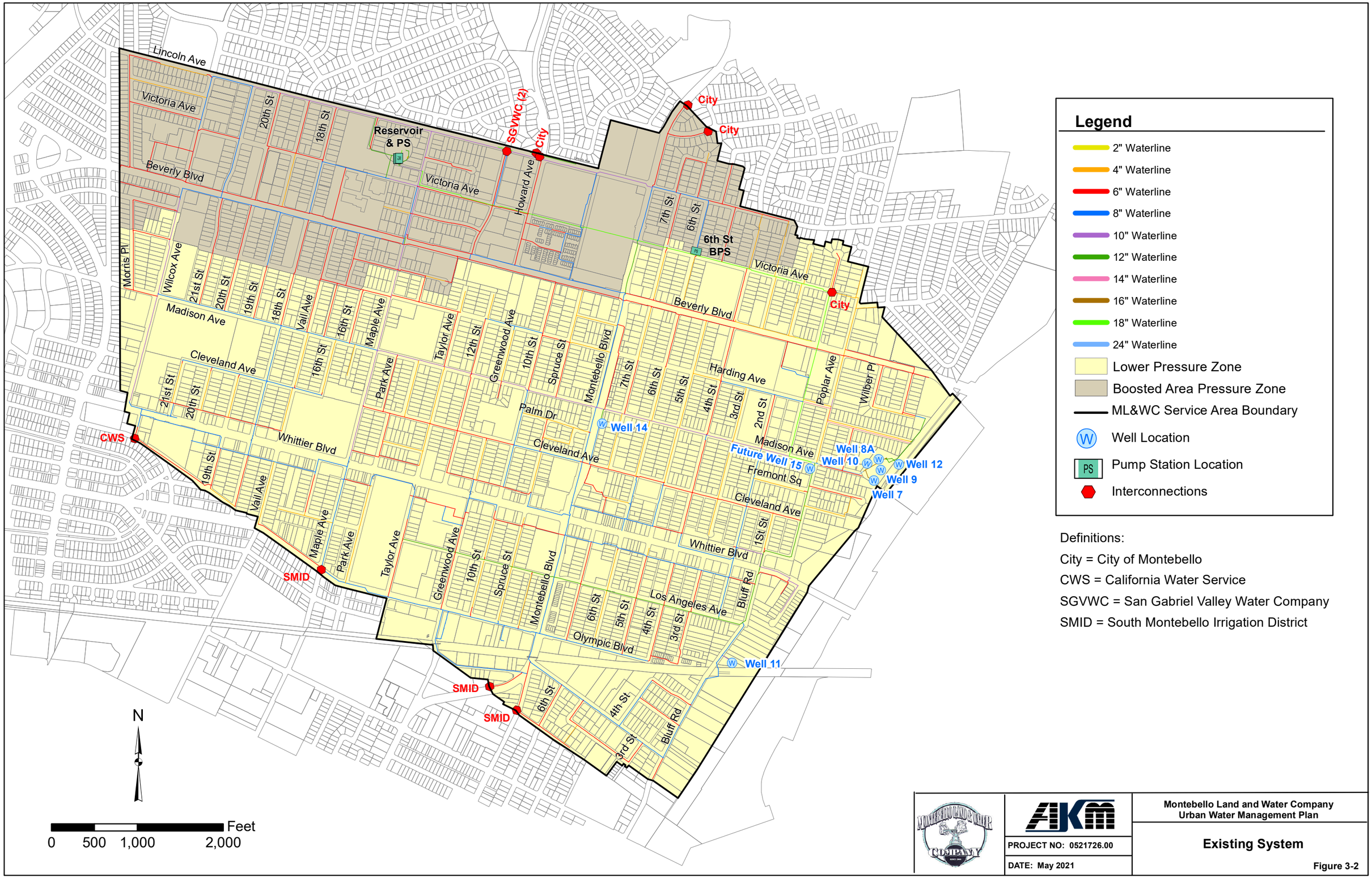
3-4 Climate

The Company's service area typically experiences a Mediterranean climate with warm, dry summers and mild winters. It lies in the heart of Southern California's coastal plain where it benefits from cool ocean breezes and the marine cloud layer, keeping the average maximum temperature about 79.1°F. Average annual precipitation for the area has historically been about 14.8 inches, with most precipitation occurring between the months of November to April. Table 3-1 provides information on average minimum and average maximum temperatures, average precipitation, and average evapotranspiration (ETo) for the Company's service area using data from the Western Regional Climate Center Montebello Station and the California Irrigation Management Information System (CIMIS) Long Beach Station.

Table 3-1
Service Area Climate

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max Temp (F°)[1]	69.4	71.1	72.9	77.6	79.4	83.7	88.5	89.7	87.9	82.6	75.4	70.8	79.1
Average Min Temp (F°)[1]	47.8	48.9	50.4	53.2	57.2	60.8	64.2	65.2	63.6	58.3	51.4	47.2	55.7
Average Total Precipitation (in)[1]	3.7	3.6	2.8	0.8	0.2	0.1	0.0	0.0	0.2	0.3	1.3	1.9	14.8
Average Eto (in)[2]	2.34	2.94	3.34	4.06	5.96	5.26	6.62	6.31	4.66	3.51	2.44	2.22	49.66

[1]Western Regional Climate Center - Montebello, California Station (045790) Period of Record 1/1/79 to 2/26/11
[2]California Irrigation Management Information System, 2020, Station ID: 174, Station Name: Long Beach



Legend

- 2" Waterline
- 4" Waterline
- 6" Waterline
- 8" Waterline
- 10" Waterline
- 12" Waterline
- 14" Waterline
- 16" Waterline
- 18" Waterline
- 24" Waterline
- Lower Pressure Zone
- Boosted Area Pressure Zone
- ML&WC Service Area Boundary
- Well Location
- Pump Station Location
- Interconnections

Definitions:

City = City of Montebello

CWS = California Water Service

SGVWC = San Gabriel Valley Water Company

SMID = South Montebello Irrigation District

Montebello Land and Water Company
Urban Water Management Plan

Existing System

PROJECT NO: 0521726.00

DATE: May 2021

Figure 3-2

More recent rainfall data collected by the Los Angeles County Department of Public Works (LACPW) is shown in Table 3-2. The annual amount of rainfall varies dramatically from year to year. The average rainfall from 2000 to 2019 was 11.10 inches, ranging from 2.58 inches to 28 inches per year. The driest year in the last 20 years occurred in 2006-2007, when only 2.58 inches of rainfall was recorded. The driest five years in the last 20 years was from 2011-2012 to 2015-2016, when the total rainfall was 33.24 inches. The state of California declared a Drought State of Emergency on January 17, 2014. The drought was declared at an end on April 7, 2017 after the driest four year period on record.

Table 3-2
Service Area Rainfall

Water Year (Oct. 1-Sept. 30)	Precipitation (inches)	LACPW Station ID[1]	LACPW Station Name	5 Year Total
2000-2001	14.67	1114B	Whittier Narrows Dam	-
2001-2002	4.65	1114B	Whittier Narrows Dam	-
2002-2003	17.60	1114B	Whittier Narrows Dam	-
2003-2004	11.38	1114B	Whittier Narrows Dam	
2004-2005	32.70	1114B	Whittier Narrows Dam	81.00
2005-2006	13.28	1114B	Whittier Narrows Dam	79.61
2006-2007	4.40	1114B	Whittier Narrows Dam	79.36
2007-2008	14.67	1114B	Whittier Narrows Dam	76.43
2008-2009	11.15	1114B	Whittier Narrows Dam	76.20
2009-2010	17.03	1114B	Whittier Narrows Dam	60.53
2010-2011	20.26	1114B	Whittier Narrows Dam	67.51
2011-2012	10.81	1114B	Whittier Narrows Dam	73.92
2012-2013	8.13	1114B	Whittier Narrows Dam	67.38
2013-2014	4.83	1114B	Whittier Narrows Dam	61.06
2014-2015	9.26	1114B	Whittier Narrows Dam	53.29
2015-2016	7.18	1114B	Whittier Narrows Dam	40.21
2016-2017	20.70	1114B	Whittier Narrows Dam	50.10
2017-2018	4.63	1114B	Whittier Narrows Dam	46.60
2018-2019	20.61	1114B	Whittier Narrows Dam	62.38
2019-2020		1114B	Not Available yet	
Minimum	**4.40**			
Average	**13.05**			
Maximum	**32.70**			

[1]Los Angeles County Department Public Works ALERT Rainfall Station ID

3-5 Land Use

The land use information used in preparation of the Urban Water Management Plan is primarily based on GIS parcel land use data, the City's zoning map, and aerial photography. A summary of the City's total existing land uses is provided in Table 3-3. The Company's service area occupies approximately 22 percent of the City's total area.

The land uses within the study area are shown on Figure 3-3. About 64 percent of the service area is made up of residential land uses. The remaining land uses are commercial, industrial, public uses, and open space. The service area is essentially built-out with no room for new large developments. The anticipated increase in population is expected to come from small infill projects and/or redevelopment projects.

Table 3-3
Service Area Existing Land Use

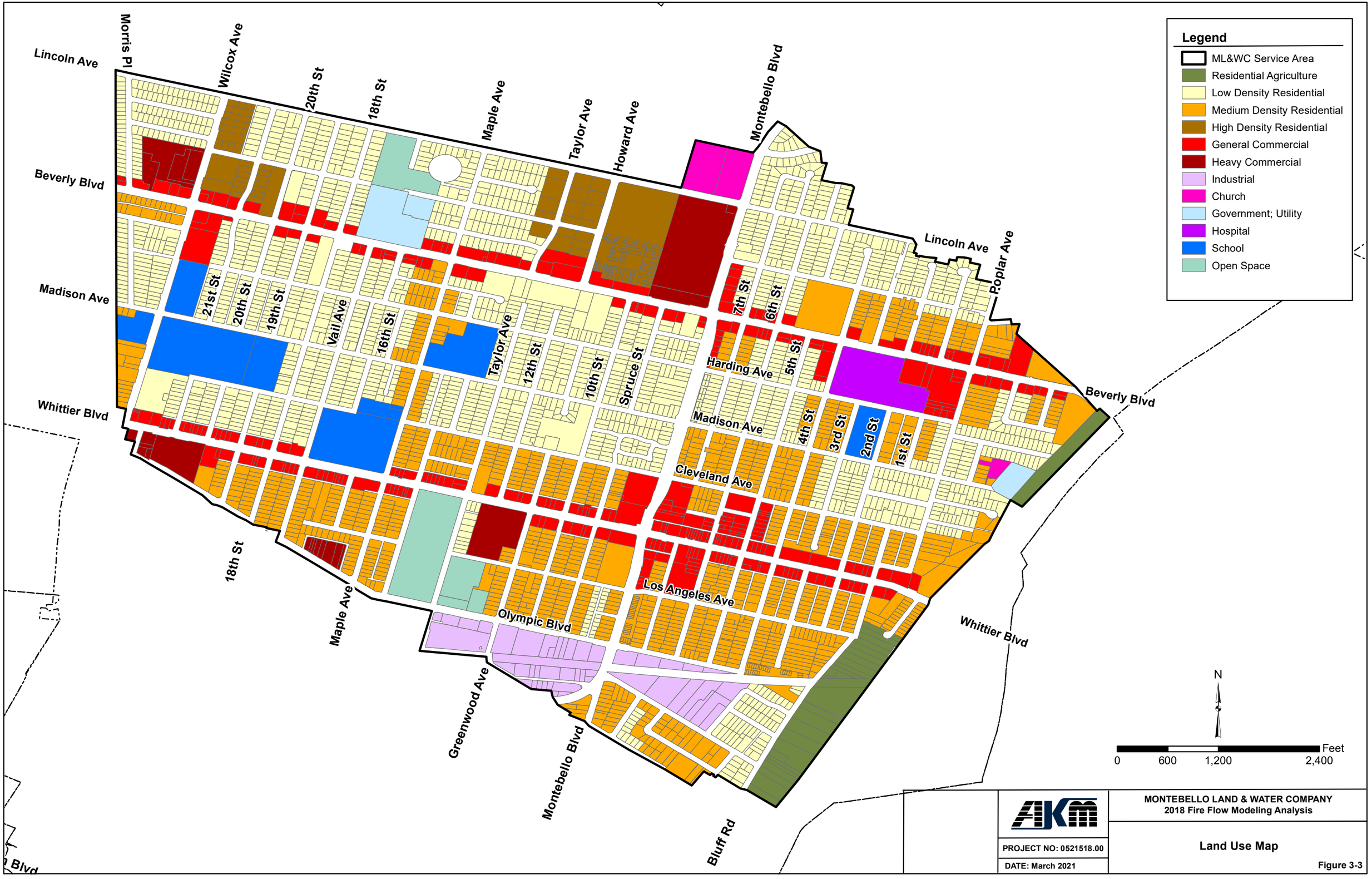
Land Use	Total (AC)	% of Total
Residential Agriculture	26.7	2.2
Low Density Residential	350.3	29.5
Medium Density Residential	342.5	28.9
High Density Residential	42.7	3.6
Total Residential	**762.2**	**64.2**
General Commercial	94.2	7.9
Heavy Commercial	37.4	3.1
Industrial	31.7	2.7
Church	8.9	0.8
Government; Utility	11.7	1.0
Hospital	10.6	0.9
School	48.3	4.1
Open Space	24.6	2.1
Right-of-Way	157.6	13.3
Total	**1,187**	**100**

3-6 Population

The Company provides water service to approximately 27,111 people. This was determined using updated regional data and the determination made in the Company's 2010 UWMP that the service area population is approximately 42 percent of the City of Montebello population. The Southern California Associated Governments (SCAG) Demographic and Growth Forecast, dated August 2020 estimated the City of Montebello's (City) population at 63,900 in 2016 and 67,800 in 2045. Assuming a linear rate increase, the City population is estimated at 64,550 in 2020. The Company's service area population is therefore about 42 percent of the City population (27,111 / 64,550). Assuming the population of the Company's service area continues to be about 42 percent of the City's population, the service area population is shown in Table 3-4.

Table 3-4
Service Area Population

Submittal Table 3-1 Retail: Population - Current and Projected						
Population Served	2020	2025	2030	2035	2040	2045*(opt)*
	27,111	27,384	27,657	27,930	28,203	28,476
NOTES: Maintained 2015 UWMP population estimates for 2020 through 2035. Estimated 2040 & 2045 population using the assumption of 42% of the City of Montebello population and the SCAG Demographics and Growth Forecast dated August 2020.						



MONTEBELLO LAND & WATER COMPANY
2018 Fire Flow Modeling Analysis

PROJECT NO: 0521518.00

DATE: March 2021

Land Use Map

Figure 3-3

3-7 Other Social, Economic, and Demographic Factors

The Company's service area does not have significant non-residential populations, such as seasonal populations,that fluctuate based on vacation, agricultural, institutional, or commercial economies. There is not a significant student housing population in the service area and no agriculture occurs in the area. The majorityof the population are permanent residents in single family and multifamily homes. Therefore, no adjustments for non-residential populations were incorporated into the population estimates.

Based on the fact that the service area is essentially built out and there are minimal areas of redevelopment, a large increase in population and/or water use is not expected in the future.

SECTION 4
WATER USE CHARACTERIZATION

4-1 General

This section describes the existing and projected water use in the Montebello Land and Water Company's (Company) service area.

There are three (8) recycled water customers (all City of Montebello properties) within the Company's service area. Recycled water system in the service area is owned by the Central Basin Municipal Water District (CBMWD).

4-2 Historical Production and Purchase

The Company's available potable water supply consists of groundwater from Central Basin. Currently, there are seven (7) active Company wells. In addition, the Company is in the process of designing Well 15, which will have a capacity of about 2,500 gpm and provide additional redundancy in its groundwater supply.

The total annual water production and purchase from 2002 to 2020 is summarized on Table 4-1. Over the last eighteen years, the annual production has averaged 3,365 AFY.

The state of California declared a Drought State of Emergency on January 17, 2014. The Company enacted Water Shortage Stage 1 measures soon after the drought was declared. Therefore, a significant decrease in production is seen from 2013-2014 to 2015-2016. The production dropped from 3,525 AFY to 2,919 AFY. The drought was declared at an end on April 7, 2017 after the driest four year period on record. The Company ended Water Shortage Stage 1 in 2017 as well but kept permanent conservation measures in place per the current Water Shortage Contingency Plan.

Table 4-1
Historical Production Data

Year	Well Production (AF)
2002-2003	3,705
2003-2004	3,848
2004-2005	3,666
2005-2006	3,544
2006-2007	3,686
2007-2008	3,648
2008-2009	3,538
2009-2010	3,373
2010-2011	3,301
2011-2012	3,370
2012-2013	3,468
2013-2014	3,525
2014-2015	3,137
2015-2016	2,919
2016-2017	2,957
2017-2018	3,061
2018-2019	2,969
2019-2020	2,857
Average	**3,365**

4-3 Current Potable and Non-Potable Water Demands

The water demands by customer type are shown in Table 4-2. The total system demand is 2,620 AF without the calculated water loss and 2,940 AF with the water loss (see Section 4-5).

Table 4-2
Demands for Potable and Non-Potable Water – Actual

Submittal Table 4-1 Retail: Demands for Potable and Non-Potable[1] Water - Actual			
	2019-2020 Actual		
Use Type	Additional Description (as needed)	Level of Treatment When Delivered Drop down list	Volume[2]
Single Family		Drinking Water	703.5
Multi-Family		Drinking Water	996.8
Commercial		Drinking Water	439.4
Industrial		Drinking Water	378.1
Institutional/Governmental		Drinking Water	102.2
Losses		Drinking Water	320.0
		TOTAL	2,940
[1] *Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4.* [2] *Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*			
NOTES:			

4-4 Projected Potable and Non-Potable Water Demands

The projected water demands for the years 2024-2025 through 2044-2045 are shown in Table 4-3 and Table 4-4. The water demand in 2019-2020 was 2,940 AFY or 2.625 mgd when water loss is accounted for. The 2020 population is estimated at 27,111. Therefore the water use per person is calculated to be 96.8 gallons per capita per day (gpcd). The projected potable water demands were determined based upon 96.8 gpcd and the projected population of the future year. The increase in demand is only expected to occur within the multi-family customer type. The potable water demands are projected to reach 3,072 AFY by the year 2044-2045. This is a modest 4.5 percent increase from 2019-2020. Recycled water demands are expected to increase from 20 AFY to 29 AFY.

Table 4-3
Demands for Potable and Non-Potable Water – Projected

Submittal Table 4-2 Retail: Use for Potable and Non-Potable[1] Water - Projected						
		Projected Water Use[2]				
Use Type	Additional Description	2025	2030	2035	2040	2045 (opt)
Single Family		704	704	704	704	704
Multi-Family		1,023	1,050	1,076	1,102	1,129
Commercial		439	439	439	439	439
Industrial		378	378	378	378	378
Institutional/Governmental		102	102	102	102	102
Losses		323	326	330	333	336
	TOTAL	2,970	2,999	3,029	3,058	3,088
[1] *Recycled water demands are NOT reported in this table. Recycled water demands are reported in Table 6-4.* [2] *Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*						
NOTES: It is assumed that only the multi-family population and water use will increase in the future.						

Table 4-4
Total Water Use (Potable and Non-Potable)

Submittal Table 4-3 Retail: Total Water Use (Potable and Non-Potable)						
	2020	2025	2030	2035	2040	2045 (opt)
Potable Water, Raw, Other Non-potable	2,940	2,970	2,999	3,029	3,058	3,088
Recycled Water Demand[1]	20	29	29	29	29	29
TOTAL WATER USE	**2,960**	**2,999**	**3,028**	**3,058**	**3,087**	**3,117**
[1] Recycled water demand fields will be blank until Table 6-4 is complete *[2] Long term storage means water placed into groundwater or surface storage that is not removed from storage in the same year. Supplier **may** deduct recycled water placed in long-term storage from their reported demand. This value is manually entered into Table 4-3.*						
NOTES:						

4-5 Distribution System Losses

Water suppliers are required to quantify their distribution losses using the American Water Works Association method. They physical water losses from the water distribution system and the supplier's storage facilities, up to the point of customer consumption are defined as real losses. Apparent losses include unauthorized consumption, customer metering inaccuracies, and systematic data handling errors. The total water loss is a combination of real losses and apparent losses.

The Company's water loss from 2016-2017 through 2019-2020 is shown in Table 4-5.

Table 4-5
Last Five Years of Water Loss Audit Reporting

Submittal Table 4-4 Retail: Last Five Years of Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	**Volume of Water Loss [1,2]**
07/2019	320
07/2018	302
07/2017	350
07/2016	347
07/2015	Not Available
[1] Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet. *[2] **Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*	
NOTES:	

The Company's latest water loss audit was completed for fiscal year 2019-2020. Per the validated report, the non-revenue water (water loss) as a percent by volume of the water supplied was 10.9 percent. It is the

percentage of non-revenue water (320 AF) divided by the total water supplied (2,928 AF). The non-revenue water includes the water loss (295 AF) plus the unbilled unmetered water (25 AF). The total water supplied reported in the water loss audit is different from the well production shown in Table 4-1. A meter and supply error adjustment of 71.6 AF was applied to the supply total for the water loss audit.

4-6 Estimated Future Water Savings

As shown in Table 4-1, the Company has seen a 19 percent reduction in production since 2013-2014. The production dropped from 3,525 AFY (FY 13-14) to 2,857 AFY (FY 19-20). Active and passive savings have contributed to this reduction. Active savings are those that are enacted at the local level, such as rebate programs to promote water use reduction (i.e. toilet replacement and lawn replacement programs). Passive savings are those that result from more global factors, such as increased efficiency standards of system features or new codes and ordinances that limit or reduce water. Public education has also contributed to water use reduction.

Based on the methodology used to project demand, existing savings from passive conservation measures are accounted for, but no additional passive or active water savings have been included in the demand projections. The Company has surpassed its water conservation goals, as described in detail in *Section 5 – SBx7-7 Baselines, Targets, and 2020 Compliance*. Because of this, the Company has chosen not to include estimates for future water savings in its demand projections, as noted in Table 4-6. While estimates of future water savings are not included in the projections, the Company plans to continue to implement and improve upon its water conservation measures to manage demand over the planning horizon.

Table 4-6
Inclusion in Water Use Projections

Submittal Table 4-5 Retail Only: Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook)	No
Are Lower Income Residential Demands Included In Projections?	Yes
NOTES:	

4-7 Water Use for Lower Income Households

A lower income household is defined as having an income below 80 percent of the area's median income (AMI), adjusted for family size. The City of Montebello's housing needs according to the *SCAG 6th Cycle Regional Housing Needs Assessment (RNHA) Final Allocation Plan (Oct 2021 – Oct 2029)* are shown in Table 4-7.

The Company provides water to approximately 42 percent of the City's population. It is assumed that a similar distribution of and growth rate in low income housing applies to the Company's service area. The projected water use of lower income households is included in the overall water use projections provided in Table 4-3.

Table 4-7
City of Montebello Housing Needs

Type	% of AMI	Number of Units Needed	%
Very-low Income	<50% of AMI	1,314	25.3
Low Income	50-80% of AMI	707	13.6
Moderate Income	80-120%	777	15.0
Above Moderate Income	>12% of AMI	2,388	46.0
AMI = Area Median Income	**Total**	**5,186**	

Reference: SCAG 6th Cycle RHNA,Regional Council Approved Final RHNA Allocation Plan

4-8 Climate Change Effects

The Company's service area is located within the City of Montebello which is a part of the Greater Los Angeles County (GLAC) Region. The 2013 Integrated Regional Water Management (IRWM) Plan [IRWMR, 2013] was developed to define a clear vision and direction for the sustainable management of water resources in the GLAC Region over a 25 year planning horizon. The main objectives of the IRWM was to reduce the Region's reliance on imported water; comply with water quality regulations by improving the quality of urban runoff, storm water and wastewater; protect, restore, and enhance natural processes and habitats; increase watershed friendly recreational space for all communities; reduce flood risk in flood prone areas; and adapt to and mitigate against climate change vulnerabilities.

Two climate change analysis efforts that were conducted within the GLAC Region are described in the 2013 IRWM Plan:

1. Climate Change in the Los Angeles Region: Temperature modeling effort led by UCLA for a partnership of the Los Angeles Regional Collaborative for Climate Action and Sustainability and the City of Los Angeles to refine climate modeling for the Greater Los Angeles area between 2041 and 2060.
2. Los Angeles Basin Storm Water Conservation Study: A partnership between the US Bureau of Reclamation and the Los Angeles County Flood Control District (LACFCD) to refine climate change projections influenced by localized geographic differences between coastal and inland areas, as well as changes in topography. Goal is to identify potential flooding and supply effects and vulnerabilities.

A summary of the impacts and effects of climate change on the GLAC Region were summarized in the 2013 IRWM as shown in Table 4-8.

Table 4-8
Impacts and Effects of Climate Change on GLAC Region

Impact to	Effect
Temperature change[1]	• Coastal LA Basin: Increases of 3.5 to 4°F (2041-2060) • Inland LA Basin: Projected increases of 4 to 4.5°F (2041-2060) • Extreme hot days: Number will triple in coastal areas and central Los Angeles, quadruple in San Fernando and San Gabriel Valleys (2041-2060)
Precipitation[2]	• Low-lying Southern California coastal areas: 2 inch decrease in average rainfall • Higher Southern California elevations: 4 to 5 inch decrease in average rainfall
Wildfire Risk[2]	• Little change is projected – already high fire risk
Sea Level Rise[3]	• Rise of 11 inches by 2050 (Southern California)
Demand	• Increases expected, but not quantified
Supply	• **State Water Project**[4]: delivery decrease of 7-10% by 2050 • **Colorado River**[5]: • Flows to decrease by 7-9% by 2050 • Shortages to Lower Basin of: • 1 MAF over any 2 year window up to 51% of the time • 1.5 MAF over any 5 year window up to 59% of the time • **Los Angeles River Aqueduct**[6]: Deliveries to decrease by 10,000 AFY *Local groundwater and local river flow impacts not available*

1. Climate Change in the Los Angeles Region Project: Mid-Century Warming in the Los Angeles Region (UCLA, 2012)
2. California Climate Change Adaptation Planning Guide (CA Emergency Management & Natural Resources Agencies, 2012)
3. Sea Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future (NRC, 2012)
4. Using Future Climate Projections to Support Water Resources Decision Making in California (Climate Change Center, 2009)
5. Colorado River Basin Water Supply and Demand Study Final Reports (USBR 2012)
6. City of Los Angeles 2010 Urban Water Management Plan (LADWP, 2011)

Reference: The Greater Los Angeles County Integrated Regional Water Management Plan, 2013 Update, Table 2-7

Per the 2013 IRWM Plan, climate change is expected to increase average temperature by at least 3.5 degrees Fahrenheit by mid-century with the number of hot days (with temperatures greater than 95 degrees Fahrenheit) tripling at the coast. This effect is further exacerbated in the inland areas. Precipitation is expected to decrease by 2 to 5 inches throughout the South Coast of California with the most extreme reductions taking place in the higher elevations. The sea levels are estimated to rise an average of 11 inches along coast areas in Southern California. The three major imported water supplies feeding the Region are anticipated to have a delivery decrease as a result of climate change.

A list of prioritized vulnerabilities were developed by a Climate Change Subcommittee, which are shown in Table 4-9.

Table 4-9
Prioritized Climate Change Vulnerability Issues

Level	Vulnerability Issue
High	• Decreased ability to meet water conservation goals • Reduced resiliency to drought • Municipal water demand would increase • Decrease in imported water supply (from impacts to Bay-Delta system) • Decrease in coastal groundwater supply • Increase in wildfire risk and erosion and sedimentation which may impact water quality, flood control, and habitat • Damage to coastal infrastructure/recreation/tourism due to sea level rise and storm surge
Medium	• Invasives can reduce water supply available, alter flood regimes, and alter wildfire regimes • Decrease in local surface water supply • Decrease in seasonal water reliability • Increase in nutrient loading and decreased Dissolved Oxygen • Decrease in dilution flows • Decrease in recreational opportunity • Increase in source control or surface water treatment • Decrease in land due to SLR • Increased impacts to habitat and flow availability for species
Low	• Agricultural water demand would decrease • Limited ability to meet higher peaks in water demand (both seasonally and annually) • Habitat water demand would increase • Damage to ecosystem/habitat due to sea level rise • Increases in inland and flash flooding • Decrease in habitat protection against coastal storms • Decrease in hydropower potential

Reference: The Greater Los Angeles County Integrated Regional Water Management Plan, 2013 Update, Table 2-8

The predicted increase in temperatures in the region will likely cause water demands to increase in the future, particularly because potable water is still used for irrigation purposes in the Company's service area and recycled water use is not planned to be significantly expanded in the future.

SECTION 5

SB X7-7 BASELINES, TARGETS, AND 2020 COMPLIANCE

5-1 General

The following sections present the Company's baseline daily per capita water use, calculated in gallons per capita per day (GPCD), and water use targets for 2015 (Interim Water Use Target) and 2020 (ComplianceWater Use Target) as required by SBX7-7. Methods for calculating the baseline and targets are presented,and compliance with the 2020 target is demonstrated. DWR's standardized SBX7-7 Verification Tables that document these calculations are included in Appendix 5-1.

5-2 Baseline Periods

Baseline water use must be calculated for two baseline periods, the 10- to 15-year baseline (Baseline GPCD) and the 5-year baseline (Target Confirmation). To establish Baseline GPCD, water agencies are required to select a 10- to 15- year continuous period ending between December 31, 2004 and December 31, 2010. The length of the continuous period is based on the volume of recycled water delivered in 2008. In order to use a base period longer than 10 years, the volume of recycled water delivered in 2008 must meet at least 10 percent of total water deliveries in that year. In 2008, did not have any recycled water use in its service area, so the 10-year baseline period is applicable. For the Target Confirmation, a continuous five-year period ending no earlier than December 31, 2007 and no later than December 31, 2010 must be selected.

5-3 Baseline Service Area Population

In order to correctly calculate annual GPCD, water agencies must determine the population they served for each baseline year (in both the Baseline GPCD and the Target Confirmation periods), as well as for the 2015 compliance year. The Company's service area population from 1995 through 2007 and 2015 was estimated using the California Department of Finance (CDOF) data and the GIS data of the Company's service area. The CDOF data pertained to the City of Montebello (City) population. Adjustments to the population were made using the assumption that the Company's population is always about 42 percent of the City's population.

The annual population estimates resulting from these calculations are presented in Table 5-1.

Table 5-1
Service Area Population for Baseline GPCD Calculation

Year	Population
1995	25,560
1996	25,668
1997	25,777
1998	25,886
1999	25,994
2000	26,103
2001	26,118
2002	26,132
2003	26,147
2004	26,162
2005	26,177
2006	26,191
2007	26,206
2015	26,554

5-4 Gross Water Use

Gross water use is the total volume of water entering into the distribution system with exclusions for:

- Recycled water
- Water placed into long-term storage
- Water conveyed for use by another water supplier
- Water delivered for agricultural use
- Process water

The Company does not have agricultural water use in its service area, does not supply a significant portion of industrial process water, and did not place any water into long-term storage during the baseline or compliance period. Therefore these exclusions did not apply to the calculation of the Company's gross water use. Recycled water is tracked separately from potable water, and was easily excluded from gross water use. Water conveyed for use by another water supplier is tracked as a line item in annual water use reports provided to DWR. Conveyed water was also excluded from gross water use based on information available in those reports. The Company's gross water use for 1995 to 2007 is presented in Table 5-2. Additionally, the gross water use for the Interim Water Use Target in year 2015 is shown in the table.

Table 5-2
Gross Water Use for Baseline GPCD Calculation

Year	Gross Water Use (AFY)
1995	3,714
1996	4,044
1997	4,304
1998	4,076
1999	4,075
2000	3,931
2001	3,889
2002	3,883
2003	3,705
2004	3,848
2005	3,666
2006	3,544
2007	3,686
2015	3,137

5-5 Baseline Daily Per Capita Water Use

The baseline period of 1995 to 2004 was selected for calculation of the Baseline GPCD. During this period the average GPCD was 136, as shown in Table 5-3. For the Target Confirmation, the Company selected the 5-year baseline period between 2003 and 2007, and calculated the 5-year baseline as 126 GPCD, as shown in Table 5-4. Additional details on these calculations are provided in the SBx7-7 Verification Tables included as Appendix 5-1.

Table 5-3
10-Year Baseline Daily Per Capita Water Use

Base Years	Service Area Population	Gross Water Use (AFY)	Daily Per Capita Water Use (GPCD)
1995	25,560	3,714	130
1996	25,668	4,044	141
1997	25,777	4,304	149
1998	25,886	4,076	141
1999	25,994	4,075	140
2000	26,103	3,931	134
2001	26,118	3,889	133
2002	26,132	3,883	133
2003	26,147	3,705	127
2004	26,162	3,848	131
10-Year Average Baseline GPCD			**136**

Table 5-4
5-Year Baseline Daily Per Capita Water Use

Base Years	Service Area Population	Gross Water Use (AFY)	Daily Per Capita Water Use (GPCD)
2003	26,147	3,705	127
2004	26,162	3,848	131
2005	26,177	3,666	125
2006	26,191	3,544	121
2007	26,206	3,686	126
5-Year Average Baseline GPCD			**126**

5-6 2015 and 2020 Targets

There are four different methods to choose from when determining the Compliance Water Use Target for the year 2020:

- Method 1: Eighty percent of the water agency's Baseline GPCD
- Method 2: Based on the sum of performance standards for efficient indoor residential use, landscape water use equivalent model ordinance, and a ten percent reduction in Commercial, Industrial, and Institutional (CII) Water Use from baseline CII use
- Method 3: Ninety-five percent of the Hydrologic Regional Target from the *20 x 2020 Water Conservation Plan, State of California Agency Team, 2010*
- Method 4: Savings are assumed between the baseline period and 2020 due to metering of unmetered water connections and achieving water conservation measures in three water use sectors:
    - *a.* Indoor residential
    - *b.* CII
    - *c.* Landscape water use, water loss, and other unaccounted-for water

As seen in Appendix 5-1, DWR's Target Method 4 Calculator was utilized to calculate 2020 target water use for the Company. The Company currently meters all water services, so there is no projected metering savings. The DWR calculator assumed an indoor residential per-capita water use of 70 GPCD and a CII (commercial, industrial and government service connections) use of 42 GPCD. A CII savings was calculated to be 4.2, and a landscape and water loss savings of 5.1 was calculated, providing a total savings of 9.3. A default indoor residential water savings of 15 was assumed by the respective calculator. Using Method 4, the Company's 2020 final water use target would be 119.5 GPCD.

Table 5-5 summarizes the Company's baselines and targets.

Table 5-5
Baselines and Targets Summary

Submittal Table 5-1 Baselines and Targets Summary From SB X7-7 Verification Form				
Baseline Period	**Start Year ***	**End Year ***	**Average Baseline GPCD***	**Confirmed 2020 Target***
10-15 year	*1995*	*2004*	*136*	*119.5*
5 Year	*2003*	*2007*	*126*	
**All cells in this table should be populated manually from the supplier's SBX7-7 Verification Form and reported in Gallons per Capita per Day (GPCD)*				
NOTES:				

5-7 2020 Compliance Daily Per Capita Water Use

The CWC mandates that retail water suppliers meet their Water Use Target by December 31, 2020. In 2019-2020, the Company's gross water use was 2,940 AF for a service are population estimated at 27,111 as described in Section 3 and Section 4. Therefore, the Company's actual 2020 per capita water use was 96.8 GPCD which is approximately 19 percent below its Confirmed Water Use Target of 119.5 GPCD. The Company's compliance with the 2020 Confirmed Target is summarized in Table 5-6. No adjustments using weather normalization, economic adjustment, or extraordinary events were applied to the GPCD.

Table 5-6
2020 Compliance

Submittal Table 5-2: 2020 Compliance From SB X7-7 2020 Compliance Form				
2020 GPCD				
Actual 2020 GPCD*	**2020 TOTAL Adjustments***	**Adjusted 2020 GPCD* *(Adjusted if applicable)***	**2020 Confirmed Target GPCD***	**Did Supplier Achieve Targeted Reduction for 2020? Y/N**
96.8			*119.5*	*Yes*
**All cells in this table should be populated manually from the supplier's SBX7-7 2020 Compliance Form and reported in Gallons per Capita per Day (GPCD)*				
NOTES:				

SECTION 6
WATER SUPPLY CHARACTERIZATION

6-1 General

Montebello Land and Water Company (Company) obtains its entire supply of water from the Central Groundwater Basin, which is adjudicated. The Company has an Allowed Pumping Allocation (APA) of 1,829 acre feet per year (AFY). Since 2003-2004, the Company's annual water demands have declined from over 3,800 AFY to approximately 2,850 AFY in 2019-2020. The Company leases groundwater from others with excess APA to make up the difference between its APA and demand. If sufficient water cannot be leased, the Company can obtain water through the Exchange Pool. The current costs of pumping groundwater within the limits of the AP (Replenishment Assessment, or RA) is $382 per acre foot (FY 2020-2021). Leased water costs vary from $120 per acre foot to $250 per acre foot. For leased water, the Company has to pay for the leased water cost, as well as RA. The Exchange Pool water costs are the same total cost per acre foot as imported potable water through the Central Basin Municipal Water District, which is currently $1,104/AF based on MWD Tier 1 Rate (2021). Over the past few years, the Company has been focusing efforts to procure additional extraction amounts by purchasing rights as they become available. The Company currently has seven (7) active wells, which have sufficient capacity to deliver the Company's current and future water demands.

6-2 Groundwater

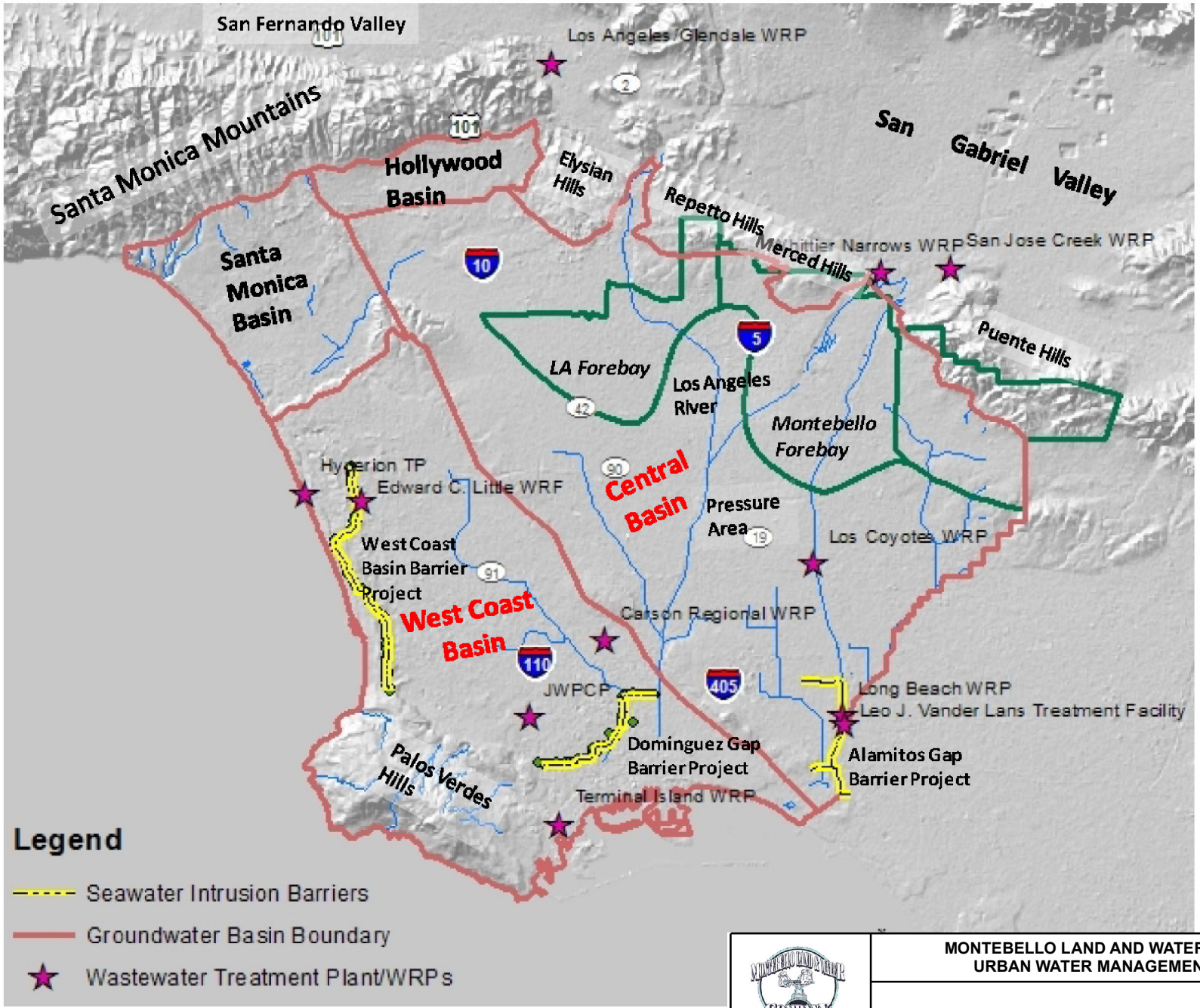
6-2.1 Central Basin Description

The Company's service area is a part of one of 23 incorporated cities and several unincorporated communities that draw water from Central Basin which provides a substantial portion of the water supply needed by the residents, businesses, and industries in the area overlying the basin.

Central Basin is technically a large subbasin occupying the southeastern portion of the larger Coastal Plain of Los Angeles Groundwater Basin, but is managed separately, as discussed in Section 5.2.2 DWR Bulletin 118 designates the Central Basin as Groundwater Basin Number 4-11.04. The Central Basin Aquifer boundaries are shown on Figure 6-1. It is bounded by the Hollywood Basin and the Elysian, Repetto, Merced, and Puente Hills; to the east by the Los Angeles/Orange County line; and to the south and west by the Newport-Inglewood Uplift, a series of discontinuous faults and folds that form a prominent line of northwest-trending hills including the Baldwin Hills, Dominguez Hills, and Signal Hill. [WRD, 2016]

Throughout the Central Basin, groundwater occurs in Holocene and Pleistocene age sediments at relatively shallow depths. There are two forebays of unconfined groundwater conditions and relatively interconnected aquifers that provide recharge to the Central Basin. The Los Angeles Forebay is located where the Los Angeles River passes through the Los Angeles Narrows and enters the Central Basin. The Montebello Forebay extends southward from the Whittier Narrows where the San Gabriel River enters the Central Basin. Due to a large degree of development and paving in the Los Angeles Forebay, most recharge occurs in the Montebello Forebay.

The pressure area of the Central Basin contains many aquifers that are mostly confined, through semi-permeable aquicludes allow for some flow between aquifers



Reference: Groundwater Basins Master Plan, Water Replenishment District of Southern California, September 2016

MONTEBELLO LAND AND WATER COMPANY
URBAN WATER MANAGEMENT PLAN

Central Basin Aquifer

DATE: May 2021

Figure 6-1

6-2.2 Central Basin Judgment

Following the introduction of the deep-well turbine pump in 1909, groundwater extraction increased dramatically along with the population boom and growth in industry and agriculture in the Southern California area. The groundwater demand exceeded the natural replenishment of Central Basin, causing a depletion of the aquifer. Water levels decreased to such low levels that the basin was subjected to sea water intrusion.

The Central and West Basin Water Replenishment District (CWBWRD) was formed in 1959, known today as the Water Replenishment District of Southern California (WRD). Its objective is to replenish and maintain the groundwater basins by purchasing imported water, recharging the basins, and halting sea water intrusion. In 1962, CWBWRD filed a case in the California Superior Court to obtain title to rights to the use of groundwater, to secure judicial definition of each right as against each and every right involved, and to regulate withdrawals from the basin to protect the water supply from deteriorating. The final Judgment became effective on October 1, 1966. At that time, the Department of Water Resources was appointed the Watermaster. Since its inception, the Judgment has been amended three times. A copy of the third amended judgement can be found in Appendix 6-1 [CA, 2013].

The Judgment establishes adjudicated rights totaling 267,900 AFY but limits pumping to an Allowable Pumping Allocation (APA) of approximately 80 percent of this amount, which is equivalent to 217,367 AFY. Both amounts exceed the natural yield of the basin, and the judgment recognizes that WRD artificially replenishes the basin to make up the difference. [WRD, 2016]

The Company's APA is set at 1,829 acre feet per year (AFY). To provide flexibility with regard to groundwater extractions, the Judgment contains provisions, such as the following [WRD, 2020]:

- Carryover: Parties are allowed to carryover up to the greater of
  - 60% of their APA, plus or minus any leases with flex or 20 AF, whichever is more, less the amount of water in a Party's storage account;
  - 20% of their APA, plus or minus any leases with flex

  This will help to meet any unforeseen water demands. Unused Exchange Pool water is carried over into the following fiscal year as well.
- Storage: Parties are permitted holding rights to store water in the Basin for a later recovery. Transfer of stored water between parties is also allowed.
- Regional Disadvantaged Communities Incentive Program (RDCIP): 23,000 AF of storage is allocated for the use or benefit of Disadvantage Communities (DAC) within Central Basin.
- Overextractions: Parties are allowed to pump up to 120 percent of their APA (or 20 AF, whichever is greater) provided that any over production is made up by under-production in the following year. Under certain circumstances, greater amounts can be extracted if approved by the Water Rights Panel.
- Lease: Parties are able to lease their pumping rights. Terms of the leases vary.
- Sales: Parties are able to sell their pumping rights.
- Exchange Pool: Parties who have excess water can make their pumping rights available to pumpers who are without sufficient water.

A copy of the 2019-2020 Watermaster Service in the Central Basin summary report can be found in Appendix 6-2.

6-2.3 Watermaster

The latest Amended Judgment was entered on December 23, 2013. This amendment allows for water rights holders to have direct input into how the Judgment is administered and enforced. It confirms the retirement of DWR as the Watermaster and mandates the creation of a new Watermaster with three separate bodies serving different functions:

1. WRD is appointed as the Administrative Body to assist the Court in the administration and enforcement of the provisions of the Judgment and fulfill the Watermaster accounting and reporting functions
2. The Water Rights Panel is made up of seven Central Basin water rights holders. The panel enforces issues related to pumping rights within the adjudication.
3. The Storage Panel is composed of the Water Rights Panel and the WRD Board of Directors, which together review and approve storage projects within the basin.

WRD in coordination with other basin stakeholders developed a Groundwater Basins Master Plan (GBMP). The intent of the document was to provide a single reference for parties operating within and maintaining the West Coast and Central groundwater basins. It is a guide that will help stakeholders develop and assess initial concepts for additional recharge and pumping from the basins to utilize the basins fully and reduce dependence on imported water. [WRD, 2016]

6-2.4 Groundwater Levels and Monitoring

WRD tracks groundwater levels throughout the year by measuring the depth to water in monitoring wells and production wells located throughout the basin. There are automatic data-logging equipment at most of the nested monitoring wells to collect data more frequently. Pumpers in the basin also provide WRD water level data. WRD currently has 331 nested wells at 59 locations within the Central and West Coast Basins. [WRD, 2021]

Monitoring of groundwater levels can help in assessing the following:

- The amount of groundwater in the basin
- The areas of recharge and discharge from the basin
- The direction the groundwater is moving in the basin
- When replenishment water is needed
- Groundwater storage changes
- Source areas and pathways for seawater intrusion
- Effectiveness of seawater barrier injection wells

In water year 2019-2020, the Central Basin water levels varied across the basin. In the northern portion of the basin, the area between the Los Angeles and Montebello Forebays, water levels have decreased by as much as about three feet from the prior year. Along the eastern border of the basin, water levels range from nearly three feet lower in the north to more than eight feet higher in the south than they were in fall 2019. Across the southern and western portions of the basin, water levels range from nearly five feet higher in the south to relatively unchanged in the west compared to the prior year. [WRD, 2021]

6-2.5 Groundwater Recharge and Reliability

Due to low soil permeability and largely impermeable surfaces in the overlying areas, precipitation over the basin has minimal influence on the replenishment of the Central Basin. Natural replenishment of the basin occurs primarily from surface flow and underflow through Whittier Narrows from the San Gabriel Valley. Intentional replenishment by WRD is accomplished by capturing and spreading water at the Rio Hondo and the San Gabriel River Spreading Grounds in the Montebello Forebay (see Figure 6-1). Historically, sources of replenishment water are local storm runoff, local dry-weather urban runoff, imported water purchased from MWD, and recycled water purchased from the Los Angeles County Sanitation District (LACSD).[WRD, 2020]

In 2003, WRD established the Water Independence Now (WIN) initiative to end its reliance on imported water for groundwater replenishment. WIN was comprised of multiple projects aimed at maximizing local storm water and recycled water sources to replenish the groundwater basins. WIN's cornerstone project was the Albert Robles Center for Water Recycling and Environmental Learning (ARC), located in the City of Pico Rivera. Water from the LACSD San Jose Creek Water Reclamation Plant (SJCWRP) is diverted to the ARC for further treatment. Approximately 10,000 AF (3.25 billion gallons) of tertiary treated water (recycled) is treated annually to near-distilled levels through an advanced water treatment facility. Together, with another 11,000 AF (3.6 billion gallons) of recycled water, WRD delivers 21,000 AF of water to the San Gabriel Coastal Spreading Grounds where it percolates into the Central Basin. With the completion of ARC in 2019, WRD became completely locally sustainable as shown in Table 6-1.

Table 6-1
Central Basin Groundwater Recharge Supply Summary

Supply Source	2018-2019 (AFY)	2019-2020 (AFY)
Local Runoff	81,531	35,447
MWD Untreated Tier 1 Water Purchased by WRD	5,340	0
Make-Up Water from Upper San Gabriel Basin	0	0
Recycled Water		
Whittier Narrows Water Reclamation Plant	6,665	8,413
San Jose Water Reclmation Plant	37,818	36,391
Pomona Water Reclamation Plant	3,447	3,409
Total	**134,801**	**83,660**

Source: Watermaster Service in the Central Basin – Los Angeles County, July 1, 2019 - June 30, 2020

6-2.6 Groundwater Quality

WRD publishes an annual Regional Groundwater Monitoring Report for the Central and West Coast Basins. Per the 2019-2020 report, the groundwater quality in Central Basin is generally of "good quality and is suitable for use by the pumpers in the District, the stakeholders, and the public. Groundwater from localized areas with marginal to poor water quality can still be utilized but may require treatment prior to being used as a potable source". In order to make this assessment, WRD collected over 600 water samples from its nested wells and obtained water quality data from the potable wells in the service area and from the Department of Drinking Water database. Eleven chemical compounds were used to summarize the overall water quality as follows:

Total Dissolved Solids (TDS), Iron, Manganese, Chloride, Nitrate, TCE, PCE, Arsenic, Perchlorate, Hexavalent Chromium, and 1,4-Dioxane. [WRD, 2021]

Beginning in water year 2018-2019 and ending in water year 2019-2020, WRD completed a District-wide assessment for the presence of PFAS constituents in WRD nested monitoring wells and production wells. PFOS and PFOA detections in Central Basin are generally restricted to the vicinity of the Montebello Forebay. They occur within the Montebello Forebay, immediately adjacent and to its west, as well as downgradient along the Los Angeles and San Gabriel Rivers. The Company has detected PFAS within some of its wells and is in the process of designing treatment facilities to meet the State and Federal regulations.

Sea water intrusion in the Alamitos Gap near the mouth of the San Gabriel River poses a threat to the groundwater in the basin. The Alamitos Gap Barrier Project (see Figure 6-1), operated by the Los Angeles County Department of Public Works (LADPW), is made up of 43 injection wells that are designed to prevent sea water intrusion into the basin by creating a groundwater pressure ridge. The project also includes 220 observation wells used to monitor groundwater levels and quality. [WRD, 2020]

6-2.7 Groundwater Pumping

The Company owns 1,829 AF of annual adjudicated pumping rights to groundwater in the Central Basin. Additional water rights are typically leased or purchased from other entities to increase the pumping allocation available to the Company. The Company regularly enters into short-term agreements to purchase or lease additional water rights in the basin.

The Company is completely reliant on local supplies. The Company owns and operates seven (7) active groundwater wells that pump from the Central Basin into the distribution system. The 2013 Judgment permits parties holding water rights to store water in the Central Basin to meet future water demand. The Company has since been able to defer pumping in years with ample supply and carry over those rights into years when less supply is available. Table 6-2 presents the total volume of groundwater pumped by the Company in each year from 2016 to 2020. Average production over this time period was equal to 2,953 AFY.

Table 6-2
Groundwater Volume Pumped

Submittal Table 6-1 Retail: Groundwater Volume Pumped						
Groundwater Type	**Location or Basin Name**	**2016***	**2017***	**2018***	**2019***	**2020***
Alluvial Basin	Coastal Plain of Los Angeles Basin - Central Subbasin (DWR4-11.04)	2,919	2,957	3,061	2,969	2,857
	TOTAL	**2,919**	**2,957**	**3,061**	**2,969**	**2,857**
**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*						
NOTES:						

6-3 Local Surface Water

The Company does not use self-supplied local surface water as part of its water supply and has no plans to do so as of the development of this UWMP.

6-4 Storm Water

Beneficial reuse of storm water includes blending with other water supplies for groundwater recharge, redirecting it into constructed wetlands or landscaping, and diverting it to a treatment facility for subsequent reuse. The Company currently does not divert storm water for beneficial reuse and has no plans to do so as of the development of this UWMP.

6-5 Wastewater and Recycled Water

6-5.1 Wastewater Collection, Treatment, and Disposal

Wastewater collected in the Company's service area by the City is diverted for treatment to the LACSD's Los Coyotes WRP, located in the City of Cerritos. The Los Coyotes WRP serves a population of approximately 370,000 people with a capacity to treat 37.5 million gallons per day (MGD) through primary, secondary, and tertiary treatment processes. Approximately 6 MGD of tertiary treated water is produced at Los Coyotes WRP for beneficial reuse. Reuse includes landscape irrigation of schools, golf courses, parks, nurseries, and greenbelts; and industrial use at local companies for carpet dying and concrete mixing. Treated water that is not reused is disposed of via an outfall to the San Gabriel River, outside the Company's service area.

LACSD calculates a per capita wastewater generation rate (gpcd) for its service areas. The latest estimate was developed in 2018. The per capita wastewater generation rate for the Company's service area is 60.8 gpcd. This factor was then multiplied by the total Company service area population in 2020 (27,111) and converted to an annual volume in AF (1,846 AFY) as the estimated annual wastewater generated in the Company service area.

All wastewater treatment and discharge occurs outside of the Company's service area, as documented in Table 6-3.

Table 6-3
Wastewater Collected Within Service Area in 2020

Submittal Table 6-2 Retail: Wastewater Collected Within Service Area in 2020						
Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated?	Volume of Wastewater Collected from UWMP Service Area 2020 *	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area?	Is WWTP Operation Contracted to a Third Party? *(optional)*
County of Los Angeles Department of Public Works	Estimated	1,856	Sanitation Districts of Los Angeles County	Joint Water Pollution Control Plant	No	No
Total Wastewater Collected from Service Area in 2020:		**1,856**				
**** Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3* **.**						
NOTES:						

Table 6-4
Wastewater Treatment and Discharge within Service Area in 2020

Submittal Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2020	
☑	No wastewater is treated or disposed of within the UWMP service area.
NOTES:	

6-5.2 Recycled Water System and Coordination

Tertiary treated wastewater produced at the Los Coyotes WRP is made available for beneficial reuse within the Company's service area by CBMWD, who purchases recycled water supplies from LACSD for use throughout the Central Basin area. CBMWD developed a regional recycling program comprising two interconnected distribution systems with a total of 70 miles of pipeline. The combined projects, known as the Central Basin Water Recycling Program, allows CBMWD to deliver approximately 5,000 AFY of recycled water. Recycled water distributed through CBMWD's system comes from both LACSD's Los Coyotes and San Jose Creek WRPs.

The Company does not own nor operate any recycled water facilities. Within the Company's service area, CBWD owns the recycled water system and the Company reads the meters and bills the customers for the recycled water deliveries. As of 2019-2020, the Company has three recycled water connections that serve City properties.

As part of the development of this UWMP, the Company coordinated with relevant recycled water agencies as required by CWC §10633. The Company coordinated with CBWD about the availability of recycled water through 2045. The Company also sent notices of preparation to LACSD, CBMWD, and LACDPW to inform these agencies that the 2020 UWMP was being prepared and that participation in the development of the plan was welcome, as described in *Section 2 – Plan Preparation.*

6-5.3 Recycled Water Beneficial Uses

All of the recycled water distributed within the Company's service area is used for landscape irrigation. The Company anticipates adding approximately 29 AF of demand in the future. Future recycled water use, as shown in Table 6-5, was projected based on existing water use data. Recycled water use is not expected to increase significantly within the planning horizon. There was no recycled water use in 2015 as shown in Table 6-6. The first recycled water service was connected in 2018.

Table 6-5
Recycled Water Direct Beneficial Uses within Service Area

Submittal Table 6-4 Retail: Recycled Water Direct Beneficial Uses Within Service Area								
Name of Supplier Producing (Treating) the Recycled Water:	Central Basin Municipal Water District							
Name of Supplier Operating the Recycled Water Distribution System:	Central Basin Municipal Water District							
Supplemental Water Added in 2020 (volume)	None							
Source of 2020 Supplemental Water	Not Applicable							
Beneficial Use Type *Insert additional rows if needed.*	**General Description of 2020 Uses**	**Level of Treatment**	**2020** [1]	**2025** [1]	**2030**[1]	**2035**[1]	**2040**[1]	**2045**[1] **(opt)**
Landscape irrigation (exc golf courses)	Park irrigation and median irrgation	Secondary, Disinfected - 2.2	20	29	29	29	29	29
		Total:	20	29	29	29	29	29
		2020 Internal Reuse						
[1] ***Units of measure (AF, CCF, MG)*** *must remain consistent throughout the UWMP as reported in Table 2-3.*								
NOTES: There was only one recycled water meter owned by the City of Montebello in FY 2019-2020. Two more meters were converted to recycled water after FY 2019-2020. The future estimate is based on limited existing water use data.								

Table 6-6
2015 UWMP Recycled Water Use Projection Compared to 2020 Actual

Submittal Table 6-5 Retail: 2015 UWMP Recycled Water Use Projection Compared to 2020 Actual	
☑	Recycled water was not used in 2015 nor projected for use in 2020. The supplier will not complete the table below. If recycled water was not used in 2020, and was not predicted to be in 2015, then check the box and do not complete the table.
NOTE:	

6-5.4 Actions to Encourage and Optimize Future Recycled Water Use

Given that all of the water is supplied by the Company is from relatively inexpensive local groundwater, recycled water is not a cost effective water supply for the Company. The investments made by the Company to successfully offset more expensive, and less reliable imported supplies with groundwater make it difficult to justify further investments in more costly recycled water supply. Therefore, the Company does not plan to significantly increase recycled water sales. The future recycled water increase is expected to be 9 AFY per Table 6-7.

Table 6-7
Methods to Expand Future Recycled Water Use

Submittal Table 6-6 Retail: Methods to Expand Future Recycled Water Use			
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use *
Conversion	Median Irrigation	2020-2021	9
		Total	9
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*			
NOTES: Plans to convert two median irrigation meters to recycled water (737 and 808 N. Montebello Blvd)			

6-6 Desalinated Water Opportunities

Desalinated water is not considered a viable water supply source within the 2045 planning horizon. The Company is not located on the coast nor does the agency have rights to a brackish water supply source. The procurement of land on which to build a desalination plant, the planning, permitting and construction of the plant, and the transportation of the water from the coast would be cost prohibitive for the Company at this time. The Company would consider purchasing desalinated water if regional supplies became available and were cost effective for the agency.

6-7 Exchanges or Transfers

Historically, the Company has leased water rights from other rights holders in the Central Basin to satisfy demand. The 2013 Judgment expanded the potential for exchanges and transfers within Central Basin by permitting parties holding water rights to store water and to transfer those stored rights to another party in the Judgment. In the future, the Company may be able to exchange or lease water rights within Central Basin through short- or long-term water rights transfers. If the Company enters into an agreement with another rights holder for the exchange or transfer of water rights, the agreement is sent to the Watermaster for approval and filing. The groundwater leases for FY 2019-2020 are shown in Table 6-8.

Table 6-8
Groundwater Leases 2019-2020

Licensor	Lease Type	Lease Amount (AF)
California Domestic Water Company	Lease with flex	80
Hoke, Barbara	Lease with flex	1.5
Lunday-Thagard Oil Company	Lease with flex	130
Martin, Mary	Lease with flex	28
City of Montebello	Lease with flex	386.5
Rosing, Nancy	Lease with flex	1.5
Whittier Union High School District	Lease with flex	50
	Total	**677.5**

*Lease with flex can be carried over to the subsequent year

6-8 Future Water Projects

The Company plans to maintain the reliable production of groundwater supplies by refurbishing and improving production at older wells and drilling additional wells. The future well projects are shown in Table 6-9. Well 15 is a new well. The overall system supply capacity and redundancy will increase.

Table 6-9
Expected Future Water Supply Projects or Programs

Submittal Table 6-7 Retail: Expected Future Water Supply Projects or Programs						
Name of Future Projects or Programs	Joint Project with other suppliers? (y/n)	Joint Project with other suppliers? If Yes, Supplier Name	Description (if needed)	Planned Implementation Year	Planned for Use in Year Type	Expected Increase in Water Supply to Supplier*
Well 15	No		It is a new well. System capacity and redundancy will increase.	2021-2022	All Year Types	0
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-*						
NOTES:						

6-9 Climate Change Effects

As described in Section 4-8, the 2013 Integrated Regional Water Management (IRWM) Plan, precipitation in the Greater Los Angeles County (GLAC) Region is expected to decrease by 2 to 5 inches throughout the South Coast of California with the most extreme reductions taking place in the higher elevations. This could result in a decrease in local groundwater supplies. Fortunately, WRD took the initiative and completed the construction of the ARC so that 21,000 AFY of advanced treated water can be used to replenish the Central Basin. This has ended WRD's reliance on imported water for groundwater replenishment as well as significantly reducing the need for local runoff for replenishment. In 2019-2020, the amount of water contributing to the replenishment of the Central Basin was 35,447 AF, down from 81,531 AF in the previous year. A significant reduction in supply due to climate change is not expected over the 25-year planning horizon.

6-10 Summary of Existing and Planned Sources of Water

The Company anticipates meeting all future demand by maintaining current groundwater rights and recycled water purchases. The Company's current supplies are summarized in Table 6-10. As mentioned in Section 6-6, the Company does not anticipate a significant increase in recycled water use in its service area due to it not being cost effective. Projections for groundwater pumped from the Company's wells assume groundwater is available at least up to the Company's own pumping right of 1,829 AFY. All additional supply to meet demand will be provided through purchases of Central Basin groundwater from the City and/or other agencies.

Table 6-10
Retail Water Supplies - Actual

Submittal Table 6-8 Retail: Water Supplies — Actual				
		2020		
Water Supply	Additional Detail on Water Supply	Actual Volume*	Water Quality	Total Right or Safe Yield* (optional)
Groundwater (not desalinated)	APA + Leases	2,919	Drinking Water	1,829
	Total	2,919		1,829
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*				
NOTES: The Company has an allowable Pumping Allocation (APA) from Central Groundwater Basin of 1,829 AFY. The remaining supply is obtained through leases from neighboring agencies.				

In order to determine the "reasonable available volume" of water for future years, historical groundwater rights, leases, and carryover was evaluated as shown in Table 6-11. The data in Table 6-11 was extracted from the annual reports published by WRD, the Central Basin Watermaster. The Company's existing APA is 1,829 AF. Over the past 20 years, the average lease of water rights and average carry over of water rights was about 1,670 AF and 880 AF, respectively.

The reasonably available volume for 2025 through 2045 is estimated as follows:

Reasonably Available Volume = 1,829 AF (APA)
+ 1,670 AF (Average Leases)
+ 880 AF (Average Carryover)
= 4,379 AF

The Company's supply projections are provided in Table 6-12.

Table 6-11
Historical Groundwater Rights, Leases, and Carryover

Fiscal Year	APA (AF)[1]	Net Carryover from Previous Year (AF)	Leases with Flex (AF)	Leases w/o Flex (AF)[2]	Total Leases (AF)	Total Ground-water Rights (AF)	Amount Pumped (AF)	Balance (AF)	DCO 77 (AF)[3]	DCO 91 (AF)[4]	Normal Carryover (AF)	Total Carryover (AF)
2001-2002	1,624	767	1,767	450	2,217	4,608	3,883	678	23		678	701
2002-2003	1,624	701	1,651	150	1,801	4,126	3,705	421	23		398	421
2003-2004	1,624	421	2,078	400	2,478	4,523	3,848	675	23		652	675
2004-2005	1,624	675	2,534	-400	2,134	4,433	3,666	767	23		744	767
2005-2006	1,624	767	1,736		1,736	4,127	3,544	583	23		560	583
2006-2007	1,624	583	2,086		2,086	4,293	3,686	607	23		584	607
2007-2008	1,624	607	1,920	100	2,020	4,251	3,648	603	23		580	603
2008-2009	1,624	603	2,230	-180	2,050	4,277	3,538	739	23		716	739
2009-2010	1,624	739	1,696	-70	1,626	3,989	3,373	616	23		593	616
2010-2011	1,624	616	2,000		2,000	4,240	3,301	940	23		725	748
2011-2012	1,624	748	1,568		1,568	3,940	3,370	570	23		547	570
2012-2013	1,694	762	1,700		1,700	4,156	3,468	687	23	192	472	687
2013-2014	1,729	738	1,487	627	2,114	4,581	3,525	1,057	40	202	815	1,057
2014-2015	1,729	1,103	1,456	-317	1,139	3,971	3,137	834	40	208	586	834
2015-2016	1,829	814	1,847	400	2,247	4,890	2,919	1,971	40	208	1,724	1,971
2016-2017	1,829	2,011	997		997	4,837	2,957	1,880	40	208	1,633	1,880
2017-2018	1,829	1,880	477	270	747	4,456	3,061	1,396	40	208	1,148	1,396
2018-2019	1,829	1,396	234	650	884	4,109	2,969	1,139	40	208	892	1,139
2019-2020	1,829	1,139	1,078	-400	678	3,646	2,857	789	40	208	542	789
2020-2021	1,829	789	1,185		1,185	3,803	-	-	-	-		-
				Minimum	**678**	**3,646**	**2,857**	**421**			**398**	**421**
				Average	**1,670**	**4,263**	**3,392**	**892**			**768**	**883**
				Maximum	**2,478**	**4,890**	**3,883**	**1,971**				**1,971**

Reference: Annual Reports - "Watermaster Service in the Central Basin - Los Angeles County"

[1] APA = Allowable Pumping Allocation

[2] Leases with Flex transfers both pumping rights and carryover rights per the lease agreement

[3] DCO 77 = Drought carryover created in 1977

[4] DCO 91 = Drought carryover created in 1991

Table 6-12
Water Supplies – Projected

Submittal Table 6-9 Retail: Water Supplies — Projected											
		Projected Water Supply *									
		2025		2030		2035		2040		2045 (opt)	
Water Supply	Additional Detail on Water Supply	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)
Groundwater (not desalinated)	Coastal Plain of Los Angeles Basin - Central Subbasin (DWR4-11.04)	4,379	1,829	4,379	1,829	4,379	1,829	4,379	1,829	4,379	1,829
Total		4,379	1,829	4,379	1,829	4,379	1,829	4,379	1,829	4,379	1,829
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*											
NOTES: The "Reasonably Available Volume" = 1,829 AF (APA) + 1,670 AF (ave leases) + 880 AF (ave											

6-11 Energy Intensity

The Company does not currently operate any treatment facilities. Water is distributed from wells, one reservoir, and one primary booster pump station. Electric billing data was compiled for FY 2019-2020 and is shown in Table 6-13 along with the water use for the same time period. The energy intensity is calculated to be 399.7 kWh/AF.

Table 6-13
Energy Reporting – Total Utility Approach

Table O-1B: Recommended Energy Reporting - Total Utility Approach				
Enter Start Date for Reporting Period	7/1/2019	Urban Water Supplier Operational Control		
End Date	6/29/2020			
☑ Is upstream embedded in the values reported?		Sum of All Water Management Processes	Non-Consequential Hydropower	
Water Volume Units Used	AF	Total Utility	Hydropower	Net Utility
Volume of Water Entering Process (volume unit)		2,940	0	2,940
Energy Consumed (kWh)		1,175,036	0	1,175,036
Energy Intensity (kWh/volume)		399.7	0	399.7
Data Quality *(Estimate, Metered Data, Combination of Estimates and Metered Data)*				
Metered Data				

SECTION 7

WATER SERVICE RELIABILITY AND DROUGHT RISK ASSESSMENT

7-1 Introduction

California Water Code (CWC) §10635 requires every urban water supplier to include as part of the Urban Water Management Plan (UWMP) an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry years. The supply and demand assessment is a comparison of the total water supply sources available to the long-term projected water use over the next 20 years, in five year increments for a normal, single dry water year, and a drought lasting five consecutive years.

In addition, new requirements for the 2020 UWMP include a Drought Risk Assessment (DRA). The DRA includes the following:

1. A description of the data, methodology, and basis for one or more supply shortage conditions
2. A determination of the reliability of each source of supply under a variety of water shortage conditions.
3. A comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.
4. 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

7-2 Water Service Reliability Assessment

7-2.1 Constraints on Water Sources

Montebello Land and Water Company (Company) is currently, and plans to remain, completely dependent on groundwater from the Central Basin for all potable supply. And Central Basin replenishment is also now completely locally sustainable. For this reason, groundwater supply reliability is the only consideration for the Company's overall supply reliability. In addition to potable supplies, The Company's supply portfolio includes a small quantity of non-potable recycled water. Although this quantity is small in relation to total supplies, the reliability of this resource is also considered.

7-2.1.1 Groundwater Supplies

Groundwater supplies come from Central Basin which was adjudicated in 1965 due to declining water levels. In the years following adjudication, groundwater levels rebounded and have been maintained by active recharge and annual limits to groundwater pumping by each party to the adjudication. The Central Basin Watermaster is tasked with ensuring compliance with the Judgment and preventing future overdraft conditions.

Groundwater elevation and quality in Central Basin has been monitored by the WRD for over 60 years. Monitoring data is compiled into annual reports, providing a comprehensive overview of the status of the basin. The most recently produced annual report is the *Regional Groundwater Monitoring Report, Water Year 2019-2020*.

In water year 2019-2020, the Central Basin water levels varied across the basin. In the northern portion of the basin, the area between the Los Angeles and Montebello Forebays, water levels have decreased by as much as about three feet from the prior year. Along the eastern border of the basin, water levels range from nearly three feet lower in the north to more than eight feet higher in the south than they were in fall 2019. Across the southern and western portions of the basin, water levels range from nearly five feet higher in the south to relatively unchanged in the west compared to the prior year. Monitoring completed by the Company at its wells indicates that locally, water levels varied by a maximum of 8 feet from 2019 to 2020.

In addition to monitoring, the Water Replenishment District of Southern California (WRD) replenishes the Central Basin with a combination of local storm water and recycled water. The completion of the Albert Robles Center for Water Recycling and Environmental Learning (ARC) in 2019 enabled WRD to be completely locally sustainable, eliminating imported water as a source of replenishment. The Company does not anticipate that legal or quantity issues will constrain the groundwater supply in the future.

WRD reports the groundwater quality in Central Basin is generally of "good quality and is suitable for use by the pumpers in the District, the stakeholders, and the public. Groundwater from localized areas with marginal to poor water quality can still be utilized but may require treatment prior to being used as a potable source". Eleven chemical compounds were used to summarize the overall water quality as follows: Total Dissolved Solids (TDS), Iron, Manganese, Chloride, Nitrate, TCE, PCE, Arsenic, Perchlorate, Hexavalent Chromium, and 1,4-Dioxane. [WRD, 2021]

Beginning in water year 2018-2019 and ending in water year 2019-2020, WRD completed a District-wide assessment for the presence of PFAS constituents in WRD nested monitoring wells and production wells. PFOS and PFOA detections in Central Basin are generally restricted to the vicinity of the Montebello Forebay. They occur within the Montebello Forebay, immediately adjacent and to its west, as well as downgradient along the Los Angeles and San Gabriel Rivers.

According to the Company's 2020 Consumer Confidence Report (Appendix 7-1), perfluorooctane sulfonic acid (PFOS) levels ranged from 34 to 56 ng/l and perfluorooctanic acid (PFOA) levels ranged from non-detect to 17 ng/l at the Company wells. These PFOS and PFOA levels are above the notification levels of 6.5 and 5.1 ng/l, respectively. The Company is currently in the process of designing a central treatment facilities for PFOS and PFOA to meet the State and Federal regulations. Groundwater quality is not expected to constrain supply reliability in the future.

Sea water intrusion in the Alamitos Gap near the mouth of the San Gabriel River poses a threat to the groundwater in the basin. The

Alamitos Gap Barrier Project, operated by the Los Angeles County Department of Public Works (LADPW), is made up of 43 injection wells that are designed to prevent sea water intrusion into the basin by creating a groundwater pressure ridge. The project also includes 220 observation wells used to monitor groundwater levels and quality. [WRD, 2020]

7-2.1.2 Recycled Water Supplies

The Company receives recycled water from CBMWD for a limited number of connections. The Company does not plan to significantly increase recycled water use in its service area. Primarily, the existing recycled water

connections will be maintained. Recycled water exhibits less variability than other supply sources and it is dependent on wastewater generation and not precipitation or other climatological factors. As recycled water is not limited by hydrologic variation, it is considered a nearly 100 percent reliable, drought resistant supply. Typical water quality concerns with recycled water include salinity, nutrients, and pharmaceuticals and personal care products. Water quality issues with recycled water are less significant than other sources that are used for potable purposes. All recycled water distributed in the Company's service area is treated to tertiary standards and is not expected to impact utilization of this water supply for non-potable uses in the future.

7-2.2 Year Type Characterization

The Company has transitioned to being completely reliant on groundwater to meet potable water demands in its service area and anticipates using groundwater as its sole potable supply source into the foreseeable future. For purposes of reliability planning, hydrologic impacts to local groundwater supply is the main supply source considered. Since groundwater supply is partially dependent on local runoff as shown in Table 6-1, rainfall data was analyzed to determine the average, single dry, and 5-consecutive year drought time periods.

Historical rainfall data from water year 2001-2002 through 2018-2019 is shown in Table 7-1. The average rainfall is 13.05 inches. Water year 2007-2008 experienced 14.67 inches of rainfall, which is the closest to the historical average and therefore considered an "average" year. Water year 2006-2007 experienced 4.40 inches of rainfall, which was the minimum amount and therefore considered the "singe dry" year. The 5-consecutive year drought is defined as the driest 5-year historical sequence experienced. Water year 2011-2012 through 2015-2016 is considered the "5-consecutive year drought" period with the lowest amount of total rainfall (40.21 inches) over 5 years.

The basis of water year data used for the water service reliability assessment is provided in Table 7-2. Based on the historical rainfall data shown in Table 7-1, the Company's selected 2008 as the "average" year, 2007 as the "singe dry" year, and 2012 through 2016 as the "5-consecutive year drought" period.

Table 7-1
Rainfall Data

Water Year (Oct. 1-Sept. 30)	Total Rainfall (in)[1]	% of Average Rainfall	5-Year Total Rainfall (in)	Year Type
2000-2001	14.67	112.4%		
2001-2002	4.65	35.6%		
2002-2003	17.60	134.9%		
2003-2004	11.38	87.2%		
2004-2005	32.70	250.6%	81.00	
2005-2006	13.28	101.8%	79.61	
2006-2007	4.40	33.7%	79.36	Single Dry
2007-2008	14.67	112.4%	76.43	Average
2008-2009	11.15	85.4%	76.20	
2009-2010	17.03	130.5%	60.53	
2010-2011	20.26	155.3%	67.51	
2011-2012	10.81	82.8%	73.92	5-Consecutive Year Drought
2012-2013	8.13	62.3%	67.38	
2013-2014	4.83	37.0%	61.06	
2014-2015	9.26	71.0%	53.29	
2015-2016	7.18	55.0%	40.21	
2016-2017	20.70	158.6%	50.10	
2017-2018	4.63	35.5%	46.60	
2018-2019	20.61	157.9%	67.21	
Minimum	**4.40**		**40.21**	
Average	**13.05**		**65.36**	
Maximum	**32.70**		**81.00**	

[1] *Rainfall data at Whittier Narrows Dam (LADWP Station 1114B)*

Table 7-2
Basis of Water Year Data

Submittal Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment)			
		Available Supplies if Year Type Repeats	
		☐ Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____	
		☑ Quantification of available supplies is provided in this table as either volume only, percent only, or both.	
Year Type	Base Year	Volume Available *	% of Average Supply
Average Year	2008	3,648	100%
Single-Dry Year	2007	3,686	101%
Consecutive Dry Years 1st Year	2012	3,370	92%
Consecutive Dry Years 2nd Year	2013	3,468	95%
Consecutive Dry Years 3rd Year	2014	3,525	97%
Consecutive Dry Years 4th Year	2015	3,137	86%
Consecutive Dry Years 5th Year	2016	2,919	80%
**Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*			
NOTES: Volume Available = Actual Production (AF) for Base Year			

7-2.3 Water Service Reliability

The "average" year is interchangeable with "normal" year. The comparison of supply and demand in normal water years is shown in Table 7-3 based on projections enumerated in *Section 6 – Water Supply Characterization and Section 4 – Water Use Characterization.* The comparison is provided for potable water only since the Company only provides potable water service to its customers. In a normal water year, the Company anticipates having enough supply to meet projected demands for years 2025 through 2045, with an average surplus of 1,321 AF per year.

Table 7-3
Normal Year Supply and Demand Comparison

Submittal Table 7-2 Retail: Normal Year Supply and Demand Comparison					
	2025	2030	2035	2040	2045 *(Opt)*
Supply totals	4,379	4,379	4,379	4,379	4,379
Demand totals	2,999	3,028	3,058	3,087	3,117
Difference	1,380	1,351	1,321	1,292	1,262
NOTES:					

In all future singe dry year scenarios, the Company anticipates having the same volume of water available to it as is available under normal year conditions. Groundwater replenishment varies with hydrology and access to recharge supplies, but the ability to extract groundwater is more a function of long-term average recharge and is less subject to hydrologic variability from year to year. Additionally, WRD's ARC facility and other replenishment efforts to increase recharge in wet years to allow more storage and extraction in dry years will further increase the reliability of the Company's water supply in dry years. As evidence, in 2007, the year selected to represent single dry year hydrology, groundwater yield was unaffected by the drought and the Company had access to enough water supply to satisfy all demands. In a single dry year, the Company anticipates having enough supply to meet projected demands for years 2025 through 2045, with an average surplus of 604 AF per year.

Table 7-4
Single Dry Year Supply and Demand Comparison

OPTIONAL Table 7-3 Retail: Single Dry Year Supply and Demand Comparison - Potable					
	2025	**2030**	**2035**	**2040**	**2045 (Opt)**
Supply totals*	4,379	4,379	4,379	4,379	4,379
Demand totals*	3,716	3,745	3,775	3,804	3,834
Difference	663	634	604	575	545
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*					
NOTES: Demand of 3,686 AF from single dry year (2006-2007) was increased by the amount of water demand expected from an increase in population for each of the future years.					

Under the multiple dry year scenario (5-consecutive year drought conditions), based on hydrologic conditions similar to the 2012-2016 period, the Company also anticipates having enough water supplies to meet projected demands as shown in Table 7-5.

- The first dry year was assumed to be similar to 2011-2012 with an adjustment for future demands due to population increase. The 2011-2012 demand was 3,370 AF.
- The second dry year demand was assumed to be similar to 2012-2013 with an adjustment for future demands due to a population increase. The 2012-2013 demand was 3,468 AF. The increase in demand is about 2.9 percent.
- The third dry year demand was assumed to be similar to 2013-2014 with an adjustment for future demands due to a population increase. The 2013-2014 demand was 3,525 AF. The increase in demand is about 1.6 percent from the previous year.
- Due to the establishment of a Level 1 Water Shortage Condition and the implementation of drought messaging in 2014, the Company's actual demands decreased by about 11 percent in 2014-2015 and another 6.9 percent in 2015-2016. Since the Company now has permanent water conservation requirements in place, the water demands are not expected to decrease as significantly when a Level 1 Water Shortage Condition is implemented again. Therefore, the fourth dry year demand was assumed to drop by 2.5 percent from the prior year with an adjustment for future demands due to a population increase.

- In the fifth dry year, demands were assumed to decrease by 2.5 percent from the prior year with an adjustment for future demands due to population increase.

Table 7-5
Multiple Dry Years Supply and Demand Comparison

OPTIONAL Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison - Potable						
		2025*	2030*	2035*	2040*	2045* (Opt)
First year	Supply totals	4,379	4,379	4,379	4,379	4,379
	Demand totals	3,400	3,429	3,459	3,488	3,518
	Difference	979	950	920	891	861
Second year	Supply totals	4,379	4,379	4,379	4,379	4,379
	Demand totals	3,498	3,527	3,557	3,586	3,616
	Difference	881	852	822	793	763
Third year	Supply totals	4,379	4,379	4,379	4,379	4,379
	Demand totals	3,555	3,584	3,614	3,643	3,673
	Difference	824	795	765	736	706
Fourth year	Supply totals	4,379	4,379	4,379	4,379	4,379
	Demand totals	3,439	3,469	3,498	3,528	3,557
	Difference	940	910	881	851	822
Fifth year	Supply totals	4,379	4,379	4,379	4,379	4,379
	Demand totals	3,355	3,385	3,414	3,444	3,473
	Difference	1,024	994	965	935	906
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*						
NOTES: Demands experienced in 2011-2012 through 2013-2014 were used for the 1st through the 3rd dry year. Demands for 2014-2015 and 2015-2016 were assumed to be 2.5% lower than the prior year. All demands were increased by the amount of water demand expected from an increase in population for each of the future years.						

7-2.4 Description of Management Tools and Options

The Company is completely reliant on local supplies through the acquisition of leased groundwater rights, pumping credits, and implementation of an ongoing rehabilitation and improvement program. The Company relies on connections with neighboring agencies for emergency supply.

The Company plans to maintain the reliable production of groundwater supplies by refurbishing and improving production at older wells and drilling additional wells. New wells will replace old wells with less capacity, but would not add additional supply.

7-3 Drought Risk Assessment

A new requirement of the 2020 UWMP is the drought risk assessment [CWC §10635(b)]. The DRA evaluation is required so that a water supplier can contemplate management of their water supplies during stressed hydrologic conditions in relation to variations in customer water use. Most importantly, it provides the water supplier an opportunity to evaluate the functionality of its Water Shortage Contingency Plan (WSCP) shortage response actions and understand the degree of response that may be necessary as it relates to managing

water supplies. The evaluation can help identify undesired risks and allow proactive steps to be taken prior to the next actual drought period lasting at least five consecutive years.

The drought risk assessment (DRA) must include a description of the following:

1. Data and methods used
2. Basis for the supply shortage conditions
3. Determination of the reliability of each source
4. Comparison of total water supplies and uses during the drought
5. Consideration of historical drought hydrology, climate change conditions, regulatory changes and other locally applicable criteria

7-3.1 Data and Methods

The DRA evaluation is supposed to be based on the five driest consecutive years on record, which occurred from 2012 through 2016. Per WRD's annual reports, the Company has averaged a lease amount of 1,670 AF over the last 20 years as shown in Table 6-11. The average amount of leases over the last five years has reduced to about 900 AF.

For the 2020 UWMP, the "reasonably available volume" of supply reported in Table 6-12 was calculated by adding the Company's APA, an average lease amount of 1,670 AF and an average carryover amount of 880 AF. For the DRA evaluation, the average lease amount from the last five years (~900 AF) was utilized assuming that supply availability may be diminished during a drought period.

The demands are based on production records. In 2020, the Company provided 2,940 AF of water to its customers as shown in Table 4-2. Using the 2020 population of 27,111, the water use per person is calculated to be 96.8 gpcd. Projected demands are based on 96.8 gpcd and the projected population of the future year. The potable water demand projected for 2025 is 2,999 AF as shown in Table 4-3. Population projections were discussed in Section 3-6 and shown in Table 3-4.

7-3.2 Water Source Reliability

The Company has transitioned to being completely reliant on groundwater to meet potable water demands in its service area and anticipates using groundwater as its sole potable supply source into the foreseeable future. The Company works with neighboring water agencies to ensure enough groundwater supply is available either through its own pumping rights, or by leasing or purchasing additional rights, to maintain local supply reliability. The Company relies on connections with neighboring agencies in the event of an emergency.

The Company coordinates with other local water agencies to lease and purchase additional groundwater rights to satisfy annual demand. Additionally, the Company works with its wholesaler, CBMWD, to reduce potable demands through implementation of demand management measures (DMMs) such as rebates for water efficient appliances and providing educational programs for the Company's customers. These DMMs are discussed in detail in *Section 9 – Demand Management Measures*. Continued collaboration with water agencies will support the Company's effective use of local groundwater and maintain imported water independence in the future.

7-3.3 Water Supply and Use Comparison

The five-year DRA analysis is shown in Table 7-6. As previously mentioned, the Company demands in 2025 are projected to be 2,999 AF. The water use increase was assumed to increase at a linear rate from 2021 to 2025.

The five-year DRA assumes that the first dry year is 2021. Per Table 6-11, the total groundwater rights for 2020-2021 is 3,803 AF. This value was assumed for 2021 in the DRA. The surplus is calculated to be 857 AF.

The total groundwater available for 2022 is calculated as shown below. The average lease amount from past 5 years was assumed. The surplus is calculated to be 857 AF.

2022 Total Groundwater Available = 1,829 AF (APA)
+ 900 AF (Minimum Leases)
+ 857 AF (Carryover from 2021)
= 3,586 AF

The total groundwater available for 2023 is calculated as shown below. The average lease amount from past 5 years was assumed. The surplus is calculated to be 634 AF.

2023 Total Groundwater Available = 1,829 AF (APA)
+ 900 AF (Minimum Leases)
+ 634 AF (Carryover from 2022)
= 3,363 AF

The total groundwater available for 2024 is calculated as shown below. The average lease amount from past 5 years was assumed. The surplus is calculated to be 171 AF.

2024 Total Groundwater Available = 1,829 AF (APA)
+ 900 AF (Minimum Leases)
+ 406 AF (Carryover from 2023)
= 3,135 AF

The total groundwater available for 2025 is calculated as shown below. The average lease amount from past 5 years was assumed. The deficit is calculated to be 241 AF. This deficit would require about 8 percent reduction in demand which could be achieved by increasing water conservation education and/or declaring a Stage 1 Water Shortage Condition per the WSCP (See Appendix 8-2, Section 4) and/or an increase of leases.

2025 Total Groundwater Available = 1,829 AF (APA)
+ 900 AF (Minimum Leases)
+ 171 AF (Carryover from 2024)
= 2,729 AF

Table 7-6
Five-Year Drought Risk Assessment

OPTIONAL Table 7-5 Five-year Drought Risk Assessment Tables to address Water Code Section 10635(b) - Potable	
2021	**Total**
Total Water Use - *Potable*	2,946
Total Supplies - *Potable*	3,803
Surplus/Shortfall w/o WSCP Action	857
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	857
Resulting % Use Reduction from WSCP action	0%
2022	**Total**
Total Water Use [Use Worksheet]	2,952
Total Supplies [Supply Worksheet]	3,586
Surplus/Shortfall w/o WSCP Action	634
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	634
Resulting % Use Reduction from WSCP action	0%
2023	**Total**
Total Water Use [Use Worksheet]	2,958
Total Supplies [Supply Worksheet]	3,363
Surplus/Shortfall w/o WSCP Action	405
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	405
Resulting % Use Reduction from WSCP action	0%
2024	**Total**
Total Water Use [Use Worksheet]	2,964
Total Supplies [Supply Worksheet]	3,135
Surplus/Shortfall w/o WSCP Action	171
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	171
Resulting % Use Reduction from WSCP action	0%

Table 7-6 (continued)
Five-Year Drought Risk Assessment

OPTIONAL Table 7-5 Five-year Drought Risk Assessment Tables to address Water Code Section 10635(b) - Potable	
2025	**Total**
Total Water Use [Use Worksheet]	2,970
Total Supplies [Supply Worksheet]	2,729
Surplus/Shortfall w/o WSCP Action	(241)
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	241
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	8%

7-4 Climate Change

As described in Section 4-8, the 2013 Integrated Regional Water Management (IRWM) Plan, precipitation in the Greater Los Angeles County (GLAC) Region is expected to decrease by 2 to 5 inches throughout the South Coast of California with the most extreme reductions taking place in the higher elevations. This could result in a decrease in local groundwater supplies. Fortunately, WRD took the initiative and completed the construction of the ARC so that 21,000 AFY of advanced treated water can be used to replenish the Central Basin. This has ended WRD's reliance on imported water for groundwater replenishment as well as significantly reducing the need for local runoff for replenishment. In 2019-2020, the amount of water contributing to the replenishment of the Central Basin was 35,447 AF, down from 81,531 AF in the previous year. A significant reduction in supply due to climate change is not expected over the 25-year planning horizon.

Climate change may not significantly reduce supply in Central Basin, but demands in the GLAC Region are predicted to increase due to increased temperatures, especially because potable water is still used for irrigation purposes. This in turn could place a larger demand on the groundwater supplies that are available. In order to account for this possibility, the Company's annual lease amount was reduced from 1,670 AF to 900 AF assuming less water will be available to lease. This caused a deficit in 2025 which may trigger the declaration of a Stage 1 Water Shortage Condition during that year.

SECTION 8
WATER SHORTAGE CONTINGENCY PLAN

8-1 General

A water shortage occurs when the water supply available is insufficient to meet the normally expected customer water use at a given point in time. It may occur due to a number of reasons, such as population growth, climate change, drought, and/or catastrophic events.

A Water Shortage Contingency Plan (WSCP) is a document used by a water supplier to prevent catastrophic service disruptions through proactive, rather than reactive, management. It documents the process used by a supplier to anticipate water supply disruptions and describes two the supplier intends to address a water shortage when it occurs. It can also be used to justify the projects, policies, and programs determined necessary to mitigate the risk of a water shortage condition.

8-2 New Requirements

In response to the severe drought of 2012-2016, new legislation in 2018 created a WSCP mandate replacing the water shortage contingency analysis under former law. While there are overlapping aspects with the prior law, the new requirements have several prescriptive elements a supplier's WSCP must now include, such as:

1. Key attributes of its Water Supply Reliability Analysis conducted pursuant to Water Code Section 10635. [Water Code Section 10632(a)(1)]
2. Six standard water shortage levels corresponding to progressive ranges of up to 10-, 20-, 30-, 40-, and 50- percent shortages and greater than 50-percent shortage. [Water Code Section 10632(a)(3)(A)]
3. Locally appropriate "shortage response actions" for each shortage level, with a corresponding estimate of the extent the action will address the gap between supplies and demands. [Water Code Section 10632(a)(4)]
4. Procedures for conducting an annual water supply and demand assessment with prescribed elements. Under Water Code Section 10632.1, urban water suppliers are required to submit, by July 1 of each year, beginning the year following adoption of the 2020 UWMP, an annual water shortage assessment report to DWR. [Water Code Section 10632(a)(2)]
5. Communication protocols and procedures to inform customers, the public, and government entities of any current or predicted water shortages and associated response actions. [Water Code Section 10632(a)(5)]
6. Monitoring and reporting procedures to assure appropriate data is collected to monitor customer compliance and to respond to any state reporting requirements. [Water Code Section 10632(a)(9)]
7. A reevaluation and improvement process to assess the functionality of its WSCP and to make appropriate adjustments as may be warranted. [Water Code Section 10632(a)(10)]

8-3 Water Shortage Contingency Plan

Since June 14, 2011, the Company has had in place a WSCP (Appendix 8-1) within its Urban Water Management Plan (UWMP). It previously relied on the City of Montebello (City) to declare water supply shortages and invoke mandatory water use reduction measures applicable within the Company's service area when necessary. As a result of the statewide drought conditions in July 2014, the State Water Resources Control Board (SWRCNB) adopted emergency regulation CCR, Title 23, Section 865, among others, which became effective July 29, 2014 and which directly required the Company to implement all requirements and actions of the stage of its water shortage contingency plan that imposes mandatory restrictions on outdoor irrigation of ornamental landscapes or turf with potable water. Due to the City's failure to determine and declare a Level 1 Water Supply Shortage pursuant to Montebello Municipal Code §8.29.080(A), an act which would have satisfied the Company's requirements under the SWRCB emergency regulations, the Board determined that the Company must have the ability to independently declare water supply shortages as intended in its UWMP, and not to be reliant on the City for such declarations. The Board of Directors of the Company held a public hearing on September 9, 2014 regarding modifying the Company's UWMP in a manner required to be able to independently comply with SWRCB emergency regulation CCR, Title 23, Section 865, among others.

The Company updated and amended this WSCP to meet the new requirements of the current legislation. The updated WSCP is included as Appendix 8-2. The Company adopted the updated WSCP on July 13, 2021.

A summary of the WSCP plan levels is provided in Table 8-1. A summary of demand reduction actions associated with each plan level is provided in Table 8-2.

Table 8-1
Water Shortage Contingency Plan Levels

Submittal Table 8-1 Water Shortage Contingency Plan Levels			
Shortage Level	**Percent Shortage Range**	**Equivalent 2020 WSCP Standard Shortage Level**	**Shortage Response Actions**
Normal	Up to 10%	1	Permanent water conservation requirements and prohibition against waste are in effect at all times: 1. Limits on watering hours - prohibited 10 am to one hour before sunset 2. Limit on watering duration - no more than 15 min per day per station 3. No excessive water flow or runoff 4. No washing down hard or paved surfaces 5. Obligation to fix leaks, breaks or malfunctions 6. Recirculating water required for water fountains and decorative water features 7. Limits on washing vehicles - prohibited except by hand-held bucket or hose equpped with positive self-closing water shut off nozzle 8. Drinking water served upon request only 9. Commercial lodging establishments must provide guest option to decline daily linen services 9. No installation of single pass cooling systems 10. No installation of non-recirculating water systems in commercial car wash and laundry systems 11. Restaurants required to use water conserving dish wash spray valves 12. Recirculating water systems for car wash systems 13. Limited hours of filling or refilling pools, spas, ponds, and artificial lakes
1	10-20%	2	In addition to the permanent water conservation requirements, the folowing requirements apply: 1. Limits on watering days - not to exceed 3 days per week; Nov - March not to exceed 1 day per week 2. Obligation to fix leaks, breaks or malfunctions - within 72 hrs of the water purveyor becoming aware thereof
2	20-30%	3 and 4	In addition to the permanent water conservation requirements and Stage 1 requirements, the folowing requirements apply: 1. Limits on watering days - not to exceed 2 days per week; Nov - March not to exceed 1 day per week 2. Obligation to fix leaks, breaks or malfunctions - within 48 hrs of the water purveyor becoming aware thereof 3. Limits on filling ornamental lakes or ponds - prohibited except to sustain aquatic life 4. Limits on washing vehicles 5. Limits on filling residential swimming pools and spas

Table 8-1 (continued)
Water Shortage Contingency Plan Levels

Submittal Table 8-1 Water Shortage Contingency Plan Levels			
Shortage Level	**Percent Shortage Range**	**Equivalent 2020 WSCP Standard Shortage Level**	**Shortage Response Actions**
3	> 40%	5 and 6	In addition to the permanent water conservation requirements and Stage 1 and Stage 2 requirements, the folowing requirements apply: 1. No watering or irrigating except for maintenance of vegetation using hand-held container or hose with positive self-closing water shut-off nozzle or maintenance of a. landscape needed for fire protection b. landscape needed for soil erosion control c. plant materails identified as rare or essential to protected species d. landscape with active public parks and playing fields, day care centers, golf course greens, and school grounds - not to exceed 2 days per week e. actively irrigated environmental mitigation projects 2. Obligation to fix leaks, breaks or malfunctions - within 24 hrs of the water purveyor becoming aware thereof 3. No new potable water service 4. Limits on building permits 5. Discontinue service for violations of provisions
NOTES:			

Table 8-2
Demand Reduction Actions

Submittal Table 8-2: Demand Reduction Actions				
Shortage Level	**Demand Reduction Actions**	**How much is this going to reduce the shortage gap?**	**Additional Explanation or Reference**	**Penalty, Charge, or Other Enforcement?**
Normal	Landscape - Restrict or prohibit runoff from landscape irrigation	Up to 10%		Yes
	Landscape - Limit landscape irrigation to specific times		Prohibited between 10 am and one hour before sunset PST	Yes
	Landscape - Limit landscape irrigation to specific days		Limited to every other day; does not apply to hand-held bucket or positive self-closing water shut-off nozzles	Yes
	Landscape - Other landscape restriction or prohibition		Time limited to 15 min per station unless watering device is continuously attended or is a very low-flow drip system	Yes
	Other - Prohibit use of potable water for washing hard surfaces			Yes
	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner			Yes
	Water Features - Restrict water use for decorative water features, such as fountains		Recirculating water is required	Yes
	Other - Require automatic shut of hoses		Limits on washing vehicles	Yes
	CII - Restaurants may only serve water upon request			Yes
	CII - Lodging establishment must offer opt out of linen service		Installation of single pass cooling system is prohibited for buildings requesting new water service	Yes
	Other		No installation of non-recirculating water systems in commercial car wash or laundry systems	Yes
	CII - Commercial kitchens required to use pre-rinse spray valves			
	Landscape - Other landscape restriction or prohibition		Construction meters used for irrigation shall not be used between 10 am and one hour before sunset.	Yes
	Other water feature or swimming pool restriction		Filling or refilling of private swimming pools, spas, ponds, artificial lakes prohibited between 10 am and one hour before sunset.	Yes
	Other water feature or swimming pool restriction		Pools and spas shall be equipped with covers not less than five days a week unless facility is in use.	Yes

Table 8-2 (continued)
Demand Reduction Actions

Submittal Table 8-2: Demand Reduction Actions				
Shortage Level	**Demand Reduction Actions**	**How much is this going to reduce the shortage gap?**	**Additional Explanation or Reference**	**Penalty, Charge, or Other Enforcement?**
Level 1	Landscape - Limit landscape irrigation to specific days	An Additonal 10% on top of Normal	Limited to not to exceed three days per week; from November through March, limited to no more than one day per week; does not apply to hand-held bucket or positive self-closing water shut-off nozzles	Yes
	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner		Repairs must be within 72 hours of receipt of written notification	Yes
Level 2	Landscape - Limit landscape irrigation to specific days	An additional 10% on top of Level 1	Limited to not to exceed two days per week; from November through March, limited to no more than one day per week; does not apply to hand-held bucket or positive self-closing water shut-off nozzles	Yes
	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner		Repairs must be within 48 hours of receipt of written notification	Yes
	Water Features - Restrict water use for decorative water features, such as fountains		Filling or refilling of ornamental lakes or ponds is prohibited	Yes
	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water		Limited to using hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing shut-off nozzle or device, by pressure/low volume wash systems, or at a commercial car washing facility that utilizes a recirculating water system to capture or reuse water.	Yes
	Other water feature or swimming pool restriction		Re-filling of more than one foot of depth in a pool or spa and initial filling is prohibited	Yes
Level 3	Landscape - Limit landscape irrigation to specific days	An additional 10% on top of Level 2	Watering or irrigating is prohibited	Yes
	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner		Repairs must be within 24 hours of receipt of written notification	Yes
	Other		No new potable water services allowed	Yes
	Other		Limits on buiding permits	Yes
	Other		Discontinue service to any water user that violates water level provisions	Yes
NOTES:				

SECTION 9
DEMAND MANAGEMENT MEASURES

9-1 General

The Urban Water Management Plan (UWMP) Act requires a water supplier to describe the demand management measures (DMM) being implemented to achieve its urban water use targets. In 2014, the UWMP Act was amended to reorganize the original 14 specific DMMs into six more general requirements plus an "other" category for retail agencies. The updated retail DMMs include: (1) water waste prevention ordinances, (2) metering, (3) conservation pricing, (4) public educationand outreach, (5) programs to assess and manage distribution system real loss, (6) water conservation program coordination and staffing support, and (7) other DMMs that have a significant impact on water use. This section describes the DMMs that the Montebello Land and Water Company (Company) has implemented, is currently implementing, and plans to implement in order to manage demands in its service area and continue to meet its urban water use reduction targets.

9-2 Water Waste Prevention Ordinances

As a mutual water company, the Company does not have the authority to pass ordinances, however, the Company prohibits water waste within its service area by alternative methods. These methods include supporting local ordinances that prohibit water waste, adopting resolutions that include prohibitions on water waste, and developing and implementing a Water Shortage Contingency Plan (WSCP).

Because the Company's service area is entirely within the City of Montebello (City), the City's water waste prevention ordinances apply to the Company and its customers. The Company supports legislation and local ordinances that prohibit water waste within its service area, and encourages its customers to adhere to these regulations by including these prohibitions in its WSCP. The following prohibitions are in place at all times as part of the City Municipal Code (*City of Montebello Municipal Code, Chapter 8.29.060 Permanent Water Conservation Requirements – Prohibition against Waste*):

- **Limits on Watering Hours:** Watering or irrigating of lawn, landscape or other vegetated area with potable water is prohibited between the hours of ten a.m. and one hour before sunset Pacific Standard Time on any day, except by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, or for very short periods of time for the express purpose of adjusting or repairing an irrigation system. Lawns or other irrigated areas shall not be watered more frequently than every other day. Odd-numbered street-addressed properties may water on odd-numbered dates. Even-numbered street-addressed properties may only do so on even-numbered dates. All irrigated areas may be watered on the 29th day of the month of February every fourth year or the 31st day of the month having thirty days. The provisions of this subsection shall not apply to restrict watering of newly seeded or reseeded lawns once a year, nor to prohibit drip irrigation systems.
- **Limit on Watering Duration:** Watering or irrigating of lawn, landscape or other vegetated area with potable water using a landscape irrigation system or a watering device that is not continuously attended is limited to no more than fifteen minutes watering per day per station. This subsection does not apply to landscape irrigation systems that exclusively use very low-flow drip type irrigation systems when no emitter produces more than two gallons of water per hour or weather based controllers or stream rotor sprinklers that meet a seventy percent efficiency standard.

- **No Excessive Water flow or Runoff:** Watering or irrigating of any lawn, landscape or other vegetated area in a manner that causes or allows excessive water flow or runoff onto an adjoining property, or non-landscaped areas such as sidewalks, driveways, streets, alleys, gutters or ditches is prohibited.
- **No Washing Down Hard or Paved Surfaces:** Washing down hard or paved surfaces, including but not limited to sidewalks, walkways, driveways, parking areas, tennis courts, patios or alleys, is prohibited except when necessary to alleviate safety or sanitary hazards, and then only by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off device, a low-volume, high-pressure cleaning machine equipped to recycle any water used, or a low-volume high-pressure water broom. Should the use of water for wash-down have to do with an immediate fire or sanitation hazard, written permission shall have been obtained from the fire department, the health department or the building department.
- **Obligation to Fix Leaks, Breaks or Malfunctions:** Excessive use, loss or escape of water through breaks, leaks or other malfunctions in the water user's plumbing or distribution system for any period of time after such escape of water should have reasonably been discovered and corrected and in no event more than seven days of receiving notice from the city, is prohibited. This section also applies to all water purveyors in the city.
- **Recirculating Water Required for Water Fountains and Decorative Water Features:** Operating a water fountain or other decorative water feature that does not use recirculated water is prohibited.
- **Limits on Washing Vehicles:** Using water to wash or clean a vehicle, including but not limited to any automobile, truck, van, bus, motorcycle, boat or trailer, whether motorized or not is prohibited, except by use of a hand-held bucket or similar container or a hand-held hose equipped with a positive self-closing water shut-off nozzle or device. This subsection does not apply to any commercial car washing facility with an on-site water recycling system. Commercial vehicle washing establishments that do not have on-site water recycling for reuse systems shall meet with city staff within two months of the adoption of this chapter to work out a satisfactory schedule for the installation of such a system or the issuance of a waiver under this chapter.
- **Drinking Water Served Upon Request Only:** Eating or drinking establishments, including but not limited to restaurants, hotels, cafes, cafeterias, bars, or other public places where food or drinks are sold, served, or offered for sale, are prohibited from providing drinking water to any person unless expressly requested by that person or that person's guardian or custodian of care therefor.
- **Commercial Lodging Establishments Must Provide Guests Option to Decline Daily Linen Services:** Hotels, motels and other commercial lodging establishments must provide customers the option of not having towels and linen laundered daily. Commercial lodging establishments must prominently display notice of this option in each bathroom using clear and easily understood English and Spanish languages and any other language commonly used by users of such establishments.
- **No Installation of Single Pass Colling Systems:** Installation of single pass cooling systems is prohibited in buildings requesting new water service.
- **No Installation of Non-recirculating Water Systems in Commercial Car Wash and Laundry Systems:** Installation of non-recirculating water systems is prohibited in premises with new commercial conveyor car wash or new commercial laundry systems.

- **Construction Meters:** Construction meters used for landscape irrigation shall not be used between ten a.m. and one hour before sunset.
- **Swimming Pools:** Filling or refilling of private swimming pools, spas, ponds and artificial lakes is prohibited between ten a.m. and one hour before sunset. Swimming pools and spas shall be equipped with covers to minimize evaporation and such covers shall be used not less than five days a week unless the facility is in use.

The Company's WSCP also outlines ongoing permanent water conservation requirements that prohibit water waste and are required regardless of whether there is a drought.

The Company also enforces water waste prohibitions by passing additional resolutions to adopt water conservation measures that align with the City's ordinances. The Company's resolutions enact, enforce, and support legislation that facilitates implementation of water shortage response measures.

9-3 Metering

The Company is fully metered and requires meters for all new service connections. Sales meters are read bimonthly schedule, the North Zone one month and the South Zone the next month. Production meters are read at least once every week. Sales meter readings alert the Company staff and customers of any abnormal water use. Where high consumption occurs, staff promptly notifies the customer by telephone or by leaving a door hanger at the billing address. The customer then coordinates with the Company to determine the cause of the high consumption. Additionally, the customer is advised on water conservation practices and available conservation assistance to avoid future excessive usage.

The company has evaluated automatic meter reading, known Automatic Meter Infrastructure (AMI) and Automatic Meter Reading (AMR), which are smart meters that can collect, store and send water use data remotely to a hosted or owner server location or collected by a drive by radio system. Smart meter technology can collect data as often as every 15 minutes, may include leak indicator technology, and provide customers nearly real time and historical water consumption information. However, due to the Company's size and minimal service connections, the initial cost of implementing a smart metering system is prohibitive at this time.

Additionally, the Company evaluated the appropriateness of meter sizes for certain customers who experienced leaks in their water meter piping due to cavitation caused by high velocities, and adopted minimum meter size requirements based on a maximum flow velocity of 7 feet per second.

9-4 Conservation Pricing

Conservation pricing provides price signals to customers to use water efficiently and reflects a strong nexus between volume-related costs and volumetric commodity rates. Conservation pricing requires a volumetric rate and therefore service connections must be metered. Examples of volumetric rate designs potentially consistent with conservation pricing include uniform rates, seasonal rates, tiered rates, and allocation-based rates.

With the goal of encouraging water use efficiency, and in a manner that is consistent with Proposition 218, the Company has implemented a Budget Based Water Rate system where each meter type/sector receives a monthly water budget based on the meter type. Customers using water inefficiently will pay higher rates that are revenue neutral (i.e. allows the Company to recover both its variable and fixed costs associated with

operating a water utility) and accounts for the Company's long term conservation goals. The Company's water rates are shown in Table 9-1. Each meter also has a two-month fixed charge that are shown in Table 9-2.

Table 9-1
Water Rates

Single Family and Government			Mulit-Family, Commercial, & Industrial	In the Booster Area an additional	WRD Surcharge
Tiers	Allocation	Rates (Per ccf)	Rate (Per ccf)	Rate (Per ccf)	Rate (Per ccf)
Tier 1	< 20 ccf	$1.91	$2.28	$0.11	$0.89
Tier 2	21 - 31 ccf	$2.13			
Tier 3	> 32 ccf	$2.52			

ccf = 100 cubic feet or 748 gallons
Rates in effect as of September 1, 2020

Table 9-2
Two-Month Meter Charges

Residential, Commercial, & Industrial Meters		Fire Protection Meters	
Meter Size	Charge	Meter Size	Charge
5/8" & 3/4"	$36.35 plus Stock Assessment	4"	$273.60 plus Stock Assessment
1"	$52.78 plus Stock Assessment	6"	$351.50 plus Stock Assessment
1-1/2"	$166.07 plus Stock Assessment	8"	$405.64 plus Stock Assessment
2"	$250.54 plus Stock Assessment		
3"	$361.36 plus Stock Assessment		
4"	$633.61 plus Stock Assessment		
6"	$1,078.05 plus Stock Assessment		

ccf = 100 cubic feet or 748 gallons
Rates in effect as of September 1, 2020

9-5 Public Education and Outreach

The Company recognizes the importance of water conservation and the use of public education and outreach to convey this information. The Company includes the regional flyers and educational information along with its bills and on the Company website as they become available.

Over the years, the Company has conducted water education programs at the local elementary and middle schools. The students are taken on a guided tour of the Company's plant and office facilities and given materials that contain information on using water more wisely. In addition, Water Awareness programs and contests are held at the local schools through the help of school personnel and teaching staff. Fremont Elementary and Montebello Intermediate School have participated in these programs.

In addition to the informational materials offered on the Company's website, school education programs are available to the Company's customers through its wholesale agency, Central Basin Municipal Water District (CBMWD). CBMWD's school education programs include:

- *Water is Life Poster Contest* – A contest designed for students to express the value of water through their artwork.

- *Water Protectors* – A Girl Scout Program to teach girls about water efficiency.

- *Conservation Connection* – A program that provides curriculum for teachers of grades 6-8 to get students actively involved in conserving water and energy at school and at home.

- *Solar Cup* – The nation's largest solar powered boat competition for grades 9-12. Students have an opportunity to develop and increase their leadership and communication skills, as well as gain a better understanding of: stewardship of natural resources, water supply and water quality challenges, renewable energy, and careers within the water industry.

9-6 Programs to Assess and Manage Distribution System Real Loss

As described in Section 4-5, the Company completed a water audit and balance for FY 2019-2020 using the American Water Works Association's (AWWA) Water Audit Software. This water audit, included as Appendix 9-1, estimates that approximately 320 AFY of real loss is occurring in the Company's distribution system. Data on the volume of water supplied, customer consumption, distribution system attributes, and quantities of losses were entered into the software's worksheets. Based on the Company's data, the AWWA Water Audit Software gave the Company a Water Audit Data Validity score of 67 out of 100. Potential areas to improve the audit accuracy and receive a higher score were identified as part of the water audit. Audit accuracy could be improve by addressing: (1) volume from own sources; (2) customer metering inaccuracies; and (3) billed metered information.

9-7 Water Conservation Program Coordination and Staffing

Company has trained its staff in water awareness and performs water audits at meter locations where abnormal water consumption is noted through water billing meter reads and observation of violations of the Company's permanent water conservation measures described in their Water Shortage Contingency Plan.

9-8 Other Demand Management Measures

Rebate programs are provided to the Company's customers through Metropolitan Water District of Southern California (MWD) and its member agency, CBMWD. MWD offers rebates to customers within their distribution territory through its SoCal WaterSmart program.These programs include residential rebates for turf removal, high-efficiency clothes washers, high- efficiency toilets, sprinklers, rain barrels, and irrigation controllers. MWD also offers commercial rebates for such appliances as high-efficiency toilets, urinals, irrigation controllers, and sprinkler nozzles. CBMWD's rebate website includes a rebate calculator that customers can use to quantify both residential and CII rebates in their water service area.

Company customers can participate in the residential and commercial/industrial/institutional rebate programs offered through MWD through the WaterSmart program. The dollar value of these rebates, as provided on the CBMWD website,is summarized in Table 9-3.

Table 9-3
Examples of Rebates Available to Company Customers in 2020

Rebate	Rebate Type	Amount
High-Efficiency Clothes Washer	Residential	$85
High-Efficiency Toilet	Residential/CII	$40
Weather Based Irrigation Controller (less than 1 acre)	Residential	$80/Controller
Weather Based Irrigation Controller (more than 1 acre)	Residential/CII	$35/Station
Rotating Sprinkler Nozzles (min 30 nozzles)	Residential/CII	$2/Nozzle
Rain Barrel (50-199 gallons) (max. quantity 2)	Residential	$35
Cistern (200-500 gallons) (max quantitiy 1)	Residential	$250
Cistern (501-999 gallons) (max quantity 1)	Residential	$300
Cistern (1000+ gallons) (max quantity 1)	Residential	$350
Soil Moisture Sensor System	Residential	$80 or $35/Controller
Turf Replacement (up to 5,000 sf)	Residential/CII	$2/sf
Ultra Low and Zero Water Urinals	CII	$200
Plumbing Flow Control Valves (min of 10)	CII	$5/Valve
Large Rotary Nozzles (min 30 nozzles)	CII	$2/Nozzle
In-stem Flow Regulator (25 device min)	CII	$/Regulator
Connectionless Food Steamer	CII	$485
Air-cooled Ice Machines	CII	$1,000
Cooling Tower Conductivity Controllers	CII	$625
Cooling Tower ph Controllers	CII	$1,750
Dry Vacuum Pumps	CII	$1,250/0.5HP
Laminar Flow Restrictors (min of 10)	CII	$10/Restrictor

Reference: https:/socalwatersmart.com

CII = Commercial, Industrial, and Institutional

9-9 Implementation over the Past Five Years

Over the past five years, the Company has implemented the following demand management measures:

- Implemented Stage 1 Shortage Conditions per the WSCP since California declared drought conditions in January 2014
- Maintained permanent water conservation requirements per WSCP
- Continued to read production meters weekly
- Continued to read sales meters bi-monthly and analyze for any abnormalities
- Implemented conservation pricing via its established budget based water rate system
- Continued with public education and outreach programs
- Completed water audits in FY 16-17, FY 17-18, FY 18-19 and FY 19-20
- Continued with an aggressive annual pipeline replacement program to reduce system losses
- Continued to keep up to date on CBMWD and MWD rebate programs and inform customers about them

As a result of these measures, the per capita water use dropped to 96.8 gallons in fiscal year 2019/2020.

9-10 Water Use Reduction Implementation Plan

The Company will implement the DMMs described in this 2020 UWMP. The Company has already achieved compliance with the 2020 water use target. However, this was accomplished during a period of drought and heightened water conservation messaging and enforcement. In order to ensure that the Company will remain in compliance over the next five years, the Company will closely monitor water use and tailor its public education and outreach program to ensure that targets continued to be met.

The 2020 WSCP was adopted by resolution of the Company's Board of Directors on August 10, 2021 following a public hearing (a copy of the resolution can be found in Appendix 10-3). The hearing provided an opportunity for all residents in the service area to learn and ask questions about the WSCP and water conservation requirements.

SECTION 10

PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION

This Section provides information on the requirements for a public hearing, submitting an adopted Urban Water Management Plan (UWMP) and Water Shortage Contingency Plan (WSCP), making the plans available to the public, plan implementation, and the process for amending an adopted UWMP and WSCP.

10-1 Notice Prior to Public Hearing

Montebello Land and Water Company (Company) notified the city and county in which its service area resides that the 2020 Urban Water Management Plan (UWMP) was being prepared. As required by California Water Code (CWC) §10621 and shown in Table 10-1, these notifications were sent out more than 60 days before the public hearing for the 2020 UWMP and a copy of the notifications can be found in Appendix 10-1.

Table 10-1
Notification to Cities and Counties

Submittal Table 10-1 Retail: Notification to Cities and Counties		
City Name	**60 Day Notice**	**Notice of Public Hearing**
City of Montebello	Yes	Yes
County Name	**60 Day Notice**	**Notice of Public Hearing**
Los Angeles County	Yes	Yes
NOTES:		

10-2 Notice to Public

A draft of the 2020 UWMP and WSCP was made publically available at the Company office on June 28, 2021. Notice of the availability of the draft 2020 UWMP and WSCP, as well as the planned public hearing was placed in the local newspapers (Los Angeles News Group), on the Company website, and at the Company's office. The notice announced that the draft 2020 UWMP and WSCP was available for public inspection at the Company office and included the time and date of the public hearing. Confirmation that the public notice was posted in the local newspaper is provided in Appendix 10-2.

10-3 Public Hearing and Adoption

A public hearing to receive comments on the draft 2020 UWMP and WSCP was held at the Company office on July 13, 2021 and August 10, 2021, respectfully. The Final 2020 UWMP and WSCP was adopted by the Company Board of Directors on August 10, 2021 following the public hearing. A copy of the meeting minutes from the Board meeting agendas as well as the adoption resolution are provided as Appendix 10-3.

10-4 Plan Submittal

The 2020 UWMP and WSCP will be submitted to California Department of Water Resources (DWR) electronically through the Water Use Efficiency (WUE) Data Portal, an online submittal tool, within 30 days of adoption.

An electronic copy (on CD) of the 2020 UWMP and WSCP will be submitted to the California State Library within 30 days of adoption.

An electronic copy of the 2020 UWMP and WSCP will be submitted to the City and County within 30 days of submitting the plans to DWR.

10-5 Public Availability

No later than 30 days after adoption, a copy of the final 2020 UWMP and WSCP will be made publically available at the Company's office during normal business hours and the plans will be posted on the Company's website.

https://www.mtblw.com/

10-6 Amending an Adopted UWMP or WSCP

If the adopted 2020 UWMP is amended in the future, each of the steps for notification, public hearing, adoption, and submittal will also be followed for the amended plan.

If the WSCP is revised after DWR has approved the 2020 UWMP, a copy of the revised WSCP will be submitted to DWR through the WUE Data Portal within 30 days of its adoption.

Appendix 1-1
Checklist

Checklist Arranged by Subject

California Water Code (CWC) Section	Summary as Applies to UWMP	Subject	2020 UWMP Location
10615	A plan shall describe and evaluate sources of supply reasonable and practical efficient uses, reclamation and demand management activities	Introduction and Overview	
10630.5	Each plan shall include a simple description of the supplier's plan inculding 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.	Summary	Section 1-2
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.	Plan Preparation	Section 2-2
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.	Plan Preparation	Section 2-5
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.	Plan Preparation	Section 2-5
10631(h)	Retail suppliers will include documentation that they have provided their wholsale supplier(s) - if any - with water use projections from that source.	System Supplies	N/A
10631(a)	Describe the water supplier service area.	System Description	Section 3-2
10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 3-4
10631(a)	Provide population projections for 2025, 2030, 2035, 2040 and optionally 2045.	System Description	Section 3-6
10631(a)	Describe other social, economic, and demographic factors affecting the supplier's water management planning.	System Description	Section 3-7
10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Section 3-6
10631(a)	Describe the land uses within the service area	System Description	Section 3-5
10631(d)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 4-2, 4-3, 4-4
10631(d)(3)(C)	Retail suppliers shall provide data to show the distribution loss standards were met.	System Water Use	Section 4-5

Checklist Arranged by Subject

California Water Code (CWC) Section	Summary as Applies to UWMP	Subject	2020 UWMP Location
10631(d)(4)(A)	In projected water use, include estimates of water savings from adopted codes, plans, and other policies or laws.	System Water Use	Section 4-6
10631(d)(4)(B)	Provide citations of codes, standards, ordinances, or plans used to make water use projections.	System Water Use	Section 4-4
10631(e)(3)(A)	Report the distribution system water loss for each of the 5 years preceding the plan update.	System Water Use	Section 4-5
10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	Section 4-7
10635(b)	Demands under climate change considerations must be included as part of the drought risk assessment.	System Water Use	Section 4-8
10608.20(e)	Retail suppliers shall provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	Baselines and Targets	Section 5-1 through 5-6
10608.24(a)	Retail suppliers shall meet their water use target by December 31, 2020.	Baselines and Targets	Section 5-7
10608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	N/A
10608.22	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5-year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	N/A
10608.40	Retail suppliers shall report on their compliance in meeting their water use targets. The data shall be reported using a standardized form in SBX7-7 2020 Compliance Form.	Baselines and Targets	Section 5-7
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.	System Supplies	Section 7-2.3
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, *including changes in supply due to climate change.*	System Supplies	Section 7-3
10631(b)(2)	When multiple sources of water supply are identified, describe the management of each supply in relationship to other identified supplies.	System Supplies	N/A
10631(b)(3)	Describe measures taken to acquire and develop planned sources of water.	System Supplies	Section 6-7 and 6-8

Checklist Arranged by Subject

California Water Code (CWC) Section	Summary as Applies to UWMP	Subject	2020 UWMP Location
10631(b)	Identify and quantify the existing and planned sources of water available for 2020, 2025, 2030, 2035, 2040 and optionally 2045.	System Supplies	Section 6-10
10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 6-2
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.	System Supplies	Section 6-2.2
10631(b)(4)(B)	Describe the groundwater basin.	System Supplies	Section 6-2
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.	System Supplies	Section 6-2.2
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.	System Supplies	N/A
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	System Supplies	Section 6-2.7
10631(b)(4)(D)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	Section 6-10
10631(c).	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	System Supplies	Section 6-2.2 and 6-7
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.	System Supplies (Recycled Water)	N/A
10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Section 6-5.3
10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Section 6-5.4
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.	System Supplies (Recycled Water)	Section 6-5.3

Checklist Arranged by Subject

California Water Code (CWC) Section	Summary as Applies to UWMP	Subject	2020 UWMP Location
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.	System Supplies (Recycled Water)	Section 6-5.4
10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	N/A
10631(g)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 6-6
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 method.	System Supplies (Recycled Water)	Section 6-5.1
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.	System Supplies	Section 6-8
10631.2(a)	The UWMP must include energy information, as stated in the code, that a supplier can readily obtain.	System Suppliers, Energy Intensity	Section 6-11
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	Water Supply Reliability Assessment	Section 6-2.6 and 7-2.1.1
10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	Section 6-2.5 and 7-2.1.1
10635(a)	Service Reliability Assessment: Assess the water supply reliability during normal, dry, and a drought lasting five consecutive years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years.	Water Supply Reliability Assessment	Section 7-2.3
10635(b)	Provide a drought risk assessment as part of information considered in developing the demand management measures and water supply projects.	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.	Water Supply Reliability Assessment	Section 7-3.1
10635(b)(2)	Include a determination of the reliability of each source of supply under a variety of water shortage conditions.	Water Supply Reliability Assessment	Section 7-3.2
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.	Water Supply Reliability Assessment	Section 7-3.3

Checklist Arranged by Subject

California Water Code (CWC) Section	Summary as Applies to UWMP	Subject	2020 UWMP Location
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.	Water Supply Reliability Assessment	Section 7-3.4
10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Water Shortage Contingency Planning	Appendix 8-2
10632(a)(1)	Provide the analysis of water supply reliability (from Chapter 7 of Guidebook) in the WSCP	Water Shortage Contingency Planning	Appendix 8-2 Section 1
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 strategeies are implemented.	Water Shortage Contingency Planning	Appendix 8-2 Section 1
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.	Water Shortage Contingency Planning	Appendix 8-2 Section 2-3
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.	Water Shortage Contingency Planning	Appendix 8-2 Section 2-4
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.	Water Shortage Contingency Planning	Appendix 8-2 Section 3-3
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.	Water Shortage Contingency Planning	Appendix 8-2 Section 3-3
10632(a)(4)(A)	Suppliers with water shortage contingency plans that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Water Shortage Contingency Planning	N/A
10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Water Shortage Contingency Planning	Appendix 8-2 Section 4-3
10632(a)(4)(C)	Specify locally appropriate operational changes.	Water Shortage Contingency Planning	Appendix 8-2 Section 4-4
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.	Water Shortage Contingency Planning	Appendix 8-2 Section 4-5
10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Water Shortage Contingency Planning	Appendix 8-2 Section 4-3

Checklist Arranged by Subject

California Water Code (CWC) Section	Summary as Applies to UWMP	Subject	2020 UWMP Location
10632.5	The plan shall include a seismic risk assessment and mitigation plan.	Water Shortage Contingency Planning	Appendix 8-2 Section 4-7
10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Water Shortage Contingency Planning	Appendix 8-2 Section 5-3
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.	Water Shortage Contingency Planning	Appendix 8-2 Section 5-3
10632(a)(6)	Retail supplier must describe how it will ensure compliance with and enforce provisions of the WSCP.	Water Shortage Contingency Planning	Appendix 8-2 Section 6
10632(a)(7)(A)	Describe the legal authority that empowers the supplier to enforce shortage response actions.	Water Shortage Contingency Planning	Appendix 8-2 Section 7-2
10632(a)(7)(B)	Provida a statement that the supplier will declare a water shortage emergency Water Code Chapter 3.	Water Shortage Contingency Planning	Appendix 8-2 Section 7-3
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.	Water Shortage Contingency Planning	Appendix 8-2 Section 7-4
10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	Appendix 8-2 Section 8-2
10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Water Shortage Contingency Planning	Appendix 8-2 Section 8-3
10632(a)(8)(C)	Retail suppliers must describe the cost of compliance with Water Code Chapter 3.3: Excessive Residential Water Use During Drought.	Water Shortage Contingency Planning	Appendix 8-2 Section 8-4
10632(a)(9)	Retail suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance.	Water Shortage Contingency Planning	Appendix 8-2 Section 9
10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Water Shortage Contingency Planning	Appendix 8-2 Section 4-3
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.	Plan Adoption, Submittal, and Implementation	Section 10-5
10632(c).	Make available the Water Shortage Contingency Plan to customers and any city or county where it provides water within 30 days after adopton of the plan.	Water Shortage Contingency Planning	Section 10-6

Checklist Arranged by Subject

California Water Code (CWC) Section	Summary as Applies to UWMP	Subject	2020 UWMP Location
10631(e)(1)	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	Section 9
10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets (recommended to discuss compliance).	Plan Adoption, Submittal, and Implementation	Section 10-3
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. Reported in Table 10-1.	Plan Adoption, Submittal, and Implementation	Section 10-1
10621(f)	Each urban water supplier shall update and submit its 2020 plan to the department by July 1, 2021.	Plan Adoption, Submittal, and Implementation	Section 10-4
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.	Plan Adoption, Submittal, and Implementation	Section 10-2
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.	Plan Adoption, Submittal, and Implementation	Section 10-1
10642	Provide supporting documentation that the plan and contingency plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Section 10-3
10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	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.	Plan Adoption, Submittal, and Implementation	Section 10-4
10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	Section 10-4
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.	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.	Plan Adoption, Submittal, and Implementation	Section 10-5

Checklist Arranged by Subject

California Water Code (CWC) Section	Summary as Applies to UWMP	Subject	2020 UWMP Location
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.	Plan Adoption, Submittal, and Implementation	N/A
10644(b)	If revised, submit a copy of the water shortage contingency plan to DWR within 30 days of adoption.	Plan Adoption, Submittal, and Implementation	Section 10-6

Appendix 5-1
SBx7-7 Verification Tables

SB X7-7 Verification Form Version FINAL.1

Table 4-C.4 has been modified from the FINAL version.

WUEdata Entry Exceptions
The data from the tables below will not be entered into WUEdata tables (the tabs for these tables' worksheets are colored **purple**). These tables will be submitted as separate uploads, in Excel, to WUEdata.
Process Water Deduction SB X7-7 tables 4-C, 4-C.1, 4-C.2, 4-C.3, 4-C.4 and 4-D A supplier that will use the process water deduction will complete the appropriate tables in Excel, submit them as a separate upload to the WUE data tool, and include them in its UWMP.
Target Method 2 SB X7-7 tables 7-B, 7-C, and 7-D A supplier that selects Target Method 2 will contact DWR (gwen.huff@water.ca.gov) for SB X7-7 tables 7-B, 7-C, and 7-D.
Target Method 4 These tables are only available online at http://www.dwr.water.ca.gov/wateruseefficiency/sb7/committees/urban/u4/ptm4.cfm A supplier that selects Target Method 4 will save the tables from the website listed above, complete the tables, submit as a separate upload to WUE data, and include them with its UWMP.

SB X7-7 Table 0: Units of Measure Used in UWMP* *(select one from the drop down list)*
Acre Feet
**The unit of measure must be consistent with Table 2-3*
NOTES:

SB X7-7 Table-1: Baseline Period Ranges			
Baseline	**Parameter**	**Value**	**Units**
10- to 15-year baseline period	2008 total water deliveries	3,648	Acre Feet
	2008 total volume of delivered recycled water	-	Acre Feet
	2008 recycled water as a percent of total deliveries	0.00%	Percent
	Number of years in baseline period[1, 2]	10	Years
	Year beginning baseline period range	1995	
	Year ending baseline period range[3]	2004	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2003	
	Year ending baseline period range[4]	2007	

[1] If the 2008 recycled water percent is less than 10 percent, then the first baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first baseline period is a continuous 10- to 15-year period. *[2] The Water Code requires that the baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the minimum 10 years of baseline data.*

[3] The ending year must be between December 31, 2004 and December 31, 2010.

[4] The ending year must be between December 31, 2007 and December 31, 2010.

NOTES:

SB X7-7 Table 2: Method for Population Estimates	
Method Used to Determine Population (may check more than one)	
☑	**1. Department of Finance** (DOF) DOF Table E-8 (1990 - 2000) and (2000-2010) and DOF Table E-5 (2011 - 2015) when available
☐	**2. Persons-per-Connection Method**
☐	**3. DWR Population Tool**
☑	**4. Other** DWR recommends pre-review
NOTES: The Company used the DOF data and their GIS of the Company's service area (within the City of Montebello) making adjustments to Polygons as needed to calculate the Company's service area population, as 42% of the City of Montebello's.	

SB X7-7 Table 3: Service Area Population		
Year		**Population**
10 to 15 Year Baseline Population		
Year 1	1995	25,560
Year 2	1996	25,668
Year 3	1997	25,777
Year 4	1998	25,886
Year 5	1999	25,994
Year 6	2000	26,103
Year 7	2001	26,118
Year 8	2002	26,132
Year 9	2003	26,147
Year 10	2004	26,162
Year 11		
Year 12		
Year 13		
Year 14		
Year 15		
5 Year Baseline Population		
Year 1	2003	26147
Year 2	2004	26162
Year 3	2005	26177
Year 4	2006	26191
Year 5	2007	26206
2015 Compliance Year Population		
2015		26,554
NOTES:		

SB X7-7 Table 4: Annual Gross Water Use *

Baseline Year *Fm SB X7-7 Table 3*		Volume Into Distribution System *This column will remain blank until SB X7-7 Table 4-A is completed.*	Deductions					Annual Gross Water Use
			Exported Water	Change in Dist. System Storage (+/-)	Indirect Recycled Water *This column will remain blank until SB X7-7 Table 4-B is completed.*	Water Delivered for Agricultural Use	Process Water *This column will remain blank until SB X7-7 Table 4-D is completed.*	
10 to 15 Year Baseline - Gross Water Use								
Year 1	1995	3,714	-		-	-	-	3,714
Year 2	1996	4,044	-		-	-	-	4,044
Year 3	1997	4,304	-		-	-	-	4,304
Year 4	1998	4,076	-		-	-	-	4,076
Year 5	1999	4,075	-		-	-	-	4,075
Year 6	2000	3,931	-		-	-	-	3,931
Year 7	2001	3,889	-		-	-	-	3,889
Year 8	2002	3,883	-		-	-	-	3,883
Year 9	2003	3,705	-		-	-	-	3,705
Year 10	2004	3,848	-		-	-	-	3,848
Year 11	0	-			-		-	-
Year 12	0	-			-		-	-
Year 13	0	-			-		-	-
Year 14	0	-			-		-	-
Year 15	0	-			-		-	-
10 - 15 year baseline average gross water use								**3,947**
5 Year Baseline - Gross Water Use								
Year 1	2003	3,705	-		-	-	-	3,705
Year 2	2004	3,848	-		-	-	-	3,848
Year 3	2005	3,666	-		-	-	-	3,666
Year 4	2006	3,544	-		-	-	-	3,544
Year 5	2007	3,686	-		-	-	-	3,686
5 year baseline average gross water use								**3,690**
2015 Compliance Year - Gross Water Use								
2015		3,137	-		-		-	**3,137**

* NOTE that the units of measure must remain consistent throughout the UWMP, as reported in Table 2-3

NOTES:

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)

Complete one table for each source.

Name of Source	Source 1 (GW, Only Source)
This water source is:	
☑	The supplier's own water source
☐	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1995	3,714		3,714
Year 2	1996	4,044		4,044
Year 3	1997	4,304		4,304
Year 4	1998	4,076		4,076
Year 5	1999	4,075		4,075
Year 6	2000	3,931		3,931
Year 7	2001	3,889		3,889
Year 8	2002	3,883		3,883
Year 9	2003	3,705		3,705
Year 10	2004	3,848		3,848
Year 11	0			-
Year 12	0			-
Year 13	0			-
Year 14	0			-
Year 15	0			-
5 Year Baseline - Water into Distribution System				
Year 1	2003	3,705		3,705
Year 2	2004	3,848		3,848
Year 3	2005	3,666		3,666
Year 4	2006	3,544		3,544
Year 5	2007	3,686		3,686
2015 Compliance Year - Water into Distribution System				
2015		3,137		3,137

** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES:

SB X7-7 Table 4-B: Indirect Recycled Water Use Deduction *(For use only by agencies that are deducting indirect recycled water)*

Baseline Year *Fm SB X7-7 Table 3*		**Surface Reservoir Augmentation**					**Groundwater Recharge**			**Total Deductible Volume of Indirect Recycled Water Entering the Distribution System**
		Volume Discharged from Reservoir for Distribution System Delivery	Percent Recycled Water	Recycled Water Delivered to Treatment Plant	Transmission/ Treatment Loss	Recycled Volume Entering Distribution System from Surface Reservoir Augmentation	Recycled Water Pumped by Utility*	Transmission/ Treatment Losses	Recycled Volume Entering Distribution System from Groundwater Recharge	
10-15 Year Baseline - Indirect Recycled Water Use										
Year 1	1995			-		-			-	-
Year 2	1996			-		-			-	-
Year 3	1997			-		-			-	-
Year 4	1998			-		-			-	-
Year 5	1999			-		-			-	-
Year 6	2000			-		-			-	-
Year 7	2001			-		-			-	-
Year 8	2002			-		-			-	-
Year 9	2003			-		-			-	-
Year 10	2004			-		-			-	-
Year 11	0			-		-			-	-
Year 12	0			-		-			-	-
Year 13	0			-		-			-	-
Year 14	0			-		-			-	-
Year 15	0			-		-			-	-
5 Year Baseline - Indirect Recycled Water Use										
Year 1	2003			-		-			-	-
Year 2	2004			-		-			-	-
Year 3	2005			-		-			-	-
Year 4	2006			-		-			-	-
Year 5	2007			-		-			-	-
2015 Compliance - Indirect Recycled Water Use										
2015				-		-			-	-

**Suppliers will provide supplemental sheets to document the calculation for their input into "Recycled Water Pumped by Utility". The volume reported in this cell must be less than total groundwater pumped - See Methodology 1, Step 8, section 2.c.*

NOTES:

SB X7-7 Table 4-C: Process Water Deduction Eligibility *(For use only by agencies that are deducting process water) Choose Only One*	
☐	**Criteria 1**- Industrial water use is equal to or greater than 12% of gross water use. Complete SB X7-7 Table 4-C.1
☐	**Criteria 2** - Industrial water use is equal to or greater than 15 GPCD. Complete SB X7-7 Table 4-C.2
☐	**Criteria 3** - Non-industrial use is equal to or less than 120 GPCD. Complete SB X7-7 Table 4-C.3
☐	**Criteria 4** - Disadvantaged Community. Complete SB x7-7 Table 4-C.4
NOTES:	

SB X7-7 Table 4-C.1: Process Water Deduction Eligibility

Criteria 1

Industrial water use is equal to or greater than 12% of gross water use

Baseline Year *Fm SB X7-7 Table 3*		Gross Water Use Without Process Water Deduction	Industrial Water Use	Percent Industrial Water	**Eligible for Exclusion Y/N**
10 to 15 Year Baseline - Process Water Deduction Eligibility					
Year 1	1995	3,714		0%	NO
Year 2	1996	4,044		0%	NO
Year 3	1997	4,304		0%	NO
Year 4	1998	4,076		0%	NO
Year 5	1999	4,075		0%	NO
Year 6	2000	3,931		0%	NO
Year 7	2001	3,889		0%	NO
Year 8	2002	3,883		0%	NO
Year 9	2003	3,705		0%	NO
Year 10	2004	3,848		0%	NO
Year 11	0	-			NO
Year 12	0	-			NO
Year 13	0	-			NO
Year 14	0	-			NO
Year 15	0	-			NO
5 Year Baseline - Process Water Deduction Eligibility					
Year 1	2003	3,705		0%	NO
Year 2	2004	3,848		0%	NO
Year 3	2005	3,666		0%	NO
Year 4	2006	3,544		0%	NO
Year 5	2007	3,686		0%	NO
2015 Compliance Year - Process Water Deduction Eligiblity					
2015		3,137		0%	NO

NOTES:

SB X7-7 Table 4-C.2: Process Water Deduction Eligibility

Criteria 2

Industrial water use is equal to or greater than 15 GPCD

Baseline Year *Fm SB X7-7 Table 3*		Industrial Water Use	Population	Industrial GPCD	**Eligible for Exclusion Y/N**
10 to 15 Year Baseline - Process Water Deduction Eligibility					
Year 1	1995		25,560	-	NO
Year 2	1996		25,668	-	NO
Year 3	1997		25,777	-	NO
Year 4	1998		25,886	-	NO
Year 5	1999		25,994	-	NO
Year 6	2000		26,103	-	NO
Year 7	2001		26,118	-	NO
Year 8	2002		26,132	-	NO
Year 9	2003		26,147	-	NO
Year 10	2004		26,162	-	NO
Year 11	0		-		NO
Year 12	0		-		NO
Year 13	0		-		NO
Year 14	0		-		NO
Year 15	0		-		NO
5 Year Baseline - Process Water Deduction Eligibility					
Year 1	2003		26,147	-	NO
Year 2	2004		26,162	-	NO
Year 3	2005		26,177	-	NO
Year 4	2006		26,191	-	NO
Year 5	2007		26,206	-	NO
2015 Compliance Year - Process Water Deduction Eligibility					
2015			26,554	-	NO

NOTES:

SB X7-7 Table 4-C.3: Process Water Deduction Eligibility							
Criteria 3 Non-industrial use is equal to or less than 120 GPCD							
Baseline Year *Fm SB X7-7 Table 3*		Gross Water Use Without Process Water Deduction *Fm SB X7-7 Table 4*	Industrial Water Use	Non-industrial Water Use	Population *Fm SB X7-7 Table 3*	Non-Industrial GPCD	**Eligible for Exclusion Y/N**
10 to 15 Year Baseline - Process Water Deduction Eligibility							
Year 1	1995	3,714		3,714	25,560	130	NO
Year 2	1996	4,044		4,044	25,668	141	NO
Year 3	1997	4,304		4,304	25,777	149	NO
Year 4	1998	4,076		4,076	25,886	141	NO
Year 5	1999	4,075		4,075	25,994	140	NO
Year 6	2000	3,931		3,931	26,103	134	NO
Year 7	2001	3,889		3,889	26,118	133	NO
Year 8	2002	3,883		3,883	26,132	133	NO
Year 9	2003	3,705		3,705	26,147	127	NO
Year 10	2004	3,848		3,848	26,162	131	NO
Year 11	0	-		-	-		NO
Year 12	0	-		-	-		NO
Year 13	0	-		-	-		NO
Year 14	0	-		-	-		NO
Year 15	0	-		-	-		NO
5 Year Baseline - Process Water Deduction Eligibility							
Year 1	2003	3,705		3,705	26,147	127	NO
Year 2	2004	3,848		3,848	26,162	131	NO
Year 3	2005	3,666		3,666	26,177	125	NO
Year 4	2006	3,544		3,544	26,191	121	NO
Year 5	2007	3,686		3,686	26,206	126	NO
2015 Compliance Year - Process Water Deduction Eligiblity							
2015		3,137		3,137	26,554	105	YES
NOTES:							

SB X7-7 Table 4-C.4: Process Water Deduction Eligibility

Criteria 4

Disadvantaged Community. A "Disadvantaged Community" (DAC) is a community with a median household income less than 80 percent of the statewide average.

SELECT ONE

"Disadvantaged Community" status was determined using one of the methods listed below:

☐ **1. IRWM DAC Mapping tool**
http://www.water.ca.gov/irwm/grants/resources_dac.cfm

If using the IRWM DAC Mapping Tool, include a screen shot from the tool showing that the service area is considered a DAC.

☑ **2. 2010 Median Income**

California Median Household Income		Service Area Median Household Income	Percentage of Statewide Average	**Eligible for Exclusion? Y/N**
2015 Compliance Year - Process Water Deduction Eligibility				
2010	$60,883	$47,652	78%	YES

NOTES: Based on the 2015 US Census Bureau Data

SB X7-7 Table 4-D: Process Water Deduction - Volume *Complete a separate table for each industrial customer with a process water exclusion*						
Name of Industrial Customer		*Industrial Customer 1*				
Baseline Year *Fm SB X7-7 Table 3*		Industrial Customer's Total Water Use	Total Volume Supplied by Water Agency	% of Water Supplied by Water Agency	Customer's Total Process Water Use	Volume of Process Water Eligible for Exclusion for this Customer
10 to 15 Year Baseline - Process Water Deduction						
Year 1	1995					-
Year 2	1996					-
Year 3	1997					-
Year 4	1998					-
Year 5	1999					-
Year 6	2000					-
Year 7	2001					-
Year 8	2002					-
Year 9	2003					-
Year 10	2004					-
Year 11	0					-
Year 12	0					-
Year 13	0					-
Year 14	0					-
Year 15	0					-
5 Year Baseline - Process Water Deduction						
Year 1	2003					-
Year 2	2004					-
Year 3	2005					-
Year 4	2006					-
Year 5	2007					-
2015 Compliance Year - Process Water Deduction						
2015						-
NOTES:						

SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Annual Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	1995	25,560	3,714	130
Year 2	1996	25,668	4,044	141
Year 3	1997	25,777	4,304	149
Year 4	1998	25,886	4,076	141
Year 5	1999	25,994	4,075	140
Year 6	2000	26,103	3,931	134
Year 7	2001	26,118	3,889	133
Year 8	2002	26,132	3,883	133
Year 9	2003	26,147	3,705	127
Year 10	2004	26,162	3,848	131
Year 11	0	-	-	
Year 12	0	-	-	
Year 13	0	-	-	
Year 14	0	-	-	
Year 15	0	-	-	
10-15 Year Average Baseline GPCD				**136**
5 Year Baseline GPCD				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use
Year 1	2003	26,147	3,705	127
Year 2	2004	26,162	3,848	131
Year 3	2005	26,177	3,666	125
Year 4	2006	26,191	3,544	121
Year 5	2007	26,206	3,686	126
5 Year Average Baseline GPCD				**126**
2015 Compliance Year GPCD				
2015		26,554	3,137	**105**
NOTES:				

SB X7-7 Table 6: Gallons per Capita per Day *Summary From Table SB X7-7 Table 5*	
10-15 Year Baseline GPCD	136
5 Year Baseline GPCD	126
2015 Compliance Year GPCD	105
NOTES:	

SB X7-7 Table 7: 2020 Target Method *Select Only One*		
Target Method		Supporting Documentation
☐	Method 1	SB X7-7 Table 7A
☐	Method 2	SB X7-7 Tables 7B, 7C, and 7D *Contact DWR for these tables*
☐	Method 3	SB X7-7 Table 7-E
☑	Method 4	Method 4 Calculator
NOTES:		

SB X7-7 Table 7-A: Target Method 1 20% Reduction	
10-15 Year Baseline GPCD	**2020 Target GPCD**
136	**109**
NOTES:	

SB X7-7 Table 7-B: Target Method 2 Target Landscape
Water Use

Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or gwen.huff@water.ca.gov

SB X7-7 Table 7-C: Target Method 2

Target CII Water Use

Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or gwen.huff@water.ca.gov

SB X7-7 Table 7-D: Target Method 2 Summary

Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or gwen.huff@water.ca.gov

SB X7-7 Table 7-E: Target Method 3				
Agency May Select More Than One as Applicable	Percentage of Service Area in This Hydrological Region	Hydrologic Region	"2020 Plan" Regional Targets	Method 3 Regional Targets (95%)
☐		North Coast	137	130
☐		North Lahontan	173	164
☐		Sacramento River	176	167
☐		San Francisco Bay	131	124
☐		San Joaquin River	174	165
☐		Central Coast	123	117
☐		Tulare Lake	188	179
☐		South Lahontan	170	162
☑	100%	South Coast	149	142
☐		Colorado River	211	200
Target *(If more than one region is selected, this value is calculated.)*				**142**
NOTES:				

SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target			
5 Year Baseline GPCD *From SB X7-7 Table 5*	Maximum 2020 Target[1]	Calculated 2020 Target[2]	**Confirmed 2020 Target**
126	120	107	**107**

[1] Maximum 2020 Target is 95% of the 5 Year Baseline GPCD except for suppliers at or below 100 GPCD.

[2] 2020 Target is calculated based on the selected Target Method, see SB X7-7 Table 7 and corresponding tables for agency's calculated target.

NOTES:

SB X7-7 Table 8: 2015 Interim Target GPCD		
Confirmed 2020 Target *Fm SB X7-7 Table 7-F*	10-15 year Baseline GPCD *Fm SB X7-7 Table 5*	**2015 Interim Target GPCD**
107	136	**121**
NOTES:		

SB X7-7 Table 9: 2015 Compliance								
Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments *(in GPCD)* Enter "0" if Adjustment Not Used: Extraordinary Events	Weather Normalization	Economic Adjustment	TOTAL Adjustments	Adjusted 2015 GPCD	2015 GPCD *(Adjusted if applicable)*	**Did Supplier Achieve Targeted Reduction for 2015?**
105	121	*From Methodology 8 (Optional)*	*From Methodology 8 (Optional)*	*From Methodology 8 (Optional)*	-	105	105	**YES**
NOTES:								

Appendix 6-1
Central Basin Third Amended Judgment

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CITY OF LONG BEACH

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Superior Court of California
County of Los Angeles

DEC 23 2013

Sherri R. Carter, Executive Officer/Clerk
By Marisela Fregoso, Deputy

SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF LOS ANGELES

CENTRAL AND WEST BASIN WATER REPLENISHMENT DISTRICT, etc.,

Plaintiff,

vs.

CHARLES E. ADAMS, et al.,

Defendant

CITY OF LAKEWOOD, a municipal corporation,

Cross-Complainant

vs.

CHARLES E. ADAMS, et al.,

Cross-Defendants.

Case No.: 786,656

THIRD AMENDED JUDGMENT

(Declaring and establishing water rights in Central Basin, enjoining extractions therefrom in excess of specified quantities and providing for the storage and extraction of stored water.)

Assigned for all purposes to
Hon. Abraham Khan
Dept. 51

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The original judgment in this action was entered on or about August 27, 1965. Pursuant to the reserved and continuing jurisdiction of the court under the Judgment herein, certain amendments to said Judgment and temporary orders have heretofore been made and entered. Continuing jurisdiction of the court for this action is currently assigned to Hon. Abraham Khan.

The Motion of Plaintiff WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA (which originally brought this action under its former name "Central and West Basin Water Replenishment District"), and of defendants, City of Lakewood, City of Long Beach, Golden State Water Company, California Water Service Company, City of Los Angeles, City of Cerritos, City of Downey, City of Signal Hill, Pico Water District, Bellflower-Somerset Mutual Water Company, LaHabra Heights County Water District, City of Norwalk, Orchard Dale Water District, Montebello Land & Water Company, South Montebello Irrigation District, Sativa Los Angeles County Water District, City of Vernon and Central Basin Municipal Water District ("Moving Parties") herein for further amendments to the Judgment, notice thereof and of the hearing thereon having been duly and regularly given to all parties, came on for hearing in Department 51 of the above-entitled court on December 18, 2013 at 9:00 a.m. before said Hon. Abraham Khan. This "Third Amended Judgment" incorporates amendments and orders heretofore made to the extent presently operable and amendments pursuant to said last mentioned motion. To the extent this Amended Judgment is a restatement of the Judgment as heretofore amended, it is for convenience in incorporating all matters in one document, is not a readjudication of such matters and is not intended to reopen any such matters. As used hereinafter the word "Judgment" shall include the original Judgment entered in this action as amended to date, including this Third Amended Judgment.

There exists in the County of Los Angeles, State of California, an underground water basin or reservoir known and hereinafter referred to as the "Central Basin" or "Basin" described in Appendix "1" to this Judgment.

Within this Judgment, the following terms, words, phrases and clauses are used by the Court with the following meanings:

"Adjudicated Storage Capacity" means 220,000 acre-feet of the Available Dewatered

Space which has been apportioned herein for Individual Storage Accounts and Community Storage.

"Administrative Body" is defined in Section II(A).

"Administrative Year" means the twelve (12) month period beginning July 1 and ending June 30.

"Allowed Pumping Allocation" is that quantity in acre feet which the Court adjudges to be the maximum quantity which a party should be allowed to extract annually from Central Basin as set forth in Part I hereof, which constitutes 80% of such party's Total Water Right.

"Allowed Pumping Allocation for a particular Administrative Year" and "Allowed Pumping Allocation in the following Administrative Year" and similar clauses, mean the Allowed Pumping Allocation as increased in a particular Administrative Year by any authorized carryovers pursuant to Section III(A) of this Judgment and as reduced by reason of any over-extractions in a previous Administrative Year.

"Artificial Replenishment" is the replenishment of Central Basin achieved through the spreading or injection of imported or recycled water for percolation thereof into Central Basin by a governmental agency, including WRD.

"Artificial Replenishment Water" means water captured or procured by WRD to replenish the Basin, either directly by percolating or injecting the water into the Basin, or through in lieu replenishment by substituting surface water (or payment therefor) in lieu of production and use of groundwater.

"Available Dewatered Space" means the total amount of space available to hold groundwater within the Central Basin without causing Material Physical Harm, which space is allocated between Adjudicated Storage Capacity and Basin Operating Reserve.

"Base Water Right" is the highest continuous extractions of water by a party from Central Basin for a beneficial use in any period of five consecutive years after the commencement of overdraft in Central Basin and prior to the commencement of this action, as to which there has been no cessation of use by that party during any subsequent period of five consecutive years. As employed in the above definition, the words "extractions of water by a party" and "cessation

of use by that party" include such extractions and cessations by any predecessor or predecessors in interest.

"Basin Operating Reserve" means a total of 110,000 acre feet of Available Dewatered Space available for Basin operations as provided in Section IV(L). The Basin Operating Reserve added to the Adjudicated Storage Capacity equals the amount of Available Dewatered Space.

"Calendar Year" is the twelve month period commencing January 1 of each year and ending December 31 of each year.

"Carryover" is defined in Section III(A).

"Carryover Conversion" means the process of transferring water properly held as Carryover into Stored Water, or the water so converted to Stored Water.

"Central Basin" is the underground basin or reservoir underlying the Central Basin Area, the exterior boundaries of which Central Basin are the same as the exterior boundaries of Central Basin Area.

"Central Basin Area" is the territory described in Appendix "1" to this Judgment and is a segment of the territory comprising Plaintiff District.

"Central Basin Water Rights Panel" means the constituent body of Watermaster consisting of seven (7) Parties elected from among parties holding Allowed Pumping Allocations as provided in Section II(B).

"CEQA" refers to the California Environmental Quality Act, Public Resources Code §§ 21000 *et seq.*

"Community Storage Pool" is defined in Section IV(E).

"Declared Water Emergency" means a period commencing with the adoption of a resolution of the Board of Directors of WRD declaring that conditions within the Central Basin relating to natural and imported supplies of water are such that, without implementation of the water emergency provisions of this Judgment, the water resources of the Central Basin risk degradation. Such Declaration may be made as provided in Section III(A)(3).

"Disadvantaged Community" means any area that is served by a Water Purveyor and that consists of one or more contiguous census tracts which, based upon the most-recent United

States Census data, demonstrates a median household income which is less than eighty percent (80%) of the median household income for all Census Tracts within the state of California. The identification of Disadvantaged Communities shall be made by Watermaster following each decennial census.

"Extraction," "extractions," "extracting," "extracted," and other variations of the same noun and verb, mean pumping, taking, diverting or withdrawing groundwater by any manner or means whatsoever from Central Basin.

"Imported Water" means water brought into Central Basin Area from a non-tributary source by a party and any predecessors in interest, either through purchase directly from Metropolitan Water District of Southern California ("MWD"), the Central Basin Municipal Water District ("CBMWD"), or any other MWD member agency and additionally, as to the Department of Water and Power of the City of Los Angeles, water brought into the Central Basin Area by that party by means of the Owens River Aqueduct. In the case of water imported for storage by a party pursuant to this Judgment, "Imported Water" means water brought into the Central Basin from any non-tributary source as one method for establishing storage in the Central Basin.

"Imported Water Use Credit" is the annual amount, computed on a calendar year basis, of Imported Water which any party and any predecessors in interest, who have timely made the required filings under Water Code Section 1005.1, have imported into Central Basin Area in any calendar year and subsequent to July 9, 1951, for beneficial use therein, but not exceeding the amount by which that party and any predecessors in interest reduces his or their extractions of groundwater from Central Basin in that calendar year from the level of his or their extractions in the preceding calendar year, or in any prior calendar year not earlier than the calendar year 1950, whichever is the greater.

"Individual Storage Allocation" is defined in Section IV(D).

"Majority Protest" means a written protest filed with the Administrative Body of Watermaster within sixty (60) days following a protested event or decision, which evidences the concurrence of a majority of the Allowed Pumping Allocations held within the Basin as of the

date thereof.

"Material Physical Harm" means material physical injury or a material diminution in the quality or quantity of groundwater available within the Basin to support extraction of Total Water Rights or Stored Water, that is demonstrated to be attributable to the placement, recharge, injection, storage or recapture of Stored Water in the Central Basin, including, but not limited to, degradation of water quality, liquefaction, land subsidence and other material physical injury caused by elevated or lowered groundwater levels. Material Physical Harm does not include "economic injury" that results from other than direct physical causes, including any adverse effect on water rates, lease rates, or demand for water. Once fully mitigated, physical injury shall no longer be considered to be material.

"Natural Replenishment" means and includes all processes other than "Artificial Replenishment" by which water may become a part of the groundwater supply of Central Basin.

"Natural Safe Yield" is the maximum quantity of groundwater, not in excess of the long term average annual quantity of Natural Replenishment, which may be extracted annually from Central Basin without eventual depletion thereof or without otherwise causing eventual permanent damage to Central Basin as a source of groundwater for beneficial use, said maximum quantity being determined without reference to Artificial Replenishment.

"Outgoing Watermaster" is the State of California, Department of Water Resources, the Watermaster appointed pursuant to the terms of the Judgment before this Third Amendment.

"Overdraft" is that condition of a groundwater basin resulting from extractions in any given annual period or periods in excess of the long term average annual quantity of Natural Replenishment, or in excess of that quantity which may be extracted annually without otherwise causing eventual permanent damage to the basin.

"Party" means a party to this action. Whenever the term "party" is used in connection with a quantitative water right, or any quantitative right, privilege or obligation, or in connection with the assessment for the budget of the Watermaster, it shall be deemed to refer collectively to those parties to whom are attributed a Total Water Right in Part I of this Judgment.

"Person" or "persons" include individuals, partnerships, associations, governmental

agencies and corporations, and any and all types of entities.

"Recycled Water" means water that has been reclaimed through treatment appropriate for its intended use in compliance with applicable regulations.

"Regional Disadvantaged Communities Incentive Program" means a program to be developed by Watermaster in the manner provided in Section II(H) of this Judgment, and approved by the Court, whereby a portion of the Community Storage Pool is made available to or for the benefit of Disadvantaged Communities, on a priority basis within the Central Basin.

"Replenishment Assessment" means the replenishment assessment imposed by WRD upon each acre-foot of groundwater extracted from the Central Basin pursuant to WRD's enabling act, California Water Code §§ 60000 et seq.

"Small Water Producers Group" means a body consisting of parties holding no greater than 5,000 acre-feet of Allowed Pumping Allocation, as set forth on Appendix 3 hereto and as may be modified from time to time by the Group's own procedures and the requirements set forth in Appendix 3.

"Storage Panel" or "Central Basin Storage Panel" means a bicameral constituent body of Watermaster consisting of (i) the Central Basin Water Rights Panel and (ii) the Board of Directors of WRD.

"Storage Project" means an activity pertaining to the placement, recharge, injection, storage, transfer, or recapture of Stored Water within the Basin, but does not include actions by WRD undertaken in connection with its replenishment activities.

"Stored Water" means water, including Recycled Water, held within Available Dewatered Space as a result of spreading, injection, in-lieu delivery, or Carryover Conversion, where there is an intention to subsequently withdraw the water for reasonable and beneficial use pursuant to this Judgment.

"Total Water Right" is the quantity arrived at in the same manner as in the computation of "Base Water Right," but including as if extracted in any particular year the Imported Water Use Credit, if any, to which a particular party may be entitled.

"Water" includes only non-saline water, which is that having less than 1,000 parts of

chlorides to 1,000,000 parts of water.

"Water Augmentation Project" means pre-approved physical actions and management activities that provide demonstrated appreciable increases in long-term annual groundwater yield in the Basin that are initiated as provided in this Judgment after January 1, 2013.

"Water Purveyor" means a Party (and successors in interest) which sells water to the public, whether a regulated public utility, mutual water company or public entity. As that term is used in Section III(B)(6), "Water Purveyor," in addition to the foregoing, means a Party which has a connection or connections for the taking of Imported Water through the Metropolitan Water District of Southern California ("MWD"), or through a MWD-member agency, or access to such Imported Water through such connection, and which normally supplies at least a part of its customers' water needs with such Imported Water.

"Watermaster" is defined in Part II and is comprised of (i) the Administrative Body, (ii) the Central Basin Water Rights Panel, and (iii) the Central Basin Storage Panel. Watermaster, and the various constituent bodies of Watermaster, as designated in this Judgment, exist as a special master pursuant to this Judgment and Watermaster serves at the pleasure of the Court. Nothing herein shall be construed as creating an independent designation of "Watermaster" as a public agency subject to the provisions of CEQA, nor does membership or participation as the designated Watermaster expand any statutory, constitutional, or other powers of the members serving as part of the Watermaster.

"West Coast Basin" is the groundwater basin adjacent to the Central Basin which is the subject of a separate adjudication of groundwater rights in *California Water Service Company, et al. v. City of Compton, et al.*, Los Angeles Superior Court Case No. 506806.

"WRD" or "Water Replenishment District" is the plaintiff herein, the Water Replenishment District of Southern California, a special district of the State of California, which brought this action under its former name, "Central and West Basin Water Replenishment District."

In those instances where any of the above-defined words, terms, phrases or clauses are utilized in the definition of any of the other above-defined words, terms, phrases and clauses,

such use is with the same meaning as is above set forth.

NOW THEREFORE, IT IS ORDERED, DECLARED, ADJUDGED AND DECREED WITH RESPECT TO THE ACTION AND CROSS-ACTION AS FOLLOWS:

I. DECLARATION AND DETERMINATION OF WATER RIGHTS OF PARTIES; RESTRICTION ON THE EXERCISE THEREOF.[1]

A. Determination of Rights of Parties.

(1) Each party, except defendants The City of Los Angeles and Department of Water and Power of the City of Los Angeles, whose name is set forth in Appendix 2 and by this reference made a part hereof, and after whose name there appears under the column "Total Water Right" a figure other than "0," is the owner of and has the right to extract annually groundwater from Central Basin for beneficial use in the quantity set forth after that party's name under said column "Total Water Right" as of the close of the Administrative Year ending June 30, 2012 in accordance with the Watermaster Reports on file with this Court and the records of the Plaintiff. This tabulation does not take into account additions or subtractions from any Allowed Pumping Allocation of a producer for the 2012-2013 Administrative Year, nor other adjustments not representing change in fee title to water rights, such as leases of water rights, nor does it include the names of lessees of landowners where the lessees are exercising the water rights. The exercise of all water rights is subject, however, to the provisions of this Judgment as hereinafter contained. All of said rights are of the same legal force and effect and are without priority with reference to each other. Each party whose name is set forth in the tabulation in Appendix "2" of this

[1] Headings in the Judgment are for purposes of reference and the language of said headings do not constitute, other than for such purpose, a portion of this Judgment.

Judgment, and after whose name there appears under the column "Total Water Right" the figure "0," owns no rights to extract any groundwater from Central Basin, and has no right to extract any groundwater from Central Basin.

(2) Defendant The City of Los Angeles is the owner of the right to extract fifteen thousand (15,000) acre feet per annum of groundwater from Central Basin, but it has the right and ability to purchase or lease additional rights to extract groundwater and increase its Allowed Pumping Allocation. Defendant Department of Water and Power of the City of Los Angeles has no right to extract groundwater from Central Basin except insofar as it has the right, power, duty or obligation on behalf of defendant The City of Los Angeles to exercise the water rights in Central Basin of defendant The City of Los Angeles. The exercise of said rights is subject, however, to the provisions of this Judgment hereafter contained, including but not limited to, sharing with other parties in any subsequent decreases or increases in the quantity of extractions permitted from Central Basin, pursuant to continuing jurisdiction of the Court, on the basis that fifteen thousand (15,000) acre feet (and any increase in its Allowed Pumping Allocation) bears to the Allowed Pumping Allocations of the other parties.

(3) No party to this action is the owner of or has any right to extract groundwater from Central Basin except as herein affirmatively determined.

B. Parties Enjoined as to Quantities of Extractions.

(1) Each party, other than The State of California and The City of Los Angeles and Department of Water and Power of The City of Los Angeles, is enjoined and restrained in any Administrative Year commencing after the date this Judgment becomes final from extracting from Central Basin any quantity of Water greater than the party's Allowed Pumping Allocation as hereinafter set forth next to the name of the party in the tabulation appearing in Appendix 2 at the end of this Judgment, subject to further provisions of this Judgment. Subject to such further provisions, the officials, agents and employees of The State of

California are enjoined and restrained in any such Administrative Year from extracting from Central Basin collectively any quantity of water greater than the Allowed Pumping Allocation of The State of California as hereinafter set forth next to the name of that party in the same tabulation. Each party adjudged and declared above not to be the owner of and not to have the right to extract groundwater from Central Basin is enjoined and restrained in any Administrative Year commencing after the date this Judgment becomes final from extracting any groundwater from Central Basin, except as may be hereinafter permitted to any such party under this Judgment.

(2) The total extraction right for each party includes a party's Allowed Pumping Allocation (to the extent not transferred by agreement or otherwise), any contractual right acquired through lease or other agreement to extract or use the rights of another party, and any right to extract Stored Water or Carryover as provided in this Judgment. No party may extract in excess of 140% of the sum of (i) the party's Allowed Pumping Allocation and (ii) the party's leased water, except upon prior approval by the applicable body of Watermaster as required pursuant to Section IV(J)as provided herein. Upon application, the body specified in Section IV(J) shall approve a party's request to extract water in excess of such limit, provided there is no Material Physical Harm. Requests to extract water in excess of such limit shall be reviewed and either approved or denied within thirty (30) days of such request.

(3) Defendant The City of Los Angeles is enjoined and restrained in any Administrative Year commencing after the date this Judgment becomes final from extracting from Central Basin any quantity of water greater than fifteen thousand (15,000) acre feet or its Allowed Pumping Allocation, as recognized by the Watermaster, if it acquires additional rights to pump groundwater through purchase or lease, subject to further provisions of this Judgment, including but not limited to, sharing with other parties in any subsequent decreases or increases in

the quantity of extractions permitted from Central Basin by parties, pursuant to continuing jurisdiction of the Court, on the basis that fifteen thousand (15,000) acre feet (or the adjusted Allowed Pumping Allocation if additional rights are acquired) bears to the Allowed Pumping Allocations of the other parties. Defendant Department of Water and Power of The City of Los Angeles is enjoined and restrained in any Administrative Year commencing after the date this Judgment becomes final from extracting from Central Basin any quantity of water other than such as it may extract on behalf of defendant The City of Los Angeles, and which extractions, along with any extractions by said City, shall not exceed that quantity permitted by this Judgment to that City in any Administrative Year. Whenever in this Judgment the term "Allowed Pumping Allocation" appears, it shall be deemed to mean as to defendant The City of Los Angeles the quantity of fifteen thousand (15,000) acre feet unless the City of Los Angeles has acquired through purchase or lease right to extract additional groundwater. The limit on extraction as provided in the preceding Section I(B)(1) shall also apply to The City of Los Angeles.

(4) Any rights decreed and adjudicated herein may be transferred, assigned, licensed or leased by the owner thereof provided, however, that no such transfer shall be complete until compliance with the appropriate notice procedures established by Watermaster.

(5) Unless a party elects otherwise, production of water from the Basin for the use or benefit of the parties hereto shall be counted against the party's total extraction right in the following order: (i) Increased extractions by certain qualified water rights holders pursuant to Section IV(K), (ii) Exchange Pool production, (iii) production of Carryover water, (iv) production of leased water, , (v) production of Allowed Pumping Allocation, (vi) production of Stored Water, (vii) production of Drought Carryover (according to Watermaster's Rules), and (viii) production of water under an agreement with WRD during a period of

emergency pursuant to Section III(B)(6).

C. Parties Enjoined as to Export of Extractions.

Except as expressly authorized herein, or upon further order of the Court, all parties are enjoined and restrained from transporting water extracted from the Central Basin outside the boundaries of the Central Basin Area. For purposes of this Section, water supplied by a Water Purveyor to its customers located within any of its service areas contiguous to the Central Basin or within WRD's service area shall be exempt from the export prohibition of this Section provided that the Water Purveyor also provides water to a service area that overlies the Basin in whole or in part. The foregoing exemption is not made, nor is it related to, a determination of an underflow between the basins, a cost or benefit allocation, or any other factor relating to the allocation of the Replenishment Assessment by WRD. Further, this injunction and restriction does not apply to export of water that will take place pursuant to contractual obligations specifically identified on Appendix 4, nor does it apply to export of Stored Water not having its origin in Carryover Conversion. The export identified on Appendix 4 may continue to the extent that any such extraction does not violate any other provisions of this Judgment, provided however that no such export identified on Appendix 4 shall exceed 5,000 acre-feet in any Year.

II. APPOINTMENT OF WATERMASTER; WATERMASTER ADMINISTRATION PROVISIONS.

The particular bodies specified below are, jointly, hereby appointed Watermaster, for an indefinite term, but subject to removal by the Court, to administer this Judgment. Such bodies, which together shall constitute the "Watermaster," shall have restricted powers, duties and responsibilities as specified herein, it being the court's intention that particular constituent bodies of Watermaster have only limited and specified powers over certain aspects of the administration of this Judgment. The Outgoing Watermaster will exercise reasonable diligence in the complete transition of Watermaster duties and responsibilities within a reasonable time

following entry of this order, and to make available to the new Watermaster all records concerning Watermaster activities. The chair of the Central Basin Water Rights Panel (defined below) shall thereafter represent the Watermaster before the Court.

A. The Administrative Body.

Plaintiff Water Replenishment District of Southern California ("WRD") is appointed the Administrative Body of the Central Basin Watermaster ("Administrative Body"). In order to assist the Court in the administration of the provisions of this Judgment and to keep the Water Rights Panel and the Court fully advised in the premises, the Administrative Body shall have the following duties, powers and responsibilities:

(1) To Require Reports, Information and Records.

In consultation with the Water Rights Panel, the Administrative Body shall require the parties to furnish such reports, information and records as may be reasonably necessary to determine compliance or lack of compliance by any party with the provisions of this Judgment.

(2) Storage Projects.

The Administrative Body shall exercise such powers as may be specifically granted to it under this Judgment with regard to Stored Water.

(3) Annual Report.

The Administrative Body shall prepare, on or before the 15th day of the fourth month following the end of the preceding Administrative Year, an annual report for the consideration of the Water Rights Panel. The Chair of the Water Rights Panel shall submit to the Court either (1) the annual report prepared by the Administrative Body, following the adoption by the Water Rights Panel, or (2) an annual report separately prepared and adopted by the Water Rights Panel. The annual report prepared by the Administrative Body shall be limited to the following, unless otherwise required by the Court:

(a) Groundwater extractions

(b) Storage Accounts maintained by each party

(c) Status of the Regional Disadvantaged Community Incentive Program, if approved by the Court

(d) Exchange Pool operation

(e) Use of Imported Water

(f) Violations of this Judgment and corrective action taken by bodies of Watermaster having jurisdiction as provided in this Judgment

(g) Change of ownership of Total Water Rights

(h) Watermaster administration costs

(i) Water spread or imported into the Basin

(j) Water Augmentation Projects

(k) Whether the Administrative Body has become aware of the development of a Material Physical Harm, or imminent threat of the development of a Material Physical Harm, as required pursuant to Section IV(B) of this Judgment

(l) Other matters as agreed with the Water Rights Panel

(m) Recommendations, if any.

In consultation with the Water Rights Panel, the Administrative Body shall provide reasonable notice to all parties of all material actions or determinations by Watermaster or any constituent body thereof, and as otherwise provided by this Third Amended Judgment.

(4) Annual Budget and Appeal Procedure in Relation Thereto.

By April 1 of each Administrative Year, the Administrative Body shall prepare a proposed administrative budget for the subsequent year stating the anticipated expense for performing the administrative functions specified in this Judgment (the "Administrative Budget"). The Administrative Body shall mail a copy of the proposed Administrative Budget to each of the Parties at least 60 days

before the beginning of each Administrative Year. The Administrative Budget mailed to the Parties shall provide sufficient detail in the Administrative Budget to demonstrate a separation in accounting between the Administrative Budget and WRD's Replenishment Assessment and operating budget. For the first Administrative Year of operation under this Third Amended Judgment, if the Administrative Body is unable to meet the above time requirement, the Administrative Body shall mail said copies as soon as possible. The first year the Administrative Budget is prepared, the amount of that budget shall not exceed an amount equal to fifty percent (50%) of the 2012-2013 charge for Watermaster service for the Central Basin collected from Parties by the California Department of Water Resources. At all times, the Administrative Body shall maintain a separation in accounting between the Administrative Budget and WRD's Replenishment Assessment and operating budget. All increases in future budgets for the Administrative Body above the amount set forth above shall be subject to approval by the Water Rights Panel following a public meeting to be held prior to the beginning of the Administrative Year, provided that the approved budget shall not be less than the amount of the first-year budget for the Administrative Body, except upon further order of the Court. Any administrative function by WRD already paid for by the Replenishment Assessment shall not be added as an expense in the Administrative Budget. Similarly, any expense paid for by the Administrative Budget shall not be added to WRD's operating budget, or otherwise added to the calculation of the Replenishment Assessment. While WRD may approve the proposed Administrative Budget at the same meeting in which WRD adopts its annual Replenishment Assessment or annual budget, the Administrative Body's budget shall be separate and distinct from the Replenishment Assessment imposed pursuant to Water 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. If any Party hereto has any objection to the Administrative Budget, it shall present the same in writing to Watermaster within 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.

The amount of the Administrative Budget to be assessed to each party shall be determined as follows: If that portion of the final budget to be assessed to the Parties is equal to or less than $20.00 per party then the cost shall be equally apportioned among the Parties. If that portion of the final budget to be assessed to Parties is greater than $20.00 per party then each Party shall be assessed a minimum of $20.00. The amount of revenue expected to be received through the foregoing minimum assessments shall be deducted from that portion of the final budget to be assessed to the Parties and the balance shall be assessed to the Parties having Allowed Pumping Allocation, such balance being divided among them proportionately in accordance with their respective Allowed Pumping Allocation.

Payment of the assessment provided for herein, subject to adjustment by the Court as provided, shall be made by each such party prior to beginning of the Administrative Year to which the assessment relates, or within 40 days after the mailing of the tentative budget, whichever is later. If such payment by any Party is not made on or before said date, the Administrative Body shall add a penalty of 5% thereof to such party's statement. Payment required of any Party hereunder

may be enforced by execution issued out of the Court, or as may be provided by order hereinafter made by the Court, or by other proceedings by the Watermaster or by any Party on the Watermaster's behalf.

Any money unexpended at the end of any Administrative Year shall be applied to the budget of the next succeeding Administrative Year. The Administrative Body shall maintain no reserves.

Notwithstanding the above, no part of the budget of the Administrative Body shall be assessed to WRD or to any Party who has not extracted water from Central Basin for a period of two successive Administrative Years prior to the Administrative Year in which the tentative budget should be mailed by the Administrative Body under the provisions of this subparagraph (4).

(5) Rules.

The Administrative Body may adopt, and amend from time to time, rules consistent with this Judgment as may be reasonably necessary to carry out duties under the provisions of this Judgment within its particular area of responsibility. The Body shall adopt its first set of rules and procedures within three (3) months following entry of this Third Amended Judgment. The rules shall be effective on such date after the mailing thereof to the Parties as is specified by the Body, but not sooner than thirty (30) days after such mailing.

B. The Central Basin Water Rights Panel.

The Central Basin Water Rights Panel of the Central Basin Watermaster ("Water Rights Panel") shall consist of seven (7) members, each of which is a Party. The term of each member of the Panel, with the exception of the seat held by the Small Water Producers Group, as provided herein, shall be limited to four years. The Court will make the initial appointments to the Central Basin Water Rights Panel upon motion by Parties consistent with the categories set forth below at or about the time of entry of this Third Amended Judgment, and shall establish a procedure for the staggered terms of such members. Thereafter, elections of members of the Panel shall be held as provided herein. One (1) such member of the Water Rights Panel shall be

elected by vote of the Small Water Producers Group conducted in accordance with its own procedures, provided such Group, as of the date of the election, consists of at least five (5) members who are Water Purveyors. One (1) such member of the Water Rights Panel shall be elected by vote of Parties with Allowed Pumping Allocation of less than 5,000 acre-feet who are not members of the Small Water Producers Group or, if the Small Water Producers Group does not then qualify following a continuous six-month period of non-qualification as provided herein, then two (2) such members shall be so selected. One (1) such member of the Water Rights Panel shall be elected by vote of Parties with Allowed Pumping Allocation of at least 5,000 acre-feet but less than 10,000 acre-feet. Three (3) such members of the Water Rights Panel shall be elected by vote of Parties with Allowed Pumping Allocation of 10,000 acre-feet or greater. One (1) such member of the Water Rights Panel shall be elected by a vote of all holders of Allowed Pumping Allocations, with each such holder being entitled to one vote, such member to be elected by a plurality of the votes cast, following a nomination procedure to be established in the Water Rights Panel's rules. In the event of a tie, the seventh member shall be determined as may be provided in the Water Rights Panel's rules, or otherwise by the court. Except as otherwise provided in this Section, each such rights holder shall have the right to cast a total number of votes equal to the number of acre-feet of its Allowed Pumping Allocation (rounded to the next highest whole number). With the exception of voting for the seventh member, Parties shall be entitled to vote only for candidates within the category(ies) that represent that Party's Allowed Pumping Allocation. For example, parties who are members of the Small Water Producers Group are entitled to vote only for the Small Water Producer Group member and the seventh member of the Water Rights Panel, and so on. Parties are not permitted to split votes. The results of such election shall be reported to the Court for confirmation of each member's appointment to the Water Rights Panel of Watermaster. The elected members of the Water Rights Panel shall be those candidates receiving the highest vote total in their respective categories. The Water Rights Panel shall hold its first meeting within thirty (30) days of the date this Third Amended Judgment becomes final. The Water Rights Panel shall develop rules for its operation consistent with this Judgment. The Water Rights Panel shall take action, including the

election of its Chair, by majority vote of its members. Election of the Chair shall occur every two years, with no Party serving as Chair for consecutive terms. Members of the Water Rights Panel shall serve without compensation. All references to Annual Pumping Allocation, as used herein, are as determined by the last published Watermaster report.

(1) The Water Rights Panel shall have the following duties and responsibilities:

(a) Enforcement of Adjudicated Rights. As against the other bodies of Watermaster, the Water Rights Panel shall have exclusive authority to move the Court to take such action as may be necessary to enforce the terms of the Judgment with regard to the extraction of Allowed Pumping Allocation and the maintenance of adjudicated groundwater extraction rights as provided in this Judgment.

(b) Requirement of Measuring Devices. The Water Rights Panel shall require all parties owning or operating any facilities for the extraction of groundwater from Central Basin to install and maintain at all times in good working order at such party's own expense, appropriate measuring devices at such times and as often as may be reasonable under the circumstances and to calibrate or test such devices.

(c) Inspections by Watermaster. The Water Rights Panel may make inspections of groundwater production facilities, including aquifer storage and recovery facilities, and measuring devices at such times and as often as may be reasonable under the circumstances and to calibrate or test such devices.

(d) Reports. Annually, the Water Rights Panel, in cooperation with the Administrative Body, shall report to the Court, concerning any or all of the following:

(i) Groundwater extractions

(ii) Exchange Pool operation

(iii) Status of the Regional Disadvantaged Community Incentive Program, if approved by the Court

(iv) Violations of this Judgment and corrective action taken or sought

(v) Change of ownership of Total Water Rights

(vi) Assessments made by the Water Rights Panel and any costs incurred

(vii) Whether the Water Rights Panel has become aware of the development of a Material Physical Harm, or imminent threat of the development of a Material Physical Harm, as required pursuant to Section IV(B) of this Judgment

(viii) Recommendations, if any.

As provided in Section II.A(3), the Water Rights Panel may adopt the annual report prepared by the Administrative Body, and submit the same to the Court, or the Water Rights Panel may prepare, adopt and submit to the Court a separate report. The Chair of the Water Rights Panel shall be responsible for reporting to the Court concerning adjudicated water rights issues in the Basin.

(2) Assessment. The Water Rights Panel shall assess holders of water rights within the Central Basin an annual amount not to exceed $1.00 per acre-foot of Allowed Pumping Allocation, by majority vote of the members of the Water Rights Panel. The body may assess a higher amount, subject to being overruled by Majority Protest. The assessment is intended to cover any costs associated with reporting responsibilities, any Judgment enforcement action, and the review of storage projects as a component of the "Storage Panel" as provided below. It is anticipated that this body will rely on the Administrative Body's staff for the functions related to the Administrative Body's responsibilities, but the

Water Rights Panel may engage its own staff if required in its reasonable judgment. Assessments will constitute a lien on the water right assessed, enforceable as provided in this Judgment.

(3) Rules. The Water Rights Panel may adopt and amend from time to time, at an open meeting of that Panel, rules consistent with this Judgment as may be reasonably necessary to carry out duties under the provisions of this Judgment within its particular area of responsibility. The Panel shall adopt its first set of rules and procedures within three (3) months following entry of this Third Amended Judgment. The rules shall be effective on such date after the mailing thereof to the Parties as is specified by the Panel, but not sooner than thirty (30) days after such mailing.

C. The Storage Panel.

The Storage Panel of the Central Basin Watermaster ("Storage Panel") shall be a bicameral body consisting of (i) the Water Rights Panel and (ii) the Board of Directors of WRD. Action by the Storage Panel shall require separate action by a majority of each of its constituent bodies. The Storage Panel shall have the duties and responsibilities specified with regard to the Provisions for the Storage and Extraction of Stored Groundwater as set forth in Part IV and the other provisions of this Judgment.

D. Use of Facilities and Data Collected by Other Governmental Agencies.

Where practicable, the three bodies constituting the Central Basin Watermaster should not duplicate the collection of data relative to conditions of the Central Basin which is then being collected by one or more governmental agencies, but where necessary each such body may collect supplemental data. Where it appears more economical to do so, the Watermaster and its constituent bodies are directed to use such facilities of other governmental agencies as are available to it under either no cost or cost agreements with respect to the receipt of reports, billings to parties, mailings to parties, and similar matters.

E. Appeal from Watermaster Decisions.

Appeals concerning the budget proposed by the Administrative Body shall be governed by Section II(A)(4) of this Judgment. Appeals concerning decisions by the Storage Panel shall be governed by Section IV(P) of this Judgment. With respect to all other objections by a Party to any action or decision by the Watermaster, such objections will be governed by this Section II(E). Any party interested therein who objects to any rule, determination, order or finding made by the Watermaster or any constituent body thereof, may object thereto in writing delivered to the Administrative Body within 30 days after the date the Watermaster, or any constituent body thereof, mails written notice of the making of such rule, determination, order or finding. Within 30 days after such delivery the Watermaster, or the affected constituent body thereof, shall consider said objection and shall amend or affirm his rule, determination, order or finding and shall give notice thereof to all parties. Any such party may file with the Court within 60 days from the date of said notice any objection to such rule, determination, order or finding of the Watermaster, or any constituent body thereof, and bring the same on for hearing before the Court at such time as the Court may direct, after first having served said objection upon all other parties. The Court may affirm, modify, amend or overrule any such rule, determination, order or finding of the Watermaster or its affected constituent body. Any objection under this paragraph shall not stay the rule, determination, order or finding of the Watermaster. However, the Court, by *ex parte* order, may provide for a stay thereof on application of any interested party on or after the date that any such party delivers to the Watermaster any written objection.

F. Effect of Non-Compliance by Watermaster With Time Provisions.

Failure of the Watermaster to perform any duty, power or responsibility set forth in this Judgment within the time limitation herein set forth shall not deprive the Watermaster or its applicable constituent body of authority to subsequently discharge such duty, power or responsibility, except to the extent that any such failure by the Watermaster may have rendered some otherwise required act by a party impossible.

G. Limitations on Administrative Body.

WRD shall not acquire Central Basin water rights, nor lease Central Basin water or water rights to or from any Party or third party. However, the foregoing shall (i) not be interpreted to restrict WRD's ability or authority to acquire water from any source for purposes of Artificial or Natural Replenishment or for water quality activities, and (ii) not restrict WRD's authority under California Water Code Section 60000 et seq. to develop reclaimed, recycled or remediated water for groundwater replenishment activities.

H. Regional Disadvantaged Communities Incentive Program.

The Water Rights Panel, acting through the General Manager of WRD, shall develop a Regional Disadvantaged Communities Incentive Program, pursuant to which a portion of the Community Storage Pool is reserved for the benefit of Disadvantaged Communities within the Central Basin. Nothing in this Judgment, nor the establishment of such a program, shall diminish the rights otherwise granted to Parties under this Judgment, including but not limited to the right to place water in storage in the Community Storage Pool. The Water Rights Panel shall meet within thirty (30) days of its formation to identify and consider potential third-party independent consultants who may be retained to design the program, including those recommended by the General Manager of WRD. The Water Rights Panel shall select a consultant within thirty (30) days thereafter. In the event the General Manager of WRD objects to the selected consultant, in writing, then the Water Rights Panel and the General Manager of WRD shall exchange a list of no more than two (2) consultants each for further consideration. If the Water Rights Panel and the General Manager of WRD are unable to agree to a consultant within an additional thirty (30) days, then the Chair of the Water Rights Panel shall file a request with the Court for an order appointing a consultant. Upon selection of a third-party independent consultant, whether through the Water Rights Panel process or the court process identified herein, the consultant shall design a detailed program and deliver it to the Water Rights Panel within ninety (90) days of the consultant's retention. All costs associated with design of the program shall be paid for out of the Water Rights

Panel's assessment, as provided in Section II.B(2). The Water Rights Panel shall present the program to the Court for its review and approval within one year of entry of this Third Amended Judgment. If approved by the Court, the Water Rights Panel, acting through the General Manager of WRD, shall be responsible for administration of the Regional Disadvantaged Communities Incentive Program, including insuring that any funds generated through the program benefit Disadvantaged Communities. Any Storage Project established pursuant to this Program shall have priority to use up to 23,000 acre-feet of Available Storage within the Community Storage Pool, as further provided in Section IV.E(2). Watermaster shall report to the Court concerning such program as a part of its annual report.

III. PROVISIONS FOR PHYSICAL SOLUTION TO MEET THE WATER REQUIREMENTS IN CENTRAL BASIN.

In order to provide flexibility to the injunction set forth in Part I of the Judgment, and to assist in a physical solution to meet water requirements in Central Basin, the injunction so set forth is subject to the following provisions.

A. Carryover of Portion of Allowed Pumping Allocation.

(1) Amount of Carryover.

Each party adjudged to have a Total Water Right or water rights and who, during a particular Administrative Year, does not extract from Central Basin a total quantity equal to such party's Allowed Pumping Allocation for the particular Administrative Year, less any allocated subscriptions by such party to the Exchange Pool, or plus any allocated requests by such party for purchase of Exchange Pool water, is permitted to carry over (the "One Year Carryover") from such Administrative Year the right to extract from Central Basin in the next succeeding Administrative Year so much of said total quantity as it did not extract in the particular Administrative Year, not to exceed (i) the Applicable Percentage of such party's Allowed Pumping Allocation for the particular Administrative

Year, or 20 acre-feet, whichever of said percentage or 20 acre-feet is the larger, less (ii) the total quantity of water then held in that party's combined Individual and Community Storage accounts, as hereinafter defined, but in no event less than 20% of the party's Allowed Pumping Allocation for the particular Administrative Year. For purposes of this Section, the "Applicable Percentage" shall be as follows for the years indicated:

For the Administrative Year in which this Third Amended Judgment becomes final:	30%
For the next Administrative Year:	40%
For the next Administrative Year:	50%
For the next Administrative Year and years following:	60%

(2) Conversion of Carryover to Stored Water.

A party having Carryover may, from time to time, elect to convert all or part of such party's Carryover to Stored Water as authorized herein ("Carryover Conversion") upon payment of the Replenishment Assessment to WRD. Such Stored Water shall be assigned to that party's Individual Storage Allocation, if available, and otherwise to the Community Storage Pool.

(3) Declared Water Emergency.

The Board of Directors of WRD may, from time to time, declare a water emergency upon a determination that conditions within the Central Basin relating to natural and imported water supplies are such that, without implementation of the Declared Water Emergency provisions of this subsection, the water resources of the Central Basin risk degradation. In making such declaration, the Board of Directors shall consider any information and requests provided by water producers, purveyors and other affected entities and shall, for that purpose, hold a public hearing in advance of such declaration. A Declared Water Emergency

shall extend to the end of the Administrative Year during which such resolution is adopted, unless sooner ended by similar resolution.

(4) Drought Carryover.

Following the declaration of a Declared Water Emergency and until the Declared Water Emergency ends either by expiration or by resolution of the Board of Directors of WRD, each party adjudged to have a Total Water Right or water rights and who, during a particular Administrative Year, does not extract from Central Basin a total quantity equal to such party's Allowed Pumping Allocation for the particular Administrative Year, less any allocated subscriptions by such party to the Exchange Pool, or plus any allocated requests by such party for purchase of Exchange Pool water, is permitted to carry over (the "Drought Carryover") from such Administrative Year the right to extract from Central Basin so much of said total quantity as it did not extract during the period of the Declared Water Emergency, to the extent such quantity exceeds the One Year Carryover, not to exceed an additional 35% of such party's Allowed Pumping Allocation, or additional 35 acre feet, whichever of said 35% or 35 acre feet is the larger, less the amount of such party's Stored Water. Carryover amounts shall first be allocated to the One Year Carryover and any remaining carryover amount for that year shall be allocated to the Drought Carryover.

(5) Accumulated Drought Carryover.

No further amounts shall be added to the Drought Carryover following the end of the Declared Water Emergency, provided however that in the event another Declared Water Emergency is declared, additional Drought Carryover may be added, to the extent such additional Drought Carryover would not cause the total Drought Carryover to exceed the limits set forth above. The Drought Carryover shall be supplemental to and shall not affect any previous drought carryover acquired by a party pursuant to previous order of the court.

B. When Over-Extractions May be Permitted.

(1) Underestimation of Requirements for Water.

Any party hereto without Stored Water, having an Allowed Pumping Allocation, and not in violation of any provision of this Judgment may extract in an Administrative Year an additional quantity of water not to exceed: (a) 20% of such party's Allowed Pumping Allocation or 20 acre feet, whichever is greater, and (b) any amount in addition thereto which may be approved in advance by the Water Rights Panel of Watermaster.

(2) Reductions in Allowed Pumping Allocations in Succeeding Years to Compensate for Permissible Overextractions.

Any such party's Allowed Pumping Allocation for the following Administrative Year shall be reduced by the amount over-extracted pursuant to paragraph 1 above, provided that if the Water Rights Panel determines that such reduction in the party's Allowed Pumping Allocation in one Administrative Year will impose upon such a party an unreasonable hardship, the said reduction in said party's Allowed Pumping Allocation shall be prorated over a period of five (5) Administrative Years succeeding that in which the excessive extractions by the party occurred. Application for such relief to the Water Rights Panel must be made not later than the 40th day after the end of the Administrative Year in which such excessive pumping occurred. The Water Rights Panel shall grant such relief if such over-extraction, or any portion thereof, occurred during a period of Declared Water Emergency.

(3) Reductions in Allowed Pumping Allocations for the Next Succeeding Administrative Year to Compensate for Overpumping.

Whenever, pursuant to Section III(B)(1), a party over-extracts in excess of such party's Allowed Pumping Allocation plus that party's available One-Year Carryover and any Stored Water held by that party, and such excess has not been approved in advance by the Water Rights Panel, then such party's Allowed Pumping Allocation for the following Administrative Year shall be reduced by an

amount equivalent to its total over-extractions in the particular Administrative Year in which it occurred.

(4) Reports of Certain Over-extractions to the Court.

Whenever a party over-extracts in excess of 20% of such party's Allowed Pumping Allocation for the particular Administrative Year plus that party's available One-Year Carryover and any Stored Water held by that party, without having obtained prior approval of the Water Rights Panel, such shall constitute a violation of the Judgment and the Water Rights Panel shall make a written report to the Court for such action as the Court may deem necessary. Such party shall be subject to such injunctive and other processes and action as the Court might otherwise take with regard to any other violation of such Judgment.

(5) Effect of Over-extractions on Rights.

Any party who over-extracts from Central Basin in any Administrative Year shall not acquire any additional rights by reason of such over-extractions; nor shall any required reductions in extractions during any subsequent years reduce the Total Water Right or water rights of any party to the extent said over-extractions are in compliance with paragraph 1 above.

(6) Pumping Under Agreement With Plaintiff During Periods of Emergency.

Plaintiff WRD overlies Central Basin and engages in activities of replenishing the groundwaters thereof. Plaintiff by resolution has appropriated for use during emergencies the quantity of 17,000 acre feet of imported and reclaimed water replenished by it into Central Basin, and pursuant to such resolution Plaintiff reserves the right to use or cause the use of such quantity during such emergency periods for the benefit of Water Purveyors.

(a) Notwithstanding any other provision of this Judgment, parties who are Water Purveyors (including successors in interest) are authorized to enter into agreements with Plaintiff for extraction of a

portion of Plaintiff's 17,000 acre-feet of appropriated water, in excess of their respective Allowed Pumping Allocations for the particular Administrative Year when the following conditions are met:

(i) Plaintiff is in receipt of a resolution of the Board of Directors of the Metropolitan Water District of Southern California ("MWD") that there is an actual or immediately threatened temporary shortage of MWD's imported water supply compared to MWD's needs, or a temporary inability to deliver MWD's imported water supply throughout its area, which will be alleviated by overpumping from Central Basin.

(ii) The Board of Directors of both Plaintiff and Central Basin Municipal Water District by resolutions concur in the resolution of MWD's Board of Directors, and the Board of Directors of Plaintiff finds in its resolution that the average minimum elevation of water surface among those wells in the Montebello Forebay of the Central Basin designated as Los Angeles County Flood Control District Wells Nos. 1601T, 1564P, 1615P, and 1626L, is at least 43.7 feet above sea level. This computation shall be based upon the most recent "static readings" taken, which shall have been taken not more than four weeks prior. Should any of the wells designated above become destroyed or otherwise be in a condition so that readings cannot be made, or should the owner prevent their use for such readings, the Board of Directors of the Plaintiff may, upon appropriate engineering recommendation, substitute such other well or wells as it

may deem appropriate.

(iii) In said resolution, Plaintiff's Board of Directors sets a public hearing, and notice of the time, place and date thereof (which may be continued from time to time without further notice) is given by First Class Mail to the current designees of the Parties, filed and served in accordance with Section VI(C) of this Judgment. Said notice shall be mailed at least five (5) days before the scheduled hearing date.

(iv) At said public hearing, parties (including successors in interest) are given full opportunity to be heard, and at the conclusion thereof the Board of Directors of Plaintiff by resolution decides to proceed with agreements under this Section III(B)(6).

(b) All such agreements shall be subject to the following requirements, and such others as Plaintiff's Board of Directors shall require:

(i) They shall be of uniform content except as to quantity involved, and any special provisions considered necessary or desirable with respect to local hydrological conditions or good hydrologic practice.

(ii) They shall be offered to all Water Purveyors, excepting those which Plaintiff's Board of Directors determines should not overpump because such overpumping would occur in undesirable proximity to a sea water barrier project designed to forestall sea water intrusion, or within or in undesirable proximity to an area within Central Basin wherein groundwater levels are at an

elevation where overpumping is under all the circumstances then undesirable.

(iii) The maximum terms for the agreements shall be four (4) months, which agreements shall commence on the same date and end on the same date (and which may be executed at any time within the four-month period), unless an extension thereof is authorized by the Court, under Part V of this Judgment.

(iv) They shall contain provisions requiring that the Water Purveyor executing the agreement pay to the Plaintiff a price in addition to the applicable replenishment assessment determined on the following formula. The normal price per acre-foot of Central Basin Municipal Water District's (CBMWD) treated domestic and municipal water, as "normal" price of such category of water is defined in Section III(C)(10) (price to be paid for Exchange Pool Water) as of the beginning of the contract term less the deductions set forth in said paragraph 10 for the Administrative Year in which the contract term commences. The agreement shall provide for adjustments in the first of said components for any proportional period of the contract term during which the CBMWD said normal price is changed, and if the agreement straddles two administrative years, the said deductions shall be adjusted for any proportionate period of the contract term in which the amount thereof or of either subcomponent changes for purposes of said paragraph 10. Any price for a partial acre-foot shall be computed pro rata. Payments shall be due and

payable on the principle that over extractions under the agreement are of the last water pumped in the Administrative Year, and shall be payable as the agreement shall provide.

(v) They shall contain provisions that: (1) All of such agreements (but not less than all) shall be subject to termination by Plaintiff if, in the Judgment of Plaintiff's Board of Directors, the conditions or threatened conditions upon which they were based have abated to the extent over extractions are no longer considered necessary; and (2) that any individual agreement or agreements may be terminated if the Plaintiff's Board of Directors finds that adverse hydrologic circumstances have developed as a result of over extractions by any Water Purveyor(s) which have executed said agreements, or for any other reason that Plaintiff's Board of Directors finds good and sufficient.

(c) Other matters applicable to such agreements and overpumping thereunder are as follows, without need for express provisions in the agreements;

(i) The quantity of overpumping permitted shall be additional to that which the Water Purveyor could otherwise overpump under this Judgment.

(ii) The total quantity of permitted overpumping under all said agreements during said four months shall not exceed seventeen thousand (17,000) acre feet, but the individual Water Purveyor shall not be responsible or affected by any violation of this requirement. That total is additional to over extractions otherwise permitted under

this Judgment.

(iii) Only one four month period may be utilized by Plaintiff in entering into such agreements, as to any one emergency or continuation thereof declared by MWD's Board of Directors under Section III(B)(6)(a).

(iv) If any party claims it is being damaged or threatened with damage by the over extractions by any party to such an agreement, the first party or the Water Rights Panel may seek appropriate action of the Court for termination of any such agreement upon notice of hearing to the party complaining, to the party to said agreement, to the plaintiff, and to any parties who have filed a request for special notice. Any termination shall not affect the obligation of the party to make payments under the agreement for over extractions which did occur thereunder.

(v) Plaintiff shall maintain separate accounting of the proceeds from payments made pursuant to agreements entered into under this Part. Said fund shall be utilized solely for purposes of replenishment in replacement of waters in Central Basin and West Basin. Plaintiff shall as soon as practicable cause replenishment in Central Basin by the amounts to be overproduced pursuant to this Paragraph 6, whether through spreading, injection, or in lieu agreements.

(vi) Over extractions pursuant to the agreements shall not be subject to the "make up" provisions of the Judgment as amended, provided that if any party fails to make payments as required by the agreement, Plaintiff may

require such "make up" under Section III(B)(3) of this Judgment.

(vii) A Water Purveyor under any such agreement may, and is encouraged to enter into appropriate arrangements with customers who have water rights in Central Basin under or pursuant to this Judgment whereby the Water Purveyor will be assisted in meeting the objectives of the agreement.

(7) Exemption for Extractors of Contaminated Groundwater.

Any party herein may petition WRD for a Non-consumptive Water Use Permit as part of a project to remedy or ameliorate groundwater contamination. If the petition is granted as set forth in this paragraph, the petitioner may extract the groundwater as permitted hereinafter, without the production counting against the petitioner's production rights.

(a) If the Board of WRD determines by Resolution that there is a problem of groundwater contamination that a proposed program will remedy or ameliorate, an operator may make extractions of groundwater to remedy or ameliorate that problem without the production counting against the petitioner's production rights if the water is not applied to beneficial surface use, its extractions are made in compliance with all the terms and conditions of the Board Resolution, and the Board has determined in the Resolution either of the following:

(i) The groundwater to be extracted is unusable and cannot be economically treated or blended for use with other water.

(ii) The proposed program involves extraction of usable water in the same quantity as will be returned to the

underground without degradation of quality.

(b) The Resolution may provide those terms and conditions the Board deems appropriate, including, but not limited to, restrictions on the quantity of the extractions to be so exempted, limitations on time, periodic reviews, requirement of submission of test results from a Board-approved laboratory, and any other relevant terms or conditions.

(c) Upon written notice to the operator involved, the Board may rescind or modify its Resolution. The rescission or modification of the Resolution shall apply to groundwater extractions occurring more than ten (10) days after the rescission or modification. Notice of rescission or modification shall be either mailed first class mail, postage prepaid, at least two weeks prior to the meeting of the Board at which the rescission or modification will be made to the address of record of the operator or personally delivered two weeks prior to the meeting.

(d) The Board's decision to grant, deny, modify or revoke a permit or to interrupt or stop a permitted project may be appealed to this court within thirty days of the notice thereof to the applicant and upon thirty days' notice to the designees of all parties herein.

(e) WRD shall monitor and periodically inspect the project for compliance with the terms and conditions for any permit issued pursuant to these provisions.

(f) No party shall recover costs from any other party herein in connection with determinations made with respect to this Part.

(8) "Call" on Carryover Converted to Stored Water.

Where any Party has elected, as permitted by Section III(A)(2), to convert Carryover to Stored Water, any other Party which has not, within the previous ten (10) years, been granted approval to extract Carryover Conversion under this

Section III(B)(8) more than five (5) times, may apply to the Storage Panel for the right to extract all or a portion of that Carryover Conversion in the year such Conversion occurs. The Storage Panel shall grant such request, providing there is no Material Physical Harm, if it determines that leased groundwater to meet the applicant's needs within the Basin cannot be obtained for less than forty-five percent (45%) of MWD's Imported Water rate for delivery of untreated water to the Central Basin spreading facilities (which rate is presently MWD's "Full Service Untreated Volumetric Cost, Tier 1"), and that the applicant will fully extract its Allowed Pumping Allocation, Carryover, and Stored Water, if any, in addition to its permitted overextraction under Section III(B)(1), prior to accessing such Carryover Conversion.

Upon such approval, the applicant may thereafter extract such water as provided herein. A Party so extracting groundwater shall fully restore such extracted water (either through under-extraction of its rights or through importing water) during the five-year period following the Year in which the extraction under this Section occurs. Otherwise, the extracting Party shall pay to the Watermaster an amount equal to 100% of MWD's Imported Water rate for purchase and delivery of untreated water to the Central Basin spreading facilities (which rate is presently MWD's "Full Service Untreated Volumetric Cost, Tier 1") whether or not such water is available that year, for the year during which is the fifth anniversary of the year during which such Carryover Conversion extraction occurs, multiplied by the amount of Carryover Conversion so extracted and not restored during such five-year period. Payment shall be made within thirty (30) days of demand by Watermaster. No Replenishment Assessment shall be due on Carryover Conversion so extracted. However, the Party must deposit with the Watermaster an amount equal to the Replenishment Assessment that would otherwise be imposed by WRD upon such extraction. If the party restores the water within the 5-year repayment period, then the Watermaster shall

promptly return the deposit to the Party, without interest. If the Party does not restore the water within the 5-year repayment period, the deposit shall be credited towards the Party's obligation to pay 100% of MWD's Imported Water rate as required herein.

Should there be multiple requests to so extract Carryover Conversion in the same year, the Storage Panel shall allocate such extraction right such that each requesting party may extract a pro rata portion of the available Carryover Conversion for that year. No party may extract in excess of 2,500 acre feet of groundwater pursuant to this Section III(B)(8) in a single Year. Amounts paid to Watermaster hereunder shall be used by WRD solely for purchase of water for replenishment in the Basin. Watermaster, through the Storage Panel, shall give reasonable notice to the Parties of any application to so extract Carryover Conversion in such manner as the Storage Panel shall determine, including, without limitation, notice by electronic mail or by website posting, at least ten (10) days prior to consideration of any such application.

C. Exchange Pool Provisions.

(1) Definitions.

For purposes of these Exchange Pool provisions, the following words and terms have the following meanings:

(a) "Exchange Pool" is the arrangement hereinafter set forth whereby certain of the parties, ("Exchangees") may, notwithstanding the other provisions of the Judgment, extract additional water from Central Basin to meet their needs, and certain other of the parties ("Exchangors"), reduce their extractions below their Allowed Pumping Allocations in order to permit such additional extractions by others.

(b) "Exchangor" is one who offers, voluntarily or otherwise, pursuant to subsequent provisions, to reduce its extractions below its Allowed Pumping Allocation in order to permit such additional

extractions by others.

(c) "Exchangee" is one who requests permission to extract additional water from Central Basin.

(d) "Undue hardship" means unusual and severe economic or operational hardship, other than that arising (i) by reason of any differential in quality that might exist between water extracted from Central Basin and water available for importation or (ii) by reason of any difference in cost to a party in subscribing to the Exchange Pool and reducing its extractions of water from Central Basin in an equivalent amount as opposed to extracting any such quantity itself.

(2) Parties Who May Purchase Water Through the Exchange Pool.

Any party not having existing facilities for the taking of imported water as of the beginning of any Administrative Year, and any party having such facilities as of the beginning of any Administrative Year who is unable, without undue hardship, to obtain, take, and put to beneficial use, through its distribution system or systems existing as of the beginning of the particular Administrative Year, imported water in a quantity which, when added to its Allowed Pumping Allocation for that particular Administrative Year, will meet its estimated needs for that particular Administrative Year, may purchase water from the Exchange Pool, subject to the limitations contained in this Section III(C) (Subpart "C" hereinafter).

(3) Procedure for Purchasing Exchange Pool Water.

Not later than the 40th day following the commencement of each Administrative Year, each such party desiring to purchase water from the Exchange Pool shall file with the Watermaster a request to so purchase, setting forth the amount of water in acre feet that such party estimates that it will require during the then current Administrative Year in excess of the total of:

(a) Its Allowed Pumping Allocation for that particular

Administrative Year; and

(b) The imported water, if any, which it estimates it will be able, without undue hardship, to obtain, take and put to beneficial use, through its distribution system or systems existing as of the beginning of that particular Administrative Year.

Any party who as of the beginning of any Administrative Year has existing facilities for the taking of imported water and who makes a request to purchase from the Exchange Pool must provide with such request substantiating data and other proof which, together with any further data and other proof requested by the Water Rights Panel, establishes that such party is unable without undue hardship, to obtain, take and put to beneficial use through its said distribution system or systems a sufficient quantity of imported water which, when added to its said Allowed Pumping Allocation for the particular Administrative Year, will meet its estimated needs. As to any such party, the Water Rights Panel shall make a determination whether the party has so established such inability, which determination shall be subject to review by the court under the procedure set forth in Part II of this Judgment. Any party making a request to purchase from the Exchange Pool shall either furnish such substantiating data and other proof, or a statement that such party had no existing facilities for the taking of imported water as of the beginning of that Administrative Year, and in either event a statement of the basis for the quantity requested to be purchased.

(4) Subscriptions to Exchange Pool:

(a) Required Subscription. Each party having existing facilities for the taking of imported water as of the beginning of any Administrative Year hereby subscribed to the Exchange Pool for purposes of meeting Category (a) requests thereon, as more particularly defined in paragraph 5 of this Subpart C, twenty percent

(20%) of its Allowed Pumping Allocation, or the quantity of imported water which it is able, without undue hardship, to obtain, take and put to beneficial use through its distribution system or systems existing as of the beginning of the particular Administrative Year in addition to such party's own estimated needs for imported water during that Administrative Year, whichever is the lesser. A party's subscription under this subparagraph (a) and subparagraph (b) of this paragraph 4 is sometimes hereinafter referred to as a "required subscription."

(b) Report to Watermaster Water Rights Panel by Parties with Connections and Unable to Subscribe 20%. Any party having existing facilities for the taking of imported water and estimating that it will be unable, without undue hardship, in that Administrative Year to obtain, take and put to beneficial use through its distribution system or systems existing as of the beginning of that Administrative Year, sufficient imported water to further reduce its extractions from the Central Basin by twenty percent (20%) of its Allowed Pumping Allocation for purposes of providing water to the Exchange Pool must furnish not later than the 40th day following the commencement of such Administrative Year substantiating data and other proof which, together with any further data and other proof requested by the Water Rights Panel, establishes said inability or such party shall be deemed to have subscribed twenty percent (20%) of its Allowed Pumping Allocation for the purpose of providing water to the Exchange Pool. As to any such party so contending such inability, the Water Rights Panel shall make a determination whether the party has so established such inability, which determination shall be subject to review by the Court under the procedure set forth in Part II of this Judgment.

(c) Voluntary Subscriptions. Any party, whether or not having

facilities for the taking of imported water, who desires to subscribe to the Exchange Pool a quantity or further quantity of its Allowed Pumping Allocation, may so notify the Water Rights Panel in writing of the quantity of such offer on or prior to the 40th day following the commencement of the particular Administrative Year. Such subscriptions are referred to hereinafter as "voluntary subscriptions." Any Exchangor who desires that any part of its otherwise required subscription not needed to fill Category (a) requests shall be available for Category (b) requests may so notify the Water Rights Panel in writing on or prior to said 40th day. If all of that Exchangor's otherwise required subscription is not needed in order to fill Category (a) requests, the remainder of such required subscription not so used, or such part thereof as such Exchangor may designate, shall be deemed to be a voluntary subscription.

(5) Limitations on Purchases of Exchange Pool Water and Allocation of Requests to Purchase Exchange Pool Water Among Exchangors.

(a) Categories of Requests. Two categories of Exchange Pool requests are established as follows:

(i) Category (a) requests. The quantity requested by each Exchangee, whether or not that Exchangee has an Allowed Pumping Allocation, which quantity is not in excess of 150% of its Allowed Pumping Allocation, if any, or 100 acre feet, whichever is greater. Requests or portions thereof within the above criteria are sometimes hereinafter referred to as "Category (a) requests."

(ii) Category (b) requests. The quantity requested by each Exchangee having an Allowed Pumping Allocation to the extent the request is in excess of 150% of that Allowed

Pumping Allocation or 100 acre feet, whichever is greater, and the quantity requested by each Exchangee having no Allowed Pumping Allocation to the extent the request is in excess of 100 acre feet. Portions of requests within the above criteria are sometimes hereinafter referred to as "Category (b) requests."

(b) Filling of Category (a) Requests. All Exchange Pool subscriptions, required and voluntary, shall be available to fill Category (a) requests. Category (a) requests shall be filled first from voluntary subscriptions, and if voluntary subscriptions should be insufficient to fill all Category (a) requests required subscriptions shall be then utilized to fill Category (a) requests. All Category (a) requests shall be first filled before any Category (b) requests are filled.

(c) Filling of Category (b) Requests. To the extent that voluntary subscriptions have not been utilized in filling Category (a) requests, Category (b) requests shall be filled only out of any remaining voluntary subscriptions. Required subscriptions will then be utilized for the filling of any remaining Category (b) requests.

(d) Allocation of Requests to Subscriptions When Available Subscriptions Exceed Requests. In the event the quantity of subscriptions available for any category of requests exceeds those requests in that category, or exceeds the remainder of those requests in that category, such requests shall be filled out of such subscriptions proportionately in relation to the quantity of each subscription.

(e) Allocation of Subscriptions to Category (b) Requests in the Event of Shortage of Subscriptions. In the event available subscriptions are insufficient to meet Category (b) requests, available subscriptions shall be allocated to each request in the proportion that

the particular request bears to the total requests of the particular category.

(6) Additional Voluntary Subscriptions.

If subscriptions available to meet the requests of Exchangees are insufficient to meet all requests, additional voluntary subscriptions may be solicited and received from parties by the Water Rights Panel. Such additional subscriptions shall be allocated first to Category (a) requests to the extent unfilled, and next to Category (b) requests to the extent unfilled. All allocations are to be otherwise in the same manner as earlier provided in paragraph 5 (a) through 5 (e) inclusive.

(7) Effect if Category (a) Requests Exceed Available Subscriptions, Both Required and Voluntary.

In the event that the quantity of subscriptions available to fill Category (a) requests is less than the total quantity of such requests, the Exchangees may, nonetheless, extract the full amount of their Category (a) requests otherwise approved by the Water Rights Panel as if sufficient subscriptions were available. The amounts received by the Water Rights Panel on account of that portion of the approved requests in excess of the total quantities available from Exchangors shall be paid by the Water Rights Panel to WRD in trust for the purpose of purchasing imported water and spreading the same in Central Basin for replenishment thereof. Thereafter WRD may, at any time, withdraw said funds or any part thereof so credited in trust for the aforesaid purpose, or may by the 40th day of any Administrative Year utilize all or any portion of said funds for the purchase of water available from subscriptions by Exchangors in the event the total quantity of such subscriptions exceeds the total quantity of approved requests by parties to purchase Exchange Pool water. To the extent that there is such an excess of available subscriptions over requests and to the extent that the existing credit in favor of WRD is sufficient to purchase such excess quantity at

the price established for Exchange Pool purchases during that Administrative Year, the money shall be paid to the Exchangors in the same manner as if another party had made such purchase as an Exchangee. WRD shall not extract any such Exchange Pool water so purchased.

(8) Additional Pumping by Exchangees Pursuant to Exchange Pool Provisions.

An Exchangee may extract from Central Basin in addition to its Allowed Pumping Allocation for a particular Administrative Year that quantity of water which it has requested to purchase from the Exchange Pool during that Administrative Year and which has been allocated to it pursuant to the provisions of paragraphs 5, 6 and 7. The first pumping by an Exchangee in any Administrative Year shall be deemed to be pumping of the party's allocation of Exchange Pool water.

(9) Reduction in Pumping by Exchangors.

Each Exchangor shall in each Administrative Year reduce its extractions of water from Central Basin below its Allowed Pumping Allocation for the particular year in a quantity equal to the quantity of Exchange Pool requests allocated to it pursuant to the provisions of paragraphs 4, 5, 6 and 7 of this Subpart C.

(10) Price to be Paid for Exchange Pool Water.

The price to be paid by Exchangees and to be paid to Exchangors per acre foot for required and voluntary subscriptions of Exchangors utilized to fill requests on the Exchange Pool by Exchangees shall be the dollar amount computed as follows by the Water Rights Panel for each Administrative Year. The "normal" price as of the beginning of the Administrative Year charged by Central Basin Municipal Water District (CBMWD) for treated MWD (Metropolitan Water District of Southern California) water used for domestic and municipal purposes shall be determined, and if on that date there are any changes

scheduled during that Administrative Year in CBMWD's "normal" price for such category of water, the weighted daily "normal" CBMWD price shall be determined and used in lieu of the beginning such price; and there shall be deducted from such beginning or weighted price, as the case may be, the "incremental cost of pumping water in Central Basin" at the beginning of the Administrative Year and any then current rate or rates, of assessments levied on the pumping of groundwater in Central Basin by Plaintiff District and any other governmental agency. The "normal" price charged by CBMWD shall be the highest price of CBMWD for normal service excluding any surcharge or higher rate for emergency deliveries or otherwise failing to comply with CBMWD rates and regulations relating to earlier deliveries. The "incremental cost of pumping water in Central Basin" as of the beginning of the Administrative Year shall be deemed to be the Southern California Edison Company Schedule No. PA-1 rate per kilowatt-hour, including all adjustments and all uniform authorized additions to the basic rate, multiplied by 560 kilowatt-hours per acre-foot, rounded to the nearest dollar (which number of kilowatt-hours has been determined to represent the average energy consumption to pump an acre-foot of water in Central Basin). In applying said PA-1 rate the charge per kilowatt-hour under the schedule shall be employed and if there are any rate blocks then the last rate block shall be employed. Should a change occur in Edison schedule designations, the Water Rights Panel shall employ that applicable to motors used for pumping water by municipal utilities.

(11) Carry-over of Exchange Pool Purchases by Exchangees.

An Exchangee who does not extract from Central Basin in a particular Administrative Year a quantity of water equal to the total of (a) its Allowed Pumping Allocation for that particular Administrative Year, reduced by any authorized amount of carryover into the next succeeding Administrative Year pursuant to the provisions of Section III(A) of this Judgment, and (b) the quantity

that it purchased from the Exchange Pool for that particular Administrative Year, may carry over into the next succeeding Administrative Year the right to extract from Central Basin a quantity equal to the difference between said total and the quantity actually extracted in that Administrative Year, but not exceeding the quantity purchased from the Exchange Pool for that Administrative Year. Any such carryover shall be in addition to that provided in said Section III(A).

If the "Basinwide Average Exchange Pool Price" in the next succeeding Administrative Year exceeds the "Exchange Pool Price" in the previous Administrative Year any such Exchangee exercising such carryover rights hereinabove provided shall pay to the Watermaster, forthwith upon the determination of the "Exchange Pool Price" in said succeeding Administrative Year, and as a condition to such carryover rights, an additional amount determined by multiplying the number of acre feet of carryover by the difference in "Exchange Pool Price" as between the two Administrative Years. Such additional payment shall be miscellaneous income to the Watermaster which shall be applied by it against that share of the Watermaster's Administrative Body's budget to be paid by the parties to this Agreement for the second Administrative Year succeeding that in which the Exchange Pool water was so purchased. For purposes of this paragraph, the term Basinwide Average Exchange Pool Price means the average price per acre foot paid for Exchange Pool water produced within the Central Basin during the year for which such determination is to be made, taking into account all Exchange Pool transactions consummated during that year.

(12) Notification by Watermaster to Exchangors and Exchangees of Exchange Pool Requests and Allocations Thereof and Price of Exchange Pool Water.

Not later than the 65th day after the commencement of each Administrative Year, the Administrative Body of Watermaster shall determine

and notify all Exchangors and Exchangees of the total of the allocated requests for Exchange Pool water and shall provide a schedule divided into categories of requests showing the quantity allocated to each Exchangee and a schedule of the allocation of the total Exchange Pool requirements among the Exchangors. Such notification shall also advise Exchangors and Exchangees of the prices to be paid to Exchangors for subscriptions utilized and the Exchange Pool Price for that Administrative Year as determined by the Water Rights Panel. The determinations of the Watermaster in this regard shall be subject to review by the Court in accordance with the procedure set forth in Part II of this Judgment.

(13) Payment by Exchangees.

Each Exchangee shall, on or prior to last day of the third month of each Administrative Year, pay to the Watermaster one-quarter of said price per acre-foot multiplied by the number of acre feet of such party's approved request and shall, on or before the last day of each of the next succeeding three months, pay a like sum to the Watermaster. Such amounts must be paid by each Exchangee regardless of whether or not it in fact extracts or uses any of the water it has requested to purchase from the Exchange Pool.

(14) Payments to Exchangors.

As soon as possible after receipt of moneys from Exchangees, the Watermaster shall remit to the Exchangors their pro rata portions of the amount so received in accordance with the provisions of paragraph 10 above.

(15) Delinquent Payments.

Any amounts not paid on or prior to any due date above shall carry interest at the rate of 1% per month or any part of a month. Any amounts required to be so paid may be enforced by the equitable powers of the Court, including, but not limited to, the injunctive process of the Court. In addition thereto, the Watermaster, as Trustee for the Exchangors and acting through the Water Rights Panel, may enforce such payment by any appropriate legal action, and shall be

entitled to recover as additional damages reasonable attorneys' fees incurred in connection therewith. If any Exchangee shall fail to make any payments required of it on or before 30 days after the last payment is due, including any accrued interest, said party shall thenceforward not be entitled to purchase water from the Exchange Pool in any succeeding Administrative Year except upon order of the Court, upon such conditions as the Court may impose.

IV. PROVISIONS FOR THE STORAGE OF WATER AND THE EXTRACTION OF STORED WATER.

A. Adjudication of Available Dewatered Space, Storage Capacity and Storage Apportionment.

There exists within the Basin a substantial amount of available space which has not been optimally utilized for basin management and for storage of native and imported waters. The Court finds and determines that (i) there is 330,000 acre feet of Available Dewatered Space in the Basin; (ii) use of this Available Dewatered Space will increase reasonable and beneficial use of the Basin by permitting the more efficient procurement and management of Replenishment Water, conjunctive use, and for direct and in-lieu recharge, thereby increasing the prudent storage and recovery of Stored Water for later use by parties to this Judgment, conservation of water and reliability of the water supply available to all Parties; and (iii) use of the Available Dewatered Space pursuant to the terms and conditions of this Judgment will not result in Material Physical Harm.

B. Avoidance of Material Physical Harm.

It is essential that the use of the Available Dewatered Space be undertaken for the greatest public benefit pursuant to uniform, certain, and transparent regulation that encourages the conservation of water and reliability of the water supply, avoids Material Physical Harm, and promotes the reasonable and beneficial use of water. Accordingly, in the event Watermaster becomes aware of the development of a Material Physical Harm, or imminent threat of the development of a Material Physical Harm, relating to the

use of the Available Dewatered Space, Watermaster shall, within thirty (30) days thereafter, notice a hearing before the Court and concurrently file a report with the Court, served on all parties, which shall explain the relevant facts then known to Watermaster relating to the Material Physical Harm, or imminent threat thereof, including without limitation, the location of the occurrence, the source or cause, existing and potential physical impacts or consequences of the identified or threatened material Physical Harm, and any recommendations to remediate the identified or threatened Material Physical Harm.

C. Apportionment of Available Dewatered Space.

To fairly balance the needs of the divergent interests of parties having water rights in the Basin, on the one hand, and the replenishment functions of WRD on the other hand, and in consideration of the shared desire and public purpose of removing impediments to the voluntary conservation, storage, exchange and transfer of water, all of the Available Dewatered Space is hereby adjudicated and apportioned into complimentary classifications of Stored Water and a Basin Operating Reserve as set forth in this Part IV. The apportionment contemplates flexible administration of storage capacity where use is apportioned among competing needs, while allowing all Available Dewatered Space to be used from time to time on a "space available" basis, subject to the priorities specified in this Judgment, and as further defined in Section IV(I) of this Judgment. The Court further finds and determines that, of the Available Dewatered Space, there is 220,000 acre-feet of storage capacity in the Central Basin which is presently available ("Adjudicated Storage Capacity"). The use of Adjudicated Storage Capacity as provided in this Judgment will not adversely affect the efficient operation of the Basin or the recharge of water necessary for the production of the parties' respective Allowed Pumping Allocations. The apportionment of Adjudicated Storage Capacity as provided herein will allow for flexible administration of groundwater storage within the Basin. The Adjudicated Storage Capacity is hereby assigned to Individual Storage Allocations and Community Storage as provided herein, provided however that if all

space in a particular classification is fully occupied then, on a "space available" basis, to available space within the other classifications of Adjudicated Storage Capacity and, only then, to available space within Basin Operating Reserve.

The Court further finds and determines that, out of the Available Dewatered Space, there is 110,000 acre feet that should be set aside for use by WRD as a Basin Operating Reserve, provided in Section IV(L), and subject to temporary occupancy by Stored Water as permitted hereunder.

No storage of water shall occur in the Basin except in conformity with this Judgment.

D. Individual Storage Allocation.

Each Party having an adjudicated groundwater extraction right hereunder shall have a priority right to store water in an Individual Storage Account, through conversion of Carryover to Stored Water as provided herein, or by any means authorized by this Judgment, up to a maximum of 50% of such party's Allowed Pumping Allocation. The cumulative quantity of Adjudicated Storage Capacity subject to individual storage allocation is 108,750 acre-feet. In recognition of prior importation of water which was introduced into the Basin as Stored Water, and which has not yet been extracted, the Court finds and determines that, as of the date of this Order, the following Parties have occupied a portion of their respective Individual Storage Allocations and have all associated rights therein, as follows:

City of Long Beach:	13,076.8 acre-feet
City of Lakewood:	500 acre-feet
City of Downey:	500 acre-feet
City of Cerritos	500 acre-feet

E. Community Storage; Regional Disadvantaged Communities Incentive Program.

In addition to Individual Storage Allocation, a Party that has fully occupied its Individual Storage allocation may, on a first in time, first in right basis (subject to the

limits expressed below) place water into storage in the "Community Storage Pool." The cumulative quantity of Adjudicated Storage Capacity allocated to Community Storage shall be 111,250 acre-feet. So long as there is available capacity in the Community Storage Pool, any Party may store water in the Community Storage Pool through conversion of Carryover to Stored Water as provided herein, or by any other means authorized by this Judgment, provided such Party has first fully occupied that party's available Individual Storage Allocation.

(1) Parties to this Judgment which, as of January 1, 2013, held Allowed Pumping Allocation of not greater than 5,000 acre-feet shall have a first priority right to occupy, in the aggregate, up to 10,000 acre-feet of storage space within the Central Basin Community Storage Pool, on the basis of first in time, first in right.

(2) Water stored pursuant to the Regional Disadvantaged Communities Incentive Program shall have a second priority right to occupy up to 23,000 acre-feet within the Community Storage Pool, on such terms as shall be determined by the Court.

(3) Any further storage in excess of the maximum quantity of Community Storage will be on a "space-available" interim basis. From time to time, and on a "space-available" basis, the total quantity of water available for storage is permitted to exceed Adjudicated Storage Capacity for the Community Storage Pool on an interim basis. This interim storage may occur if storage capacity exists as a result of unused Adjudicated Storage Capacity within other classifications, or available space exists in the Basin Operating Reserve. Such interim storage, however, is subject to priority rights to such Dewatered Space as provided in this Judgment. A party that seeks to convert the water temporarily held in interim storage to a more firm right, may contract for the use of another party's Individual Storage Allocation, or may add such water to the Community Storage Pool once space therein becomes available.

(4) After a party occupies available storage capacity within the Community Storage Pool and then withdraws water from the Community Storage Pool, the storing party will be allowed a period of twenty-four (24) months to refill the evacuated storage before the capacity will be determined excess and available for use by other parties. Once the Basin's Community Storage Pool has been filled for the first time, a party may exercise its twenty-four (24) month refill priority only once, and then only provided there is then capacity available to permit that party to refill the vacated space. Except to the extent Community Storage space may be subject to such priority right to re-fill, all space therein shall be occupied on a first in time, first in right basis.

(5) A party that has occupied storage in the Community Storage Pool for ten (10) consecutive years shall be deemed to extract its Stored Water first in subsequent years (notwithstanding the order of water production set forth in Section I(B)(3)) until its entire Community Storage account has been extracted, but thereafter may again make use of Community Storage on the same terms available to other parties on a first in time, first in right, space-available basis.

(6) Any quantity of water held in the Community Storage Pool for a term greater than ten (10) consecutive years shall be assessed an annual water loss equal to 5% of the lowest quantity of water held within the party's Community Storage Pool account at any time during the immediately preceding ten-year period. The lowest quantity means the smallest amount of water held by the Party in the Community Storage Pool during any of the preceding ten (10) years, with a new loss calculation being undertaken every year. Water subject to the loss assessment will be deemed dedicated to the Basin Operating Reserve in furtherance of the physical solution without compensation. Water lost to the Basin shall constitute water replenished into the Central Basin for the benefit of all parties

F. Limit on Storage.

Irrespective of the category of storage utilized, each party to this Judgment may not cumulatively have in storage at any time Stored Water totaling more than two hundred percent (200%) of that party's Allowed Pumping Allocation. Subject to the foregoing, the right to produce Stored Water may be freely transferred to another party to this Judgment, or as otherwise permitted herein.

G. Extractions of Stored Water; Exemption from Replenishment Assessment.

The Court finds and declares that the extraction of Stored Water as permitted hereunder does not constitute "production of groundwater" within the meaning of Water Code Section 60317 and that no Replenishment Assessment shall be levied on the extraction of Stored Water. WRD has stipulated to the same. This determination reflects the practical application of certain provisions of this Judgment concerning storage of water, including, without limitation, understanding the following: (1) payment of the Replenishment Assessment is required upon the conversion of Carryover Water into storage, and; (2) developed water introduced into the Basin for storage by or on behalf of a Party through spreading or injection need not be replenished by WRD and should not be subject to the Replenishment Assessment.

H. Storage Procedure.

The Administrative Body shall (i) prescribe forms and procedures for the orderly reporting of Stored Water, (ii) maintain records of all water stored in the Basin, and (iii) undertake monitoring and modeling of Stored Water as may be reasonably required. As to any Storage Projects that will require review and approval by the Storage Panel, the Administrative Body shall provide appropriate applications, and shall work with project applicants to complete the application documents for presentation to the Storage Panel. The Administrative Body shall be responsible for conducting any groundwater modeling necessary to evaluate a proposed Storage Project. The proponent of a proposed project will bear all costs associated with the review of the application for approval of the project and all costs associated with its implementation. Nothing in this Judgment shall alter the applicant(s) duty to comply with CEQA or to meet other legal requirements as to any

proposed Storage Project. Within thirty (30) days after final submission of the storage application documents, the Administrative Body shall provide notice of the storage application (either by electronic mail or U.S. postal mail), together with a copy of the application documents, to all parties possessing an Allowed Pumping Allocation, and to any other person requesting notice thereof. Following notice, any necessary hearings before the Storage Panel shall be conducted as provided in Section IV(O) of this Judgment.

I. Loss of Stored Water/Relative Priority.

To balance the need to protect priority uses of storage and to encourage the full utilization of Adjudicated Storage Capacity and Basin Operating Reserve where it can be accommodated without interference with priority uses, and except as otherwise provided in this Judgment, no water held in any authorized storage account will be deemed lost from that storage account unless the cumulative quantity of water held as Stored Water plus the quantity of water held within the Basin Operating Reserve exceeds 330,000 acre-feet. Where all Adjudicated Storage Capacity and Basin Operating Reserve has been occupied, the first Stored Water to be deemed lost shall be the last water stored as Community Storage. Upon receipt of a bona fide request by another use entitled to priority hereunder, Watermaster shall issue a notice requiring the other parties to evacuate their Stored Water. Any Stored Water that is not evacuated shall be deemed dedicated to the Basin Operating Reserve in furtherance of the physical solution without compensation and accounted for accordingly.

J. Limits on Extraction.

Anything in this Judgment to the contrary notwithstanding, no party shall extract greater than 140% of the sum of (i) the party's Allowed Pumping Allocation and (ii) the party's leased water, except upon prior approval by the Water Rights Panel. For this purpose, a party's total extraction right for a particular year shall include that party's Allowed Pumping Allocation and any contractual right through lease or other means to utilize the adjudicated rights of another party. Where such proposed extraction would

occur within the Central Basin Pressure Area as defined by Watermaster consistent with historical records, the Water Rights Panel shall submit such request for review by the Board of WRD. The Water Rights Panel shall not approve any request for over-extraction within the Pressure Area without a written finding by the Board of WRD that such over-extraction will not cause Material Physical Harm. The role of the Board of WRD in this process shall not be read to expand or restrict WRD's statutory authority. Consideration shall be on an expedited basis.

K. Increased Extractions in the Central Basin for Certain Water Purveyors.

(1) This Court also maintains continuing jurisdiction over the West Coast Basin, which bounds the Central Basin to the west.

(2) Certain Water Purveyors are parties to both this Amended Judgment and the judgment governing the West Coast Basin and serve communities overlying both the Central Basin and the West Coast Basin.

(3) Certain Water Purveyors may exceed their Allowed Pumping Allocation in any Administrative Year, subject to all of the following conditions:

(a) The Water Purveyor is one of the following eligible Parties:

(i) City of Los Angeles

(ii) Golden State Water Company

(iii) California Water Service Company.

(b) Increased extractions pursuant to this Section shall not exceed 5,000 acre-feet per Water Purveyor for the particular Administrative Year.

(c) Increased extractions pursuant to this Section shall not exceed the Water Purveyor's unused "Adjudicated Rights" in the West Coast Basin.

(d) Increased extractions pursuant to this Section shall not result in Material Physical Harm.

(4) Notwithstanding the foregoing, nothing herein permits extraction

of water within the Central Basin in excess of 140% of Allowed Pumping Allocation for the particular Administrative Year, except as otherwise permitted under this Judgment.

(5) Replenishment of any water extracted from the Central Basin pursuant to this Section shall occur exclusively in the Central Basin.

(6) The benefits of this Section are made available only to the certain Water Purveyors that serve communities overlying the Central Basin and communities overlying the West Basin, in recognition of the management of water resources by those Water Purveyors to serve such overlying communities. It is not made, nor is it related to, a determination of an underflow between the basins, a cost or benefit allocation, or any other factor relating to the allocation of the Replenishment Assessment.

L. Special Provisions for Temporary Storage within Community Storage Pool.

The Central Basin Municipal Water District ("CBMWD") shall take such action as may be necessary to reduce its Allowed Pumping Allocation to five (5) acre-feet or fewer by December 31, 2018, and has agreed, by stipulation, not to acquire any additional Central Basin water rights. Upon application by CBMWD, the Storage Panel may, after making each of the findings required in this subsection, approve storage of water by CBMWD within the Community Storage Pool subject to the stated conditions. The Storage Panel may only authorize such storage after finding each of the following to be true as of the date of such approval:

(1) CBMWD (a) then owns five (5) acre-feet or fewer of Allowed Pumping Allocation, and (b) has not produced water utilizing any extraction rights it holds within the Basin but has only engaged in the sale or leasing of those rights to others.

(2) There is available space for Storage within the Community Storage

Pool.

(3) CBMWD has identified a source of imported water that may be brought into the Basin and stored underground.

(4) The water identified for storage (a) is unlikely to be acquired by other parties through surface delivery for use within the Basin, and (b) was offered to WRD to purchase for replenishment purposes at the same price that CBMWD otherwise sells imported water to WRD and WRD declined to purchase said water, within a reasonable period of time.

(5) There will be no Material Physical Harm associated with the introduction of the water into storage, or its extraction, in the manner approved by the Storage Panel.

The condition expressed in Section IV(L)(1)(a) above shall not be operative until January 1, 2019, or upon reduction of CBMWD's Allowed Pumping Allocation to five (5) acre-feet or fewer, whichever first occurs. CBMWD may not extract the Stored Water, and may instead only transfer that Stored Water to a party having extraction rights, or to WRD for replenishment purposes only. Such Stored Water not so transferred within three (3) years following its storage may be purchased by WRD, at its option, for replenishment purposes only, at a price not exceeding the actual cost incurred by CBMWD in importing and storing the water in the first instance, plus a reasonable administrative charge for overhead not exceeding five percent (5%) of the price paid by CBMWD for the water with no other fees or markups imposed by CBMWD. Except as otherwise permitted in this Section, any such Stored Water held by CBMWD for a term greater than three (3) years shall be assessed an annual water loss equal to 10% of the amount of such Stored Water at the end of each year. Water subject to the loss

assessment will be deemed dedicated to the Basin Operating Reserve in furtherance of the physical solution without further compensation. The Storage Panel shall grant CBMWD one or more extensions of such term, not exceeding total extensions of three (3) additional years, following public hearing, if the Storage Panel determines that the Stored Water has been actively marketed by CBMWD for transfer to Parties on reasonable terms in the previous year. The Storage Panel may impose such additional reasonable conditions as it determines to be appropriate. Any review by the Storage Panel hereunder shall only occur at a public hearing held following at least 15 days' (but not more than 30 days') mailed notice to all Parties to this Judgment, at which hearing an opportunity for public comment shall be afforded in advance of any such decision. However, the Storage Panel may consider an application on shorter notice under exigent circumstances, including the potential loss of the water proposed to be stored if action is not taken sooner. CBMWD shall have the right to appeal any action or inaction by the Storage Panel to this court. The storage and extraction of Stored Water hereunder shall otherwise be subject to all other provisions of this Judgment. The court finds and declares that this subsection constitutes a "court order issued by a court having jurisdiction over the adjudication of groundwater extraction rights within the groundwater basin where storage is sought" within the meaning of Water Code §71610(b)(2)(B). Nothing in this provision impedes CBMWD's ability to store water pursuant to a contract with an adjudicated groundwater extraction rights holder as permitted by Water Code § 71610(b)(2)(A) and otherwise in accordance with this Judgment.

M. Basin Operating Reserve.

It is in the public interest and in furtherance of the physical solution for WRD to prudently exercise its statutory discretion to purchase, spread, and inject Replenishment Water, to provide for in-lieu replenishment, and otherwise to fulfill its replenishment function within the Basin as provided in Water Code Section 60000 et. seq. Hydrologic,

regulatory and economic conditions now prevailing within the State require that WRD be authorized to exercise reasonable discretion and have flexibility in the accomplishment of its replenishment function. Accordingly, WRD may pre-purchase or defer the purchase of Replenishment Water, and may otherwise purchase and manage available sources of Replenishment Water under the most favorable climatic and economic conditions as it may determine reasonable and prudent under the circumstances. It is the intent of the parties to preserve space for such replenishment activities, including capture of natural inflows during wet years, recapture of water when possible, and artificial replenishment when water is available at discounted rate, for the benefit of the Basin and the parties to the Judgment. The Basin Operating Reserve is intended to allow WRD to meet its replenishment needs to make APA available for extraction by all water rights holders. Accordingly, WRD shall have a priority right to occupy up to 110,000 acre-feet of the Available Dewatered Space as the "Basin Operating Reserve" for the acquisition and replenishment of water, or to ensure space remains available in the Basin to capture natural inflows during wet years for the benefit of the parties to the Judgment, to offset over-production. The priority right is not intended to allow WRD to sell or lease stored water, storage, or water rights. To the extent WRD does not require the use of all of such Basin Operating Reserve, that portion of the Basin Operating Reserve that is not then being used shall be available to other Parties to store water on a temporary and space-available basis. No Party may use any portion of the Basin Operating Reserve for space-available storage unless that Party has already maximized its allowed Storage pursuant to its Individual Storage Allocation and all available Community Storage is already in use. WRD's failure to use any portion of its Basin Operating Reserve shall not cause forfeiture or create a limitation of its right to make use of the designated space in the future. WRD's first priority right to this category of space shall be absolute. To the extent that there is a conflict between WRD and a third party regarding the availability of and desire to use any portion of the space available for replenishment up to the maximum limits set forth in this section, the interests of WRD will prevail. If a party other than

WRD is using the Basin Operating Reserve space on a "space available" basis and a conflict develops between WRD and the storing party, the storing party will, upon notice from WRD, evacuate the Stored Water within ninety (90) days thereafter. In such event, temporary occupancy within the Basin Operating Reserve shall be first in time, first in right, and the last Party to store water shall be required to evacuate first until adequate space shall be made available within the Basin Operating Reserve to meet WRD's needs. The storing party or parties assume all risks of waste, spill and loss regardless of the hardship. Stored Water that is not evacuated following WRD's notice of intent to occupy the Basin Operating Reserve will be deemed dedicated to the Basin Operating Reserve in furtherance of the physical solution without compensation and accounted for accordingly. Nothing herein shall permit WRD to limit or encumber, by contract or otherwise, its right to use the Basin Operating Reserve for Replenishment purposes for any reason, or to make space therein available to any person by any means. Notwithstanding the foregoing, to the extent excess space is available, water evacuated from the Basin Operating Reserve as provided in this Section shall be deemed added to available space within the Individual Storage Allocations and Community Storage Pool, subject to the priority rights otherwise provided in this Judgment.

N. Water Augmentation.

The parties, in coordination with WRD, may undertake projects that add to the long-term reliable yield of the Basin. Innovations and improvements in 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 Judgment, in coordination with WRD, implement a project that provides additional long-term reliable water supply to the Central Basin, the annual extraction rights in the Central Basin will be increased commensurately in an amount to be determined by the Storage Panel to reflect the actual yield enhancement associated with the project. Augmented supplies of water resulting from such a project may be extracted or stored as permitted in this Judgment in the same manner as other water. Participation in any Water Rights Augmentation Project shall be

voluntary. A party may elect to treat a proposed project as a Water Augmentation Project (for the purpose of seeking an increase in that party's Allowed Pumping Allocation) or may elect to treat such a project as a Storage Project under the other provisions of this Judgment. The terms of participation in any Water Augmentation Project will be at the full discretion of the participating parties. All Water Augmentation Projects will be approved by the Storage Panel.

(1) Participating Parties.

Parties who propose a Water Augmentation Project ("Project Leads") may do so in their absolute discretion, upon such terms as they may determine. All other parties to this Judgment will be offered an opportunity to participate in the Water Augmentation Project on condition that they share proportionally in common costs and benefits, and assume the obligation to bear exclusively the cost of any improvements that are required to accommodate their individual or particular needs. Notice shall be provided which generally describes the project and the opportunity to participate with sufficient time for deliberation and action by any of these parties who could potentially participate. Disputes over the adequacy of notice shall be referred to the Storage Panel, and then to the Court under its continuing jurisdiction. Parties who elect to participate ("Project Participants") may do so provided they agree to offer customary written and legally binding assurances that they will bear their proportionate costs attributable to the Water Rights Augmentation Project, or provide other valuable consideration deemed sufficient by the Project Leads and the Project Participants.

(2) Determination of Additional Extraction Rights.

The amount of additional groundwater extraction as a result of a Water Augmentation project will be determined by the Storage Panel, subject to review by the Court. The determination will be based upon substantial evidence which supports the finding that the Water Augmentation project will increase the long-term sustainable yield of the respective Basin by an amount at least equal to the

proposed increase in extraction rights.

(3) Increase in Extraction Rights.

A party that elects to participate and pays that party's full pro-rata share of costs associated with any Water Augmentation Project and/or reaches an agreement with other participants based upon other valuable consideration acceptable to the Project Leads and Project Participants, will receive a commensurate increase in extraction rights. Non-participating parties will not receive an increase or a decrease in extraction rights. Any party that elects not to participate will not be required to pay any of the costs attributable to the particular Water Augmentation Project, whether directly or indirectly as a component of the WRD Replenishment Assessment.

(4) Nominal Fluctuations.

Because water made available for Water Rights Augmentation will be produced annually, fluctuations in groundwater levels will be temporary, nominal and managed within the Basin Operating Reserve.

(5) Availability of New Water.

The amount of additional groundwater extraction established as a result of a Water Augmentation Project shall be equal to the quantity of new water in the Basin that is attributable to that Water Augmentation Project. No extraction shall occur and no extraction right shall be established until new water has been actually introduced into the Basin as a result of the Project. Any approval for a Water Augmentation Project shall include provisions (a) requiring regular monitoring to determine the actual amount of such new water made available, (b) requiring make-up water or equivalent payment therefor to the extent that actual water supply augmentation does not meet projections, and (c) adjusting extraction rights attributable to the Water Augmentation Project to match the actual water created. The right to extract augmented water from the Basin resulting from a party's participation in a Water Augmentation Project shall be accounted for

separately and shall not be added to a party's Allowed Pumping Allocation. No Replenishment Assessment shall be levied against the extraction of augmented water.

(6) Limitation.

Notwithstanding the foregoing, WRD will not obtain any water rights or extraction rights under this Judgment by virtue of its participation in a Water Augmentation Project. If WRD participates in a Water Rights Augmentation Project through funding or other investments, its allocation of new water from the project shall be used to offset its replenishment responsibilities.

O. Limits on Watermaster Review.

It shall not be necessary for Watermaster, or any constituent body thereof, to review or approve any of the following before the affected Party may proceed: (i) exercise of adjudicated water rights consistent with this Judgment, except for extraction above 140% of a Party's extraction right as set out in Section IV(J) of this Judgment; (ii) replenishment of the Basin with Replenishment Water by WRD consistent with Water Code Section 60000 et seq., including replenishment of water produced by water rights holders through the exercise of adjudicated water rights; (iii) WRD's operations within the Basin Operating Reserve; (iv) Carryover Conversion or other means of the filling of the Individual Storage Accounts and the Community Storage Pool, as provided in this Judgment, as long as existing water production, spreading, or injection facilities are used; and (v) individual transfers of the right to produce Stored Water as permitted in Section IV(F). All other Storage Projects and all Water Augmentation Projects shall be subject to review and approval as provided herein, including (i) material variances to substantive criteria governing projects exempt from the review and approval process, (ii) modifications to previously approved Storage Projects and agreements, (iii) 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 (iv) Storage, by means other than Carryover Conversion, when new production,

spreading, or injection facilities are proposed to be utilized.

P. Hearing Process For Watermaster Review.

The following procedures shall be followed by Watermaster where Watermaster review of storage or extraction of Stored Water is required or permitted under this Judgment:

(1) No later than thirty (30) days after notice has been issued for the storage application, the matter shall be set for hearings before the Storage Panel. A staff report shall be submitted by WRD staff in conjunction with the completed storage application documents and the Water Rights Panel may prepare an independent staff report, if it elects to do so.

(2) The Board of WRD and the Water Rights Panel (sitting jointly as the Storage Panel) shall conduct a joint hearing concerning the storage application.

(3) All Watermaster meetings shall be conducted in the manner prescribed by the applicable Rules and Regulations. The Rules shall provide that all meetings of Watermaster shall be open to water rights holders and that reasonable notice shall be given of all meetings.

(4) The Board of WRD and the Water Rights Panel shall each adopt written findings explaining its decision on the proposed Storage Project, although if both entities reach the same decision on the Storage Project, they shall work together to adopt a uniform set of findings.

(5) Unless both the Board of WRD and the Water Rights Panel approve the Storage Project, the Storage Project application shall be deemed denied (a "Project Denial"). If both the Board of WRD and the Water Rights Panel approve the Storage Project, the Storage Project shall be deemed approved (a "Project Approval").

Q. Trial Court Review

(1) The applicant may seek the Storage Panel's reconsideration of a

Project Denial. However, there shall be no process for mandatory reconsideration or mediation of a Project Approval or a Project Denial either before the Administrative Body, or before the Water Rights Panel.

(2) Any Party may file an appeal from a Project Approval or Project Denial with this Court, as further described in Section II(F).

(3) In order to (a) promote the full presentation of all relevant evidence before the Storage Panel in connection with its consideration of any proposed Storage Project, (b) achieve an expeditious resolution of any appeal to the Court, and (c) accord the appropriate amount of deference to the expertise of the Storage Panel, the appeal before the Court shall be based solely on the administrative record, subject only to the limited exception in California Code of Civil Procedure section 1094.5(e).

(4) If both the WRD Board and the Water Rights Panel each vote to deny or approve a proposed Storage Project, it shall be an action by the Storage Panel and that decision shall be accorded by the Court deference according to the substantial evidence test. If one of the reviewing bodies votes to approve the proposed Storage Project and the other reviewing body votes to deny the proposed storage project, then the Court's review shall be *de novo*, although still restricted to the administrative record. In the case of any *de novo* Trial Court review, the findings made by the respective Watermaster bodies shall not be accorded any weight independent of the evidence supporting them.

R. Space Available Storage, Relative Priority, and Dedication of "Spilled" Water.

To balance the need to protect priority uses of storage and to encourage the full utilization of Available Dewatered Space within the Adjudicated Storage Capacity and the Basin Operating Reserve, any Party may make interim, temporary use of then currently unused Available Dewatered Space within any category of Adjudicated Storage Capacity, and then if all Adjudicated Storage Capacity is being fully used for Stored

Water within the Basin Operating Reserve ("Space-Available Storage"), subject to the following criteria:

(1) Any Party may engage in Space-Available Storage without prior approval from Watermaster provided that the storing Party or Parties shall assume all risks of waste, spill, and loss regardless of the hardship. Whenever the Storage Panel determines that a Party is making use of excess Available Dewatered Space for Space-Available Storage, the Storage Panel shall issue written notice to the Party informing them of the risk of spill and loss.

(2) Whenever the Available Dewatered Space is needed to accommodate 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 the respective category of Adjudicated Storage Capacity or Basin Operating Reserve, as applicable, within the time-periods set forth within this Amended Judgment. To the extent the Stored Water is not timely evacuated such Stored Water will be placed into 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 within the Basin Operating Reserve. If no excess Available Dewatered Space is available within the Basin Operating Reserve, then the Stored Water shall be deemed spilled and will be deemed dedicated to the Basin Operating Reserve in furtherance of the physical solution without compensation and accounted for accordingly. A Party that seeks to convert the Stored Water temporarily held in interim storage as Space-Available Storage to a more firm right, may in its discretion, contract for the use of another Party's Individual Storage Allocation, or may add such water to the Community Storage Pool once space therein becomes available.

(3) No Stored Water will be deemed abandoned unless the cumulative

quantity of water held as Stored Water plus the quantity of water held in the Basin Operating Reserve exceeds 330,000 (three hundred and thirty thousand) acre-feet in the Central Basin.

V. CONTINUING JURISDICTION OF THE COURT.

The Court hereby reserves continuing jurisdiction and upon application of any interested party, or upon its own motion, may review and redetermine the following matters and any matters incident thereto:

A. Its determination of the permissible level of extractions from Central Basin in relation to achieving a balanced basin and an economic utilization of Central Basin for groundwater storage, taking into account any then anticipated artificial replenishment of Central Basin by governmental agencies for the purpose of alleviating what would otherwise be annual overdrafts upon Central Basin and all other relevant factors.

B. Whether in accordance with applicable law any party has lost all or any portion of his rights to extract groundwater from Central Basin and, if so, to ratably adjust the Allowed Pumping Allocations of the other parties and ratably thereto any remaining Allowed Pumping Allocation of such party.

C. To remove any Watermaster or constituent body appointed from time to time and appoint a new Watermaster; and to review and revise the duties, powers and responsibilities of the Watermaster or its constituent bodies and to make such other and further provisions and orders of the Court that may be necessary or desirable for the adequate administration and enforcement of the Judgment.

D. To revise the price to be paid by Exchangees and to Exchangors for Exchange Pool purchases and subscriptions.

E. In case of emergency or necessity, to permit extractions from Central Basin for such periods as the Court may determine: (i) ratably in excess of the Allowed Pumping Allocations of the parties; or (ii) on a non-ratable basis by certain parties if

either compensation or other equitable adjustment for the benefit of the other parties is provided. Such overextractions may be permitted not only for emergency and necessity arising within Central Basin area, but to assist the remainder of the areas within The Metropolitan Water District of Southern California in the event of temporary shortage or threatened temporary shortage of its imported water supply, or temporary inability to deliver the same throughout its area, but only if the court is reasonably satisfied that no party will be irreparably damaged thereby. Increased energy cost for pumping shall not be deemed irreparable damage. Provided, however, that the provisions of this subparagraph will apply only if the temporary shortage, threatened temporary shortage, or temporary inability to deliver was either not reasonably avoidable by the Metropolitan Water District, or if reasonably avoidable, good reason existed for not taking the steps necessary to avoid it.

F. To review actions of the Watermaster.

G. To assist the remainder of the areas within The Metropolitan Water District of Southern California within the parameter set forth in subparagraph (e) above.

H. To provide for such other matters as are not contemplated by the Judgment and which might occur in the future, and which if not provided for would defeat any or all of the purposes of this Judgment to assure a balanced Central Basin subject to the requirements of Central Basin Area for water required for its needs, growth and development.

The exercise of such continuing jurisdiction shall be after 30 days' notice to the parties, with the exception of the exercise of such continuing jurisdiction in relation to subparagraphs E and G above, which may be *ex parte,* in which event the matter shall be forthwith reviewed either upon the Court's own motion or the motion of any party upon which 30 days' notice shall be so given. Within ten (10) days of obtaining any *ex parte* order, the party so obtaining the same shall mail notice thereof to the other parties. If any other party desires Court review thereof, the party obtaining the *ex parte* order shall bear the reasonable expenses of mailing notice of the proceedings, or may in lieu thereof undertake the mailing. Any contrary or

modified decision upon such review shall not prejudice any party who relied on said *ex parte* order.

VI. GENERAL PROVISIONS.

A. Judgment Constitutes Inter Se Adjudication.

This Judgment constitutes an inter se adjudication of the respective rights of all parties, except as may be otherwise specifically indicated in the listing of the water rights of the parties of this Judgment, or in Appendix "2" hereof. All parties to this Judgment retain all rights not specifically determined herein, including any right, by common law or otherwise, to seek compensation for damages arising out of any act or omission of any person. This Judgment constitutes a "court order" within the meaning of Water Code Section 71610(B)(2)(b).

B. Assignment, Transfer, Etc., of Rights.

Subject to the other provision of this Judgment, and any rules and regulations of the Watermaster requiring reports relative thereto, nothing herein contained shall be deemed to prevent any party hereto from assigning, transferring, licensing or leasing all or any portion of such water rights as it may have with the same force and effect as would otherwise be permissible under applicable rules of law as exist from time to time.

C. Service Upon and Delivery to Parties of Various Papers.

Service of the Judgment on those parties who have executed that certain Stipulation and Agreement for Judgment or who have filed a notice of election to be bound by the Exchange Pool provisions shall be made by first class mail, postage prepaid, addressed to the designee and at the address designated for that purpose in the executed and filed Counterpart of the Stipulation and Agreement for Judgment or in the executed and filed "Notice of Election to be Bound by Exchange Pool Provisions," as the case may be, or in any substitute designation filed with the Court.

Each party who has not heretofore made such a designation shall, within 30 days after the Judgment shall have been served upon that party, file with the Court, with proof

of service of a copy upon the Watermaster, a written designation of the person to whom and the address at which all future notices, determinations, requests, demands, objections, reports and other papers and processes to be served upon that party or delivered to that party are to be so served or delivered.

A later substitute designation filed and served in the same manner by any party shall be effective from the date of filing as to the then future notices, determinations, requests, demands, objections, reports and other papers and processes to be served upon or delivered to that party.

Delivery to or service upon any party by the Watermaster, by any other party, or by the Court, or any item required to be served upon or delivered to a party under or pursuant to the Judgment may be by deposit in the mail, first class, postage prepaid, addressed to the designee and at the address in the latest designation filed by that party.

D. Judgment Does Not Affect Rights, Powers, Etc., of Plaintiff District.

Nothing herein constitutes a determination or adjudication which shall foreclose Plaintiff District from exercising such rights, powers, privileges and prerogatives as it may now have or may hereafter have by reason of provisions of law.

E. Continuation of Order under Interim Agreement.

The order of Court made pursuant to the "Stipulation and Interim Agreement and Petition for Order" shall remain in effect through the Administrative Year in which this Judgment shall become final (subject to the reserved jurisdiction of the Court).

F. Effect of Extractions by Exchangees; Reductions in Extractions.

With regard to Exchange Pool purchases, the first extractions by each Exchangee shall be deemed the extractions of the quantities of water which that party is entitled to extract pursuant to his allocation from the Exchange Pool for that Administrative Year. Each Exchangee shall be deemed to have pumped his Exchange Pool request so allocated for and on behalf of each Exchangor in proportion to each Exchangor's subscription to the Exchange Pool which is utilized to meet Exchange Pool requests. No Exchangor shall ever be deemed to have relinquished or lost any of its rights determined in this

Judgment by reason of allocated subscriptions to the Exchange Pool. Each Exchangee shall be responsible as between Exchangors and that Exchangee, for any tax or assessment upon the production of groundwater levied for replenishment purposes by WRD or by any other governmental agency with respect to water extracted by such Exchangee by reason of Exchange Pool allocations and purchases. No Exchangor or Exchangee shall acquire any additional rights, with respect to any party to this action, to extract waters from Central Basin pursuant to Water Code Section 1005.1 by reason of the obligations pursuant to and the operation of the Exchange Pool.

G. Judgment Binding on Successors, Etc.

This Judgment and all provisions thereof are applicable to and binding upon not only the parties to this action, but as well to their respective heirs, executors, administrators, successors, assigns, lessees, licensees and to the agents, employees and attorneys in fact of any such persons.

H. Costs.

No party shall recover its costs herein as against any other party.

I. Intervention of Successors in Interest and New Parties.

Any person who is not a party (including but not limited to successors or parties who are bound by this Judgment) and who proposes to produce water from the Basin, store water in the Basin, or exercise water rights of a predecessor may seek to become a party to this Judgment through a Stipulation in Intervention entered into with the Plaintiff. Plaintiff may execute said Stipulation on behalf of the other parties herein, but such Stipulation shall not preclude a party from opposing such intervention at the time of the court hearing thereon. Said Stipulation for Intervention must thereupon be filed with the Court, which will consider an order confirming said intervention following thirty (30) days' notice to the parties. Thereafter, if approved by the Court, such intervenor shall be a party bound by this Judgment and entitled to the rights and privileges accorded under the physical solution herein.

J. Effect of this Amended Judgment on Orders Filed Herein.

This Third Amended Judgment shall not abrogate such rights of additional carryover of unused water rights as may otherwise exist pursuant to orders herein filed June 2, 1977 and September 29, 1977.

THE CLERK WILL ENTER THIS THIRD AMENDED JUDGMENT FORTHWITH.

DATED: 12-23-13

ABRAHAM KHAN

Judge of the Superior Court

APPENDIX 1

Description of Central Basin Area

That certain area in the County of Los Angeles, State of California, situated within the following exterior boundaries:

1. Commencing at the southernmost corner of the basin at a point on the Los Angeles-Orange County boundary 2,000 feet, more or less, northeasterly of the intersection of the center line of Pacific Coast Highway with said County boundary;

2. Thence in a straight line along the trace 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;

3. Thence in a straight line along the trace of said Reservoir Hill Fault to a point on the center line of Pacific Coast Highway, 650 feet west of the intersection of the center lines of said Pacific Coast Highway and Lakewood Boulevard;

4. Thence westerly along the center line of said Pacific Coast Highway to a point 300 feet west of its intersection with the center line of Obispo Avenue;

5. Thence in a straight line to a point about 400 feet east of the intersection of the center lines of Walnut and Creston Avenues;

6. Thence in a straight line along the escarpment of the Cherry Hill Fault to a point about 750 feet west and about 730 feet south of the intersection of Wardlow Road and Long Beach Boulevard;

7. Thence in a straight line to a point about 100 feet north and about 100 feet west of the intersection of Bixby Road and Del Mar Avenue;

8. Thence in a straight line extending through a point in the center line of Del Amo Boulevard about 900 feet west of the center line of the Pacific

Electric Railway to a point in the center line of Alameda Street about 2, 900 feet north of Del Amo Boulevard, the latter distance measured along the center line of Alameda Street;

9. Thence in a straight line along the crest of the Dominguez Hills to a point about 1, 300 feet north and about 850 feet west of the intersection of the center lines of Central Avenue and Victoria Street;

10. Thence in a straight line along the escarpment of the Avalon-Compton Fault to a point about 700 feet west of the intersection of the center lines of Avalon Boulevard and Rosecrans Avenue;

11. Thence in a straight line to a point 400 feet north of the intersection of El Segundo Boulevard and Vermont Avenue and continuing in another straight line to a point 2, 400 feet south and 1, 000 feet east of the intersection of the center lines of Crenshaw and Century Boulevards, the latter point being the approximate southeasterly end of the escarpment of the Potrero Fault;

12. Thence in a straight line along the escarpment of the Potrero Fault and continuing to a point on Northridge Drive about 200 feet northeasterly of its intersection with Marvale Drive, measured along the center line of Northridge Drive;

13. Thence in a straight line to a point on the center line of Stocker Street 1, 800 feet, more or less, northeasterly of the intersection of the center lines of Stocker Street and La Brea Avenue, measured along the center line of Stocker Street;

14. Thence easterly along said last mentioned center line and continuing along said center line, following the same in all its various courses and curves to its first intersection with the boundary line of said City of Los Angeles, being a boundary line in that certain annexation to the City of Los Angeles on April 22, 1948, designated Angeles Mesa Addition No. 5;

15. Thence southeasterly along said boundary line of the City of Los Angeles and continuing along the boundary line of said City of Los Angeles, following the same in all its various courses and curves, to an angle point in said boundary line of the City of Los Angeles being also an angle point in the boundary line of that certain territory annexed to the City of Los Angeles September 18, 1946 and known as Mesa Addition No. 3, said angle point being at the intersection of the southeasterly line of Stocker Avenue, 80 feet wide, as said Stocker Avenue is described in deed to the County of Los Angeles, recorded in Book 13445, page 197, of Official Records, in the office of said Recorder, with the westerly boundary line of that certain territory annexed to the City of Los Angeles July 27, 1922 and known as the Angeles Mesa Addition;

16. Thence northeasterly in a direct line to the intersection of the center line of Stocker Avenue, 80 feet wide, as shown on map of Tract No. 10023, recorded in Book 150, page 46, of Maps, in the office of said Recorder, with that certain center line of Crenshaw Boulevard, formerly Angeles Mesa Drive, 60 feet wide, shown on said map of Tract No. 10023 as the center line of Angeles Mesa Drive per book 6053, page 120, of Deeds;

17. Thence northerly along said certain center line of Crenshaw Boulevard, formerly Angeles Mesa Drive, 60 feet wide, to the southerly line of the northerly 30 feet of Santa Barbara Avenue, 75 feet wide, shown on said map of Tract No. 10023 as the line described in deed recorded in Book 347, page 35, of Official Records;

18. Thence easterly along said line shown on said map of Tract No. 10023 as the line described in deed recorded in Book 347, page 35, of Official Records, to the easterly terminus thereof as shown on said map;

19. Thence northerly in a direct line to the southwesterly corner of Lot 273, Tract No. 809, as shown on map recorded in Book 16, page 74, of Maps, in the office of said Recorder, said southwesterly corner of Lot 273 being a point on the northerly line of the north roadway, 30 feet wide, of Santa Barbara Avenue, as shown on said last mentioned map;

20. Thence easterly along said northerly line of the north roadway, 30 feet wide, of Santa Barbara Avenue, to the southeasterly corner of Lot 52 of said Tract No. 809;

21. Thence in a direct line to the southwesterly corner of Lot 280, Tract No. 4463, as shown on map recorded in Book 48, page 31, of Maps, in the office of said Recorder, said southwesterly corner of Lot 280 being a point in the northerly line of the north roadway of Santa Barbara Avenue as shown on said last mentioned map;

22. Thence easterly along said northerly line of the north roadway of Santa Barbara Avenue to the southeasterly corner of Lot 39 of said Tract No. 4463;

23. Thence continuing easterly along said northerly line of the north roadway of Santa Barbara Avenue to the westerly line of Western Avenue, 60 feet wide, as shown on said map of Tract No. 4463;

24. Thence easterly in a direct line to the intersection of the easterly line of Western Avenue, 60 feet wide, with the northerly line of the north roadway of Santa Barbara Avenue, as said intersection is shown on map of Tract No. 2583, recorded in Book 32, page 58, of Maps, in the office of said Recorder;

25. Thence easterly along said northerly line of the north roadway of Santa Barbara Avenue to its intersection with the westerly line of Denker Avenue, 60 feet wide, as shown on said map of Tract No. 2583;

26. Thence easterly in a direct line to the southwesterly corner of Lot 7 of Dalton Avenue Square as shown on map recorded in Book 14, page 116, of Maps, in the office of said Recorder, said southwesterly corner being a point in the northerly line of the north roadway, 20 feet wide, of Santa Barbara Avenue, as shown on said last mentioned map;

27. Thence easterly along said northerly line of the north roadway, 20 feet wide, of Santa Barbara Avenue, to the southeasterly corner of Lot 56 of said Dalton Avenue Square;

28. Thence easterly in a direct line to the intersection of the center line of Normandie Avenue, 60 feet wide, with the southerly line of the northerly 30 feet of the north roadway, 45 feet wide, of Santa Barbara Avenue, as said intersection is shown on map of Tract No. 11593, recorded in Book 247, page 42, of Maps, in the office of said Recorder;

29. Thence easterly along said southerly line of the northerly 30 feet of the north roadway, 45 feet wide, of Santa Barbara Avenue to the center line of Vermont Avenue, 80 feet wide, as shown on said map of Tract No. 11593;

30. Thence easterly in a direct line to the southwesterly corner of Lot 10, Tract No. 2411, as shown on map recorded in Book 26, Page 77, of Maps, in the office of said Recorder, said southwesterly corner of Lot 10 being a point on the northerly line of the north roadway of Santa Barbara Avenue, as shown on said last mentioned map;

31. Thence easterly along said northerly line of the north roadway of Santa Barbara Avenue to the southeasterly corner of Lot 7 of said Tract No. 2411;

32. Thence easterly in a direct line to the southwesterly corner of Lot 1, Block A of Tract No. 4719, as shown on map recorded in Book 52, page 48, of Maps, in the office of said Recorder, said southwesterly corner of Lot 1, Block A, being a point on the northerly line of the north roadway of Santa Barbara Avenue as shown on said last mentioned map;

33. Thence easterly along said northerly line of the north roadway of Santa Barbara Avenue to the southeasterly corner of Lot 1, Block B, of said Tract No. 4719;

34. Thence southeasterly in a direct line to the intersection of the center line of Figueroa Street, 100 feet wide, with the center line of Santa Barbara Avenue, 60 feet wide, as said intersection is shown on Map of Bowen and Chamberlin's Main and Figueroa Street Tract No. 2, recorded in Book 7, page 5, of Maps, in the office of said Recorder;

35. Thence easterly along said center line of Santa Barbara Avenue, 60 feet wide, as shown on said map of Bowen and Chamberlin's Main and Figueroa Street Tract No. 2, to the center line of Broadway Place, formerly Moneta Avenue, 76 feet wide, as shown on said last mentioned map;

36. Thence easterly along the northerly line of the southerly 30 feet of Santa Barbara Avenue as shown on map of Main Street Boulevard Tract, recorded in Book 5, page 32, of Maps, in the office of said Recorder, to the center line of Main Street, 80 feet wide, as shown on said last mentioned map;

37. Thence easterly along the center line of Santa Barbara Avenue, 60 feet wide, as shown on Map of South Woodlawn, recorded in Book 4, page 5, of Maps, in the office of said Recorder, to the southeasterly line of the northwesterly 40 feet of San Pedro Street, as shown on said last mentioned Map;

38. Thence along said southeasterly line of the northwesterly 40 feet of San Pedro Street as shown on said Map of South Woodlawn to the center line of Santa Barbara Avenue, formerly Defiance Street, 60 feet wide, as shown on map of the Mettler Tract, recorded in Book 6, page 50, of Maps, in the office of said Recorder;

39. Thence easterly along said center line of Santa Barbara Avenue, formerly Defiance Street, 60 feet wide, to the center line of Griffith Avenue, 60 feet wide, as said Griffith Avenue is shown on said map of the Mettler Tract;

40. Thence southeasterly in a direct line to the point of intersection of the westerly line of McKinley Avenue, formerly Eureka Street, with the westerly prolongation of the center line of Santa Barbara Avenue, formerly Reno Street, 60 feet wide, as said streets are shown on Map of the Nadeau Orange Tract, recorded in Book 25, page 34, of Miscellaneous Records, in the office of said Recorder;

41. Thence easterly along said westerly prolongation and along said center line of Santa Barbara Avenue, formerly Reno Street, 60 feet wide, as said street is shown on said Map of the Nadeau Orange Tract, and continuing easterly along the easterly prolongation of said center line to the easterly line of Central Avenue, 80 feet wide, as shown on Map of Lienau's

Cottage Home Tract, recorded in Book 28, page 48, of Miscellaneous Records, in the office of said Recorder;

42. Thence northerly along said easterly line of Central Avenue, 80 feet wide, as shown on said map of Lienau's Cottage Home Tract, to the northwesterly corner of Lot 11, Block 1, of said Lienau's Cottage Home Tract, said northwesterly corner of Lot 11 being a point on the southerly line of Santa Barbara Avenue, formerly Herbert Street, as shown on said last mentioned map;

43. Thence easterly along said southerly line of Santa Barbara Avenue, formerly Herbert Street, to the northeasterly corner of Lot 1, Block 1, of said Lienau's Cottage Home Tract;

44. Thence easterly in a direct line to the northwesterly corner of Lot 1 of the Oakley's Home Tract, as shown on map recorded in Book 5, page 18, of Maps, in the office of said Recorder, said northwesterly corner of Lot 1 being a point on the southerly line of Santa Barbara Avenue, formerly 36th Street, 60 feet wide, as shown on said last mentioned map;

45. Thence easterly along said southerly line of Santa Barbara Avenue, formerly 36th Street, 60 feet wide, as shown on said map of Oakley's Home Tract and continuing easterly along the easterly prolongation of said southerly line to the westerly line of that certain tract of land shown on Plat Showing the Property of George Stephenson, recorded in Book 53, page 31, of Miscellaneous Records, in the office of said Recorder;

46. Thence southerly along said westerly line of said certain tract of land shown on Plat Showing the Property of George Stephenson to the southerly line of said certain tract of land, said southerly line being shown on said Plat as having a bearing of S 81° E and a distance of 7.03 chains;

47. Thence easterly along said southerly line of said certain tract of land to the southeasterly line of said certain tract of land, said southeasterly line being shown on said Plat as having a bearing of N 25° E and a distance of 18.84 chains;

48. Thence northeasterly along said southeasterly line of said certain tract of land, being also along the northwesterly line of Compton Avenue, formerly Orange Street, 60 feet wide, as shown on said Plat, to the westerly prolongation of the center line of Santa Barbara Avenue, formerly 30th Street, 60 feet wide, as shown on map of the Deeble Tract, recorded in Book 9, page 188, of Maps, in the office of said Recorder;

49. Thence easterly along said westerly prolongation and along said center line of Santa Barbara Avenue, formerly 30th Street, 60 feet wide, as

shown on said map of the Deeble Tract, to the westerly line of The Morgan Tract, as shown on map recorded in Book 5, page 5, of Maps, in the office of said Recorder;

50. Thence easterly in a direct line to the point of intersection of the easterly line of said Morgan Tract with the center line of Santa Barbara Avenue, formerly 30th Street, 50 feet wide, as said street is shown on Map of East Jefferson Street Tract No. 2, recorded in Book 7, page 92, of Maps, in the office of said Recorder;

51. Thence easterly along said center line of Santa Barbara Avenue, formerly 30th Street, 50 feet wide, and continuing easterly along the easterly prolongation of said center line of Santa Barbara Avenue to the east line of the west roadway, 40 feet wide, of Long Beach Avenue as shown on said map of East Jefferson Street Tract No. 2;

52. Thence easterly in a direct line to the point of intersection of the westerly line of the east roadway, 40 feet wide, of Long Beach Avenue as shown on Map of East Jefferson Street Tract No. 1, recorded in Book 7, page 113, of Maps, in the office of said Recorder, with the westerly prolongation of the center line of Santa Barbara Avenue, formerly 30th Street, 50 feet wide, as said street is shown on said last mentioned Map;

53. Thence easterly along said westerly prolongation and along said center line of Santa Barbara Avenue, formerly 30th Street, 50 feet wide, and continuing easterly along the easterly prolongation of said center line to the first intersection with the boundary line of the City of Los Angeles, said intersection being in Alameda Street;

54. Thence northerly and easterly along said boundary line of the City of Los Angeles to the easterly line of Alameda Street, 80 feet wide, as shown on map of Huntington Industrial Tract recorded in Book 6, page 10, of Maps, in the office of said Recorder;

55. Thence northerly along said easterly line of Alameda Street, 80 feet wide, as shown on said map of Huntington Industrial Tract to the northwesterly corner of Block A of said Huntington Industrial Tract;

56. Thence in a direct line to the southeasterly corner of Lot 73 of the Weiss Tract No. 2, as shown on map recorded in Book 2, page 42, of Maps, in the office of said Recorder, said southeasterly corner of Lot 73 being a point on the westerly line of Alameda Street, 80 feet wide, as shown on said last mentioned map;

57. Thence northerly along said westerly line of Alameda Street, 80 feet wide, to the northeasterly corner of Lot 62 of said Weiss Tract No. 2.

58. Thence northerly in a direct line to the southeasterly corner of Lot 189, Block A, of the Meade and Dalton Tract, as shown on map recorded in Book 37, page 50, of Miscellaneous Records, in the office of said Recorder, said southeasterly corner of Lot 189 being a point on the westerly line of Alameda Street, 80 feet wide, as shown on said last mentioned map;

59. Thence northerly along said westerly line of Alameda Street, 80 feet wide, to the northeasterly corner of Lot 1, Block A, of said Meade and Dalton Tract;

60. Thence easterly along the easterly prolongation of the northerly line of said Lot 1, Block A, of the Meade and Dalton Tract to the easterly line of Alameda Street, 80 feet wide, as shown on map of the Central Industrial Tract, recorded in Book 4, page 21, of Maps, in the office of said Recorder;

61. Thence northerly along said easterly line of Alameda Street, 80 feet wide, to the northwesterly corner of said Central Industrial Tract;

62. Thence continuing northerly along the easterly line of Alameda Street, 80 feet wide, as shown on map of the Hughes Manufacturing Co.'s Tract, recorded in Book 7, page 105, of Maps, in the office of said Recorder, to the southwesterly corner of Lot 7, Block A, of Ninth Street Tract Extension, as shown on map recorded in Book 55, page 89, of Miscellaneous Records, in the office of said Recorder;

63. Thence continuing northerly along the easterly line of Alameda Street as shown on said map of Ninth Street Tract Extension to northwesterly corner of Lot 1, Block A, of said Ninth Street Extension, said northwesterly corner of Lot 1 being a point on the easterly line of Alameda Street as shown on map of H. N. Elliott's Ninth Street Tract, recorded in Book 53, page 98, of Miscellaneous Records, in the office of said Recorder;

64. Thence continuing northerly along said easterly line of Alameda Street as shown on said map of H. N. Elliott's Ninth Street Tract and continuing northerly along the northerly prolongation of said easterly line to that certain line designated City Engineer's center line of Olympic Boulevard on map of Tract No. 11512, recorded in Book 221, page 29, of Maps, in the office of said Recorder;

65. Thence easterly along said certain line designated City Engineer's center line of Olympic Boulevard to the intersection with the center line of Mateo Street, as shown on said map of Tract No. 11512, said intersection being also shown on map of Tract No. 10068, recorded in Book 141, page 44, of Maps, in the office of said Recorder, as the intersection of the city center lines of Mateo Street, 60 feet wide, and Olympic Boulevard, formerly Ninth Street, 80 feet wide;

66. Thence continuing easterly along said city center line of Olympic Boulevard, formerly Ninth Street, 80 feet wide, to the intersection with the westerly prolongation of that certain center line of Olympic Boulevard shown on map filed in Book 52, page 5, of Record of Surveys, in the office of said Recorder, as having a bearing of North 89° 33' 00" West;

67. Thence easterly along said westerly prolongation and continuing easterly along said certain center line of Olympic Boulevard, shown on said map filed in Book 52, page 5, of Record of Surveys, as having a bearing of North 89° 33' 00" West, to the westerly line of the Official Bed of the Los Angeles River, as shown on said last mentioned map;

68. Thence easterly in a direct line to a point on the easterly line of the Official Bed of the Los Angeles River as shown on map of Tract No. 12316, recorded in Book 263, page 5, of Maps, in the office of said Recorder, said point being at the westerly terminus of that certain course of the center line of Olympic Boulevard shown on said last mentioned map as having a bearing of North 89° 21' West and a distance of 214.13 feet;

69. Thence easterly along said center line of Olympic Boulevard and continuing easterly along the center line of Olympic Boulevard as shown on said map of Tract No. 12316 to the intersection with the center line of that portion of Rio Vista Avenue, 60 feet wide, extending northerly from said Olympic Boulevard, as shown on said map of Tract No. 12316, said intersection being also shown on map of Tract No. 6783 recorded in Book 99, page 77, of Maps, in the office of said Recorder, as the intersection of Olympic Boulevard, formerly Ninth Street, 100 feet wide, with said center line of Rio Vista Avenue;

70. Thence southeasterly along said center line of Olympic Boulevard, formerly Ninth Street, 100 feet wide, and continuing southeasterly along said center line to the intersection with the center line of Mines Avenue, as shown on said map of Tract No. 6783;

71. Thence easterly along said center line of Olympic Boulevard to the intersection with the center line of Lorena Street, 82.50 feet wide, as shown on said map of Tract No. 6783;

72. Thence easterly in a direct line to the most westerly corner of Lot 636 of Tract No. 941, as shown on map recorded in Book 16, pages 194 and 195, of Maps, in the office of said Recorder, said most westerly corner being a point on the southerly boundary line of said Tract No. 941;

73. Thence easterly along said southerly boundary line of Tract No. 941 to the most easterly corner of Lot 480 of said Tract No. 941;

74. Thence easterly in a direct line to the intersection of the northeasterly line of Hollenbeck Avenue, 82.50 feet wide, as shown on said map of Tract No. 941, with the southerly boundary line of said Tract No. 941;

75. Thence easterly along said last mentioned southerly boundary line of Tract No. 941 to the boundary line of the City of Los Angeles;

76. Thence northerly and easterly along the boundary line of the City of Los Angeles to an angle point in the boundary line, said point also being a point in the boundary of the City of Monterey Park, at the northwest corner of Section 29, Township 1 South, Range 12 West, S.B.B. & M.;

77. Thence southerly along the boundary line of said City of Monterey Park and continuing along the boundary line of said City of Monterey Park, following all its various courses and curves, to its first intersection with the boundary line of the City of Montebello, said intersection being in Pomona Boulevard (formerly Third Street) between Gerhart Avenue and Bradshaw Avenue, at the north quarter section corner of fractional Section 4, Township 2 South, Range 12 West, S.B.B. & M., as shown on map of the Repetto Rancho recorded in Book 759, pages 21 and 22, of Deeds, in the Office of the Recorder of the County of Los Angeles;

78. Thence easterly along the common boundary line of said City of Monterey Park and said City of Montebello to the easterly terminus of said common boundary line, said easterly terminus being at the intersection of said common boundary line with the southwesterly line of Rancho La Merced, as shown on map recorded in Book 13, page 24, of Patents, in the office of said Recorder, and being in the south line of Township 1 South, Range 12 West, S.B.B. & M.;

79. Thence easterly along the boundary line of said City of Monterey Park and said south line of Township 1 South, Range 12 West, S.B.B. & M., to an angle point in said boundary line of the City of Monterey Park;

80. Thence easterly along said south line of Township 1 South, Range 12 West, S.B.B. & M., to the easterly line of Tract No. 10063 as shown on map recorded in Book 179, pages 32 to 34, inclusive, of Maps, in the office of said Recorder;

81. Thence southerly along said easterly line of Tract No. 10063 to its first intersection with the boundary line of said City of Montebello;

82. Thence easterly along the boundary line of said City of Montebello and continuing along the boundary line of said City of Montebello, following all its various courses and curves, to its intersection with the Compromised Dividing Line between the Rancho Paso de Bartolo on the South Side and the Ranchos La Puente, Potrero de Felipe Lugo and La Merced on the North Side, as shown on map filed in Book 1, page 73, Record of Surveys, in the office of said Recorder;

83. Thence easterly along said Compromised Dividing Line to a point thereon, distant 1068.62 feet westerly, measured along said Compromised Dividing Line, from the center line of Cate Road (now Durfee Avenue), 40 feet wide, as described in deed to the County of Los Angeles, recorded in Book 1207, page 74, of Deeds, in the office of said Recorder;

84. Thence easterly in a direct line to the point of intersection of said center line of Cate Road (now Durfee Avenue), with a line bearing South 86° 40' 44" West from a point in the northwesterly line of Lot 12, Tract No. 688, as shown on map recorded in Book 15, page 171, of Maps, in the office of said Recorder, said last mentioned point being distant North 24° 55' 13" East 556.72 feet, measured along said northwesterly line of Lot 12, from the southwesterly corner of said Lot 12;

85. Thence North 86° 40' 44" East 2759.06 feet, more or less, to the northwesterly prolongation of the northeasterly line of Parcel 1 of land described in deed to Walter G. Kruse, et ux., recorded in Book 25982, page 70, of Official Records, in the office of said Recorder;

86. Thence easterly in a direct line to an angle point in the southerly line of Lot 11, of aforementioned Tract No. 688, from which angle point the most westerly corner of said Lot 11 is shown on said map of Tract No. 688 to be distant 453.30 feet S. 68° 51-1/2' W., measured along said southerly line of Lot 11;

87. Thence southerly in a direct line to an angle point in the northwesterly line of Lot 1, Cohn's Partition of Lots 26, 27, 29 and 32 as shown on map recorded in Book 60, pages 3 and 4, of Miscellaneous Records, in the office of said Recorder, said last mentioned angle point being shown on said map of Cohn's Partition of Lots 26, 27, 29 and 32 to be located as follows:

Beginning at the most westerly corner of said Lot 1; thence, N. 49° 52' E. 9.00 chains; thence N. 23° 13' E. 5.09 chains to said last mentioned angle point;

88. Thence southwesterly along said northwesterly line of Lot 1 to said most westerly corner of Lot 1, said most westerly corner also being the most northerly corner of Lot 2 of said Cohn's Partition of Lots 26, 27, 29 and 32;

89. Thence southwesterly along the northwesterly line of said Lot 2 and continuing along the line of said Lot 2, following all its various courses, to the most westerly corner of Lot 7, of said Cohn's Partition of Lots 26, 27, 29 and 32;

90. Thence southerly along the westerly line of said Lot 7 and continuing along the southerly prolongation of said westerly line of Lot 7 to the easterly prolongation of the center line of Guirado Street, 40 feet wide, (now Pioneer Boulevard) as shown on map of Tract No. 3584, recorded in Book 38, page 70, of Maps, in the office of said Recorder;

91. Thence along said easterly prolongation of the center line of Guirado Street, 40 feet wide, (now Pioneer Boulevard), to the center line of Workman Mill Road as described in deed to the County of Los Angeles recorded in Book 12367, page 75, of Official Records, in the office of said Recorder;

92. Thence southerly along said center line of Workman Mill Road, following all its various courses and curves, to the northerly terminus of that certain course having a bearing of N. 6° 10' 15" E. in the center line of Workman Mill Road, as shown on map of Tract No. 6041 recorded in Book 180, pages 12 to 14, inclusive, of Maps, in the office of said Recorder;

93. Thence southerly along the center line of Workman Mill Road as shown on said map of Tract No. 6041 and as shown on map of Tract No. 14971, recorded in Book 341, pages 5 to 10 inclusive, of Maps, in the office of said Recorder, to the westerly prolongation of the northerly line of Lot 3, shown on said map of Tract No. 14971 as having a bearing and length of S. 83° 49' 45" E., 221.86 feet, said northerly line of Lot 3 also being in the northerly boundary line of said Tract 14971;

94. Thence easterly along said westerly prolongation, said northerly line of Lot 3 and said northerly boundary line of Tract No. 14971 and continuing along the boundary line of said Tract No. 14971, following all its various courses, to the westerly line of Lot 24, of Cohn's Partition of Lot 31, as shown on map recorded in Book 60, page 6, of Miscellaneous Records, in the office of said Recorder;

95. Thence northerly along said westerly line of Lot 24 to the westerly prolongation of the north line of Section 16, Township 2 South, Range 11 West, S.B.B. U M.;

96. Thence easterly along said westerly prolongation and along the north line of said Section 16, to the northeast corner of said Section 16;

97. Thence southerly in a direct line to the northeasterly corner of the City of Whittier, said northeasterly corner being also the northeasterly corner of that certain annexation to said City of Whittier designated Annexation of 1907;

98. Thence southerly along the boundary line of said City of Whittier to its intersection with the north line, or its westerly prolongation, of Section 22, said last mentioned Township and Range;

99. Thence easterly along said north line of Section 22, or along said westerly prolongation and said north line of Section 22, to the northeast corner of said Section 22;

100. Thence southerly along the east line of said Section 22 to the west quarter corner of Section 23, said last mentioned Township and Range;

101. Thence easterly along the east and west quarter section lines of said Section 23 to the east quarter corner of said Section 23;

102. Thence southerly along the east line of said Section 23 to the northwest corner of Section 25, said last mentioned Township and Range;

103. Thence easterly along the north line of said Section 25 to the westerly line of Tract No. 2390 as shown on map recorded in Book 23, page 29, of Maps, in the office of said Recorder;

104. Thence northerly along said westerly line of Tract No. 2390, to the northwesterly corner of said Tract;

105. Thence easterly along the northerly line of said Tract No. 2390 to the northeasterly corner of said Tract;

106. Thence southerly along the easterly line of said Tract No. 2390 to the southeasterly corner of said Tract, said corner also being in northerly line of Lot 3 of the New England Oil Company Tract, as shown on map recorded in Book 17, page 131, of Maps, in the office of said Recorder;

107. Thence easterly and southerly along the northerly and easterly lines of said Lot 3 to the southeasterly corner of said Lot 3, said corner also being in the southerly line of said New England Oil Company Tract;

108. Thence easterly and northerly along the southerly and easterly lines of said New England Oil Company Tract to the northeasterly corner of Lot 13 of said last mentioned Tract, said northeasterly corner also being in the southerly line of Lot 5, Tract No. 4380, as shown on map recorded in Book 48, pages 46 and 47, of Maps, in the office of said Recorder;

109. Thence easterly along said southerly line of Lot 5 to the southeasterly corner of said Lot 5;

110. Thence easterly in a direct line to the southwesterly corner of Lot 2, Tract No. 3422, as shown on map recorded in Book 37, page 51, of Maps, in the office of said Recorder;

111. Thence easterly along the southerly line of said Lot 2, to the easterly line of Rancho La Habra, as shown on map recorded in Book 1, pages 275 and 276, of Patents, in the office of said Recorder;

112. Thence southerly along said easterly line of Rancho La Habra to its intersection with the southerly boundary line of the County of Los Angeles;

113. Thence westerly along said southerly boundary line of the County of Los Angeles and continuing along the boundary line of said County of Los Angeles, following all its various courses and curves to the point of beginning.

The boundary line of the County of Los Angeles and the boundary line of the City of Los Angeles referred to herein, except where otherwise expressly designated, are such boundary lines as the same existed at 12:00 noon on October 31, 1958.

APPENDIX 2

CURRENT VERSION OF WATER RIGHT HOLDERS

Central Basin Water rights Holders

Party ID	Party	Allowed Pumping Allocation (APA)
0020	A B C Unified School District	298.00
0107	American Textile Maintenance Company	65.00
0125	Angeles Abbey Memorial Park, Inc	4.00
0127	Aqua Capital Management LP	3,760.00
0120	Arco Metals Co, American Brass	0.00
0150	Artesia Cemetery District	12.00
0160	Artesia, City of	24.00
0210	Atkinson Brick Company	9.00
0220	Atlantic Richfield Company	0.00
0229	Automobile Club of Southern California	6.00
0265	Baker Commodities, Inc	60.00
0387	Bell Gardens, City of	1,914.00
0420	Bellflower Home Garden Water Company	306.00
0430	Bellflower Unified School District	89.00
0410	Bellflower, City of	1,380.00
0445	Bellflower-Somerset Mutual Water Company	4,312.88
0642	Boy Scouts of America, Long Beach Area	1.00
0657	Buell, Mary Dolores	1.00
0679	California-American Water Company	2,067.00
0681	California Domestic Water Company	87.00
0686	California, State of	50.00
0740	California Water Service Company	11,774.00
0742	California Water Service Company (Dominguez)	6,480.00
0795	Central Basin Municipal Water District	50.65
0826	Cerritos, City of	4,680.03
0830	Cerritos Community College District	147.00
0855	Chang, I-Hsin and Associates	1.00
0885	Chevron U S A, Inc	94.00
0970	Coast Packing Company	530.00
1017	Commerce, City of	5,081.00
1020	Compton, City of	5,780.00
1030	Compton Unified School District	38.00
1115	Corning Trust	3.75
1165	Crandell, F.J.	1.00
1236	Darling-Delaware Company, Inc	117.00
1385	Dolan, J.E., P.A., & T.P.	2.00

Central Basin Water rights Holders

Party ID	Party	Allowed Pumping Allocation (APA)
1450	Downey, City of	16,553.62
1550	El Rancho Unified School District	55.00
1560	Emoto, John H	2.00
1572	Equilon Enterprises, LLC	6.00
1597	Exide Technologies	62.00
1606	Farmers & Merchants Trust Co of Long Beach	14.00
1700	Flesch, Elizabeth, et al	14.00
1719	Footbridge 1 Trust	3.75
1720	Ford Motor Company	4.50
1726	Frampton, Harvey	10.00
1735	Frampton, William H	25.00
1843	Golden State Water Company	16,439.20
1960	Gordon, Robert E	4.00
1988	Graham, Hugh W or Marcia K, Trustees	6.00
2155	Harada Brothers	6.00
2209	Hathaway, Jesse R	4.07
2211	Hathaway, Merrie F	1.86
2212	Hathaway, Richard F, Jr.	4.07
2213	Hathaway, William A	4.07
2214	Hathaway, Loline	4.08
2378	Huntington Park, City of	3,853.00
2440	Inglewood Park Cemetery	317.00
2493	Jones Company, The	0.00
2710	Kotake, Masao	27.97
2749	La Habra Heights County Water District	2,596.00
2770	Lakewood, City of	9,432.00
2884	Lincoln Memorial Park, Inc	34.00
2890	Little Lake Cemetery District	14.00
2910	Long Beach, City of	32,692.00
2920	Los Angeles, City of	15,000.00
2930	Los Angeles County Rancho Los Amigos	490.00
3010	Lunday-Thagard Oil Company	212.00
3040	Lussman, Paul H, Jr., et al	7.00
3060	Lynwood, City of	5,337.00
3080	Lynwood Park Mutual Water Company	222.00
3140	Martin, Mary	28.00

Central Basin Water rights Holders

Party ID	Party	Allowed Pumping Allocation (APA)
3170	Maywood Mutual Water Company No 1	741.00
3180	Maywood Mutual Water Company No 2	912.00
3190	Maywood Mutual Water Company No 3	1,407.00
3210	Mellano, G, et al	13.00
3301	Mitsuuchi, Mary F Trust	11.00
3351	Montebello, City of	386.50
3360	Montebello Land and Water Company	1,694.00
3501	Nancy Dee Keane Living Trust	4.00
3514	New England Mutual Life Insurance Company	2.00
3517	Newark Group, Inc., The	257.00
3545	Northrop Grumman Systems Corporation	4.50
3550	Norwalk, City of	2,273.00
3560	Norwalk-La Mirada Unified School District	378.00
3578	O N K Farms	8.00
3605	Oltmans Construction Company	3.00
3640	Orchard Dale Water District	1,254.00
3705	PABCO Building Products, LLC	500.00
3745	Paradise Memorial Park	16.00
3755	Paramount, City of	5,883.00
3760	Paramount Unified School District	46.00
3780	Park Water Company	2.30
3787	Patrician Associates Inc/Majestic Realty Company	12.00
3828	Petersburg, L.P.	300.00
3847	Pico Boys Baseball, Inc	13.00
3853	Pico Rivera, City of	5,579.00
3850	Pico Water District	3,624.00
3958	Puente Basin Water Agency	365.00
3994	Randall, Villis Family Trust	4.00
4108	Rippy, Francine	4.07
4115	Rockview Dairies, Inc	101.00
4116	Rocky Mountain Industries, Inc	0.00
4150	Roman Catholic Archbishop of Los Angeles	347.00
4160	Rosales, Elvira C	3.00
4165	Rosing, L S Trust and P Schwartz	6.00
4175	Rowland Water District	1.00
4300	St John Bosco School	42.00

Central Basin Water rights Hold..s

Party ID	Party	Allowed Pumping Allocation (APA)
4330	San Gabriel Valley Water Company	2,565.35
4335	Santa Fe Springs, City of	4,035.78
4345	Sativa - Los Angeles County Water District	474.00
4349	Scantlebury, Robert P	4.00
4378	September Properties, LLC	22.00
4450	Signal Hill, City of	2,022.00
4473	Simmons Survivor's Trust	33.00
4590	South Gate, City of	11,183.00
4540	South Montebello Irrigation District	1,268.00
4549	Southern California Edison Company	670.00
4685	Statewide Stations, Inc	1.00
4810	Suburban Water Systems	3,721.00
4915	Taurek, Mary	1.00
4934	Tesoro Logistics Operations	54.00
4980	Tract Number One Hundred and Eighty Water Co	2,137.00
4990	Tract 349 Mutual Water Company	423.00
5019	Tucker, W and/or Bobby Robertson	8.00
5358	Vangrootheest, Ernest A	10.00
5460	Vernon, City of	7,539.00
5490	Virginia Country Club	274.00
5610	Walnut Park Mutual Water Company	996.00
5528	WEMS, Inc.	8.00
5660	Whittier, City of	895.00
5670	Whittier Union High School District	100.00
5750	Wolfsberger, Helen and Christine Joseph	2.00
5800	Yamamoto, George and Alice	14.00
5903	Zane Living Trust	0.00
	Central Basin Total	**217,367.00**

Appendix 3

CENTRAL BASIN SMALL WATER PRODUCERS GROUP

As used in the Central Basin Judgment, the "Small Water Producers Group" shall refer to a voluntary group consisting of parties to the Central Basin Judgment with an Annual Pumping Allocation no greater than 5,000 acre-feet, acting jointly to represent its members with regards to interests specific to them and their constituents and/or customers concerning the management of the Central Basin and the administration and enforcement of this Judgment. Membership in the Small Water Producers Group may be modified from time to time by affirmative vote of the then-current composition of said Group, provided that each member thereof shall hold no greater than 5,000 acre-feet of Allowed Pumping Allocation.

Any benefit or right attributed to the Group by the Judgment, including the reserved seat on the Water Rights Panel, shall be valid and enforceable, so long as the Group's membership consists of a minimum of 5 parties to the Central Basin Judgment who are Water Purveyors., .

As of the time of entry of this Third Amended Judgment, the Small Water Producers Group consists of:

Bellflower-Somerset Mutual Water Company
La Habra Heights County Water District
Montebello Land and Water Company
City of Norwalk
Orchard Dale Water District
Pico Water District
Sativa -- Los Angeles County Water District
South Montebello Irrigation District

Appendix 4

PERMITTED EXISTING EXPORTS

The Agreement among Rowland Water District, on the one hand, and La Habra Heights County Water District and Orchard Dale Water District, on the other hand, allowing for maximum production of 2,500 acre-feet per year.

The Agreement between Puente Basin Water Agency and California Domestic Water Company, allowing for maximum production of 2,500 acre-feet per year.

PROOF OF SERVICE

STATE OF CALIFORNIA, COUNTY OF LOS ANGELES

I am employed in the county of LOS ANGELES, State of California. I am over the age of 18 and not a party to the within action; my business address is: **301 North Lake Avenue, 10th Floor, Pasadena, California 91101**

On DECEMBER 27, 2013, I served the foregoing document described as **THIRD AMENDED JUDGMENT** on **INTERESTED PARTIES** in this action

☑ by placing the true copies thereof enclosed in sealed enveloped addressed as stated on the attached mailing list:

☐ by placing ☐ the original ☐ a true copy thereof enclosed in sealed envelopes addressed as follows:

SEE ATTACHED MAILING LIST

☑ BY MAIL

☐ I deposited such envelope in the mail at PASADENA, California.
The envelope was mailed with postage thereon fully prepaid.

☑ I caused such envelope to be deposited in the mail at PASADENA, California.
The envelope was mailed with postage thereon fully prepaid.
I am "readily familiar" with firm's practice of collection and processing correspondence for mailing. It is deposited with U.S. postal service on that same day in the ordinary course of business. I am aware that on motion of party served, service is presumed invalid if postal cancellation date or postage meter date is more than 1 day after date of deposit for mailing in affidavit.

Executed on DECEMBER 27, 2013, at PASADENA, California.

☐ ** (BY PERSONAL SERVICE) I delivered such envelope by hand to the offices of the addressee.
Executed on _____ at _____, California.

☑ (State) I declare under penalty of perjury under the laws of the State of California that the above is true and correct.

☐ (Federal) I declare that I am employed in the office of a member of the bar of this court at whose direction the service was made.

PAMELA J. CHILDRESS
(NAME)

Pamela J. Childress

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CENTRAL BASIN SERVICE LIST - CASE NO. C 786 656

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Appendix 6-2

Watermaster Service in the Central Basin

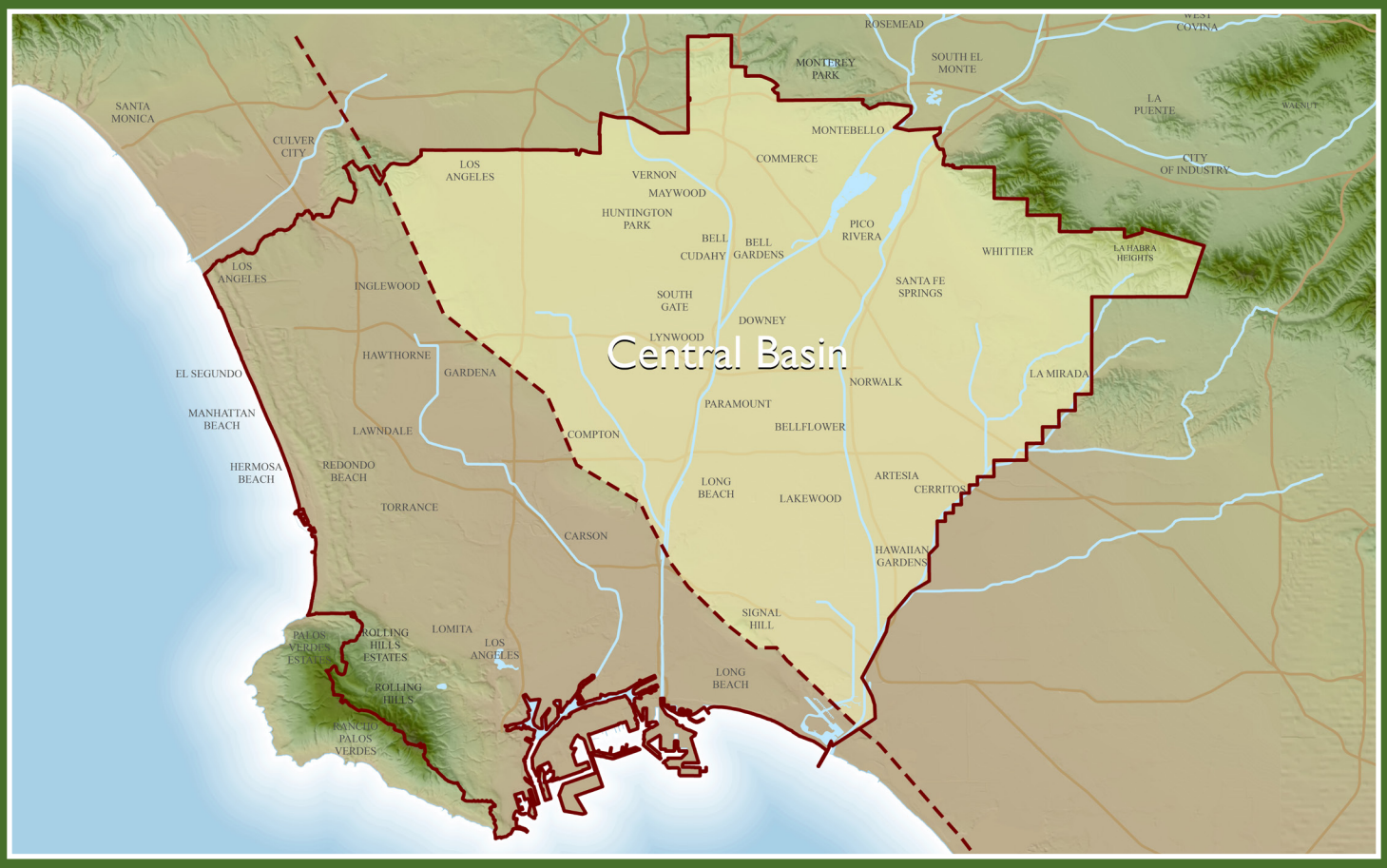
Los Angeles County

July 1, 2019 – June 30, 2020

WATERMASTER SERVICE
IN THE CENTRAL BASIN - LOS ANGELES COUNTY

July 1, 2019 - June 30, 2020

November 2020



CENTRAL BASIN WATERMASTER

CENTRAL BASIN
WATER RIGHTS PANEL

Prepared by the Administrative Body

WRD
WATER REPLENISHMENT DISTRICT

This report is available at www.wrd.org

Printed copies are available.
Send requests to:

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WATERMASTER SERVICE

IN THE CENTRAL BASIN
LOS ANGELES COUNTY

July 1, 2019 - June 30, 2020

November 2020

CENTRAL BASIN
WATER RIGHTS PANEL

WRD
WATER REPLENISHMENT DISTRICT

Prepared by the

Water Replenishment District of Southern California (WRD)

Central Basin Administrative Body

for the

Central Basin Watermaster Water Rights Panel

Adopted on

November 12, 2020

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Governance
2019-2020 AY

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Summary of Pertinent Data

Item	Administrative Year 2018 - 2019	Administrative Year 2019 - 2020
Parties	148	149
Rights Holders	126	127
Active pumpers	73	70
Active non-parties	0	0
Allowed pumping allocation (acre-feet)	217,367	217,367
Water put into storage	6,457.15	16,923.31
Rainfall (inches)	19.01	13.69
Injection at the Alamitos Barrier project (acre-feet)[1]	3,301	3,442
Spreading operations (acre-feet)[2]	134,801	83,660
Watermaster expenses, per APA	$1.76	$1.71
Watermaster expenses, total[3]	$383,635	$372,766
APA Extractions (acre-feet)[4]	180,382	173,033
Storage Extractions (acre-feet)	4,656.47	3,665.77
Recycled water use by entities (acre-feet)	10,366	10,632
Imported water use by entities (acre-feet)[5]	103,649	118,168
Exported water use by parties (acre-feet)	1,481	1,122
Total water use by parties (acre-feet)[6]	**297,572**	**304,377**

[1] Includes injection only on the Los Angeles County portion of the Alamitos Barrier.
[2] Provisional information from Los Angeles County Department of Public Works.
[3] For the 2019-2020 AY, Water Rights Panel $173,893.61, Administrative Body $198,872.57.
[4] Excludes extractions by parties with non-consumptive water use permits and by non-parties.
[5] Includes groundwater imported from the San Gabriel Basin.
[6] Excludes exported water use by parties.

Introduction

A. Executive Summary

This 2019-2020 Watermaster Report, developed by the Administrative Body and adopted by the Water Rights Panel, provides information on groundwater extractions, storage accounts, use of imported water and recycled water, replenishment operations, and the budget and finances of the Central Basin (Basin) Watermaster during the 2019-2020 administrative year (AY). This report complies with the provisions set forth in the Central Basin Third Amended Judgment (Judgment).

During the 2019-2020 AY, the Basin experienced a decrease in groundwater extractions; contributing factors include the coronavirus pandemic that created a stay-at-home order for residents and closed non-essential businesses starting in mid-March 2020, the shutdown of production wells due to concerns of potential PFAS contamination, and the substantial late-season rainfall in March and April 2020. Yet, a noticeable highlight in the Basin includes the 16,923.31 acre-feet (Af) of water put into storage for 2019-2020 AY, which is a 162% increase from the previous AY. Also, the Court granted a stipulation in intervention to OU2 Environmental Remediation Trust, which makes them a new Party to the Judgment. Furthermore, zero imported water was purchased by the Water Replenishment District of Southern California (WRD) for groundwater replenishment, due to its completion of the Albert Robles Center for Water Recycling and Environmental Learning (ARC), which replaced the imported water with advanced treated recycled water for groundwater replenishment.

The report is organized by three sections, including Water Use, Water Supply, and Watermaster Costs and Budget. In addition, the report provides various tables and figures describing the narrated information. Lastly, for the first time, this annual report has a new appendix the "Erratum of the Central Basin Watermaster Annual Report for July 1, 2018- June 30, 2019," which provides a list of corrected errors to the previous annual report (Appendix D).

B. Background

The Central Basin Watermaster Service Area overlies approximately 227 square miles of the Basin in southeastern Los Angeles County. Figure 1 shows the location and boundaries of the Central Basin Watermaster Service Area (adjudicated boundary). The Watermaster Service Area is bounded by the Newport-Inglewood Uplift on the southwest, the Los Angeles-Orange County line on the southeast, and an irregular line that approximately follows Stocker Street, Martin Luther King Boulevard, Alameda Street, Olympic Boulevard, the boundary between the City of Los Angeles and unincorporated East Los Angeles, and the foot of the Merced Hills and Puente Hills on the north. Twenty-three incorporated cities and several unincorporated communities lie within the Watermaster Service Area. Groundwater from the Basin provides a substantial portion of the water supply needed by the residents, businesses, and industries in the area overlying the Basin.

More than 60 years ago, groundwater overdraft and declining water levels in the Basin threatened the area's groundwater supply and caused the intrusion of seawater into the aquifers in the southern part of the Basin. However, timely legal action, adjudication of the water rights, and the creation of WRD halted the overdraft and prevented further damage to the Basin. Since that time, groundwater extraction from the Basin has been limited to the amounts set by a Superior Court Judgment and monitored by a Court-appointed Watermaster.

The first Judgment was finalized and signed in 1965 and it appointed the Department of Water Resources (DWR) as the Watermaster. Since its inception, the Judgment has been amended three times. The Judgment was first amended in 1980 to provide for a transition in the administrative year from a water year (October 1 to September 30) to a fiscal year (July 1 to June 30). The Judgment was amended for the second time in 1985 to modify the annual budget ($20 minimum assessment) and exchange pool provisions. In addition, the second amendment modified carryover and overproduction provisions, defined carryover, and provided for exemptions for extractors of contaminated groundwater. The Third Amended Judgment was finalized on December 23, 2013. For the first time, the Court allowed Parties to have direct input into how the Judgment is administered and enforced. The Judgment confirmed the retirement of DWR as the Watermaster and created three separate bodies that assist the Court in the administration and enforcement of the provisions of the Judgment.

The first body is the Administrative Body, which administers the Watermaster accounting and reporting functions. The WRD was appointed by the Court to fulfill this role.

The second body is the Water Rights Panel, which enforces issues related to the pumping rights within the adjudication. The Water Rights Panel is made up of seven water rights holders who are elected by other rights holders in the Central Basin. Members of the Water Rights Panel during the 2019-2020 AY included the City of Downey, Golden State Water Company, City of Lakewood, City of Long Beach, Orchard Dale Water District, City of Signal Hill and City of Paramount.

The third body is the Storage Panel, which is comprised of the Water Rights Panel and the WRD Board of Directors; together they review and approve certain groundwater storage efforts.

Water Use

A. Allowed Pumping Allocation Extractions by Parties

The Judgment limits the amount of groundwater each Party to the Judgment may extract annually from the Basin. This amount is known as the Party's Allowed Pumping Allocation, or "APA". The APA for each Party is listed in Table 1. Parties are required to report groundwater extractions to the Administrative Body each month (or quarterly for smaller producers). Appendix A lists, by Party, the volume of groundwater extracted each month from each active well in the Basin. Figure 1 describes the variation of groundwater production by three distinct production classifications: less than 500 acre-feet per year (afy), 500 to 2,000 afy, and more than 2,000 afy, during the 2019-2020 AY. In addition, Figure 2 illustrates the monthly water production (excluding non-consumptive use) for the 2019-2020 AY, which totaled 173,033.53 af, which is a 4% decrease from the previous AY.

To provide flexibility with regard to groundwater extractions, the Judgment contains provisions, such as the "One Year Carryover" (also known as "Normal Carryover"), which allows each Party to carry over into the succeeding administrative year a portion of its unused APA. Specifically, Parties are allowed to carryover unused rights up to the greater of:

- 60% of their APA plus or minus any leases with flex or 20 af, whichever is more, less the amount of water in a Party's storage account; or
- 20% of a Party's APA

This type of provision is necessary to meet unforeseen water demand. In addition, any unused Exchange Pool water, discussed in Section (H), is carried over into the following AY.

B. Storage Transactions

The Judgment allows Parties with water rights to store water in the Basin for later extraction. Pursuant to Section III.A.(2) of the Judgment, Parties have the ability to convert their normal carryover to storage upon payment of the Replenishment Assessment to WRD.

Table 2 describes storage accounting, including total carryover from the 2018-2019 AY, storage activity for the 2019-2020 AY (transfers, water put into storage, and water extracted from storage) and the total balance carryover into the ensuing AY. Table 3 lists quantities of water that were put into storage by each Party during the 2019-2020 AY. The total amount of water that was put into storage is 16,923.31 af, which is a 162% increase in comparison to the previous AY. In addition, a total of 3,665.77 af was extracted from storage by three different Parties, which are listed in Table 4. This is a 21% decrease in storage extractions when compared to the previous AY.

The Judgment also provides for the transfer of stored water between Parties. However, there were no transfers of stored water during the 2019-2020 AY (Table 5).

Table 6 provides a historical storage summary from the 2013-2014 AY to the 2019-2020 AY, for water put into storage, water extracted from storage, storage balance, and the available adjudicated storage capacity.

C. Regional Disadvantaged Communities Incentive Program

Section II.H. of the Judgment contains provisions for the development of a Regional Disadvantaged Communities Incentive Program (RDCIP) that allocates 23,000 af of storage space for the use or benefit of Disadvantaged Communities (DAC) within the Central Basin. A DAC is defined as any area that is served by a water purveyor and consisting of one or more contiguous census tracts, which based upon the most recent U.S. Census data, demonstrates a median household income which is less than eighty percent (80%) of the median household income for all Census Tracts within the State of California. This program was developed by the Water Rights Panel during the 2014-2015 AY and approved by the Court in June 2015.

There were no requests for participation in the RDCIP in the 2019-2020 AY.

D. Annual Extraction Limit and Over-extraction Rights

The total extraction right for each Party includes a Party's APA, leases, stored water, carryover water, or other contracted right as provided in the Judgment, but there may be a limit as to how much water the Party can extract.

No Party with normal carryover and/or storage rights is allowed to extract in excess of 140% of the sum of their APA +/- leased water, except upon prior approval by the Water Rights Panel. For example, if a Party has an APA of 1,000 af, 800 af of stored water rights, and leases an additional 200 af (for a total extraction right of 2,000 af), their maximum yearly extraction would be calculated as follows: (1,000 + 200) X 1.4 = 1,680 af. Conversely, if the Party leased out 200 af, their maximum yearly extraction would be (1,000 – 200) X 1.4 = 1,120 af. Any Party with carryover and/or storage that extracts more than 140% of their annual extraction limit without prior approval from the Water Rights Panel is in violation of the Judgment. Any extraction beyond a Party's total extraction right is deducted from that Party's subsequent AY APA.

Parties with neither normal carryover nor storage rights can over-extract 20% of their APA +/- leased water or 20 af, whichever is greater. Any extraction beyond a Party's total extraction right is deducted from the subsequent AY.

When a Party over-extracts, the over-extraction must be reconciled in the following AY unless Watermaster concludes that making up the over-extraction would create an unreasonable hardship

for the Party. In such cases, Watermaster may adjust the requirement. For example, Watermaster may prorate the reduction in the Party's APA over a period of up to five years.

During the 2019-2020 AY, seven Parties had a combined cumulative over-extraction of 24,619.04 af, the majority consisting of historic over-extraction by one party. Two Parties over-extracted within the provisions of the Judgment and five Parties were in violation of the Judgment. Table 7 lists over-extractions by all Parties.

E. Extractions by Non-Parties

In the 2019-2020 AY there were no extractions by non-parties reported (Table 8).

F. Extractions of Contaminated Groundwater

A Party who is a water rights holder may petition WRD for a Non-Consumptive Water Use Permit (NCWUP) as part of a project to remediate or ameliorate groundwater contamination. If the petition is granted, the Party may extract the groundwater without counting against its production rights, so long as conditions of the Judgment are met. A non-Party may extract contaminated groundwater for cleanup purposes by partnering with a Party who obtains the NCWUP and then assigns it to the non-Party.

Table 9 lists current NCWUPs issued by WRD and the amounts of groundwater extracted under those permits. In the 2019-2020 AY there were 92.19 af of NCWUP extractions via six permits, which is a 8% extraction decrease from the previous AY. Appendix A reports these extractions by well and month.

G. Allowed Pumping Allocation Transfers

Each year, APAs are transferred between Parties through leases (temporary transfers) and change of ownership (permanent transfers) transactions. Table 10 shows transfers of APAs through leases, specifically the parties involved, transaction type, amount, and recordation date. During the 2019-2020 AY there were 49 leases that totaled 31,003.51 af (43 leases with flex and 6 leases without flex). Leases with flex transfers both the pumping right and associated carryover rights to the lessee for the term stated within the lease agreement.

In transferring water rights, Parties must specify (1) the type of right (i.e., APA, normal carryover, or drought carryover), (2) the amount of right to the nearest 0.01 af, and (3) the period of the lease, if applicable. Moreover, all leases must be made on an administrative year basis and must be executed by the Parties and received by Watermaster no later than one month and 15 days following the end of the AY in which the lease is effective.

Table 11 shows permanent transfers of APA and carryover. There were two permanent transfers (sales) of APA that totaled 306.97 af and four carryover transfers (two Normal Carryover [NCO], one Drought Carryover-77[DCO77], and one Drought Carryover-91[DCO91]) totaling 212.35 af.

The transfer of water rights must be documented accordingly. For example, when land is sold on which a water right has been developed, the Watermaster must receive a copy of the transfer document if the water right is also transferred. The water right does not automatically pass to the new land owner unless the transfer document specifies that the water right was transferred with the land. For the proper accounting of the water right, the transfer document must specify (1) the type of right (i.e., APA, normal carryover, drought carryover, or stored water) and (2) the exact amount of water right (s) transferred. Watermaster provides a template for a Deed of Water Rights – Permanent Transfer transaction on its website to ensure the information provided on the transfer document is sufficient.

There were 149 Parties and 127 Rights Holders in the 2019-2020 AY, which is an increase of one Party and Rights Holder from the previous AY. The Court granted a stipulation in intervention to OU2 Environmental Remediation Trust on June 17, 2020 and they became a Party to the Judgment. Appendix B shows the succession of each Parties APA in the Basin and current Parties to the Judgment are listed in Appendix C.

H. Exchange Pool

The Judgment authorizes an Exchange Pool to provide additional water rights to Parties without sufficient water. If a Party's estimated water requirement for the following AY exceeds its total available water supply, that Party may purchase additional water from the Exchange Pool. Any Party wishing to purchase water from the Exchange Pool must file a request with the Watermaster before April 1. If no requests are received by April 1, the Exchange Pool will not operate in the following AY, and Watermaster will not process Exchange Pool forms. There were no requests for Exchange Pool water during the 2019-2020 AY (Table 12).

I. Status of Extraction Wells

In the Basin there were 351 wells that reported extraction during the 2019-2020 AY, which is 12 less wells than the previous AY. The locations of the wells and their relative amount pumped are shown in Figure 1. There were no new extraction wells reported completed (Table 13) and there was one extraction well reported destroyed (Table 14) in the 2019-2020 AY.

J. Meter Testing Program

Accurate measurement of groundwater extractions is essential for the successful management of groundwater in the Basin. Therefore, Watermaster requires an operative water meter to be installed at each extraction well. It is the responsibility of each Party to ensure that its meter and test facilities are installed properly and are maintained in good working condition. It is the goal of Watermaster to test the water meter at each active extraction well at least once every two years or when a Party requests a meter calibration. Watermaster tests meters by volumetric or pitot tube comparisons or other methods as appropriate. Watermaster notifies a Party that it must repair or replace its meter when the meter registers beyond five percent accuracy. If the registration accuracy of the meter deviates by as much as five percent or more, Watermaster may revise the well production amount.

The meter testing program is managed by the Water Rights Panel who has contracted with DWR. During the 2019-2020 AY, the DWR visited 49 Parties and performed 206 tests. Tests showed that four meters were inconclusive and 16 meters did not pass, which means the meters were either more than five percent fast or slow. Please contact the Water Rights Panel at www.cbwatermaster.org, for specific information regarding meter testing.

Water Supply

A. Precipitation

Precipitation over the Basin has relatively minimal direct influence on the replenishment of the groundwater in the Basin. This is a result of the low soil permeability that characterizes the primary water-producing aquifers throughout much of the Basin and largely impermeable surfaces (i.e., pavement and buildings) covering most of the forebay areas. However, during years of high rainfall, increased runoff from the areas upstream of the Basin can result in increased replenishment to the Basin and decreased groundwater demand by the water users, which in turn can result in lower rates of groundwater extraction from the Basin.

During the 2019-2020 AY, the following amounts of precipitation were measured at five precipitation stations located throughout the Central Basin region:

- 11.42 inches at Los Angeles-RD241 (formerly 96th and Central)
- 16.21 inches at Montana Ranch
- 14.85 inches at University of Southern California
- 11.96 inches at La Mirada Station
- 14.00 inches at Imperial Yard

Figure 3 shows the locations of these precipitation stations, and Figure 4 shows the monthly average of the rainfall measured at these stations. Based on the total rainfall measured at these stations, the mean precipitation over the Central Basin was 13.69 inches, which is 105% of the running 5-year mean of 13.10 inches. Although the region received average rainfall, the mean precipitation for 2019-2020 AY compared to the previous AY decreased by 5.32 inches.

B. Groundwater Recharge

Natural replenishment of the groundwater in the Basin occurs largely from surface flow and underflow through Whittier Narrows from the San Gabriel Valley. As mentioned above, minimal rainfall over the Basin would infiltrate into deeper aquifers of the Basin.

Intentional replenishment of groundwater in the Basin is accomplished by capturing and spreading river water at the Rio Hondo and the San Gabriel River Coastal Spreading Grounds in the Montebello Forebay (Figure 3). The sources of this replenishment water include local storm runoff, local dry weather urban runoff, imported water purchased from the Metropolitan Water District of Southern California (MWD), and recycled water purchased from Los Angeles County Sanitation Districts. There was a decrease of 57% in "local runoff" when compared to the previous AY, which is credited to the average rainfall received compared to the previous wet year. Table 15 shows the

sources and quantities of water spread to replenish the groundwater for the 2018-2019 AY and 2019-2020 AY. Specifically, WRD purchased zero af of imported water for spreading, which is 5,340 af less than the previous AY. In addition, WRD purchased 48,213 af of recycled water for spreading, which is 283 af or 0.59% more than the previous AY. The completion of the ARC facility has allowed WRD to replace imported water with advanced treated recycled water for groundwater recharge in the Montebello Forebay.

C. In-Lieu Recharge

During the 1965-1966 water year, WRD, in cooperation with the MWD, began an in-lieu replenishment program, where discounted imported water was offered seasonally due to availability. WRD has contracted with producers having access to supplemental imported water that could be used in lieu of extracting groundwater from the Basin to reduce overall pumping impacts. Due to water shortages and other reasons, MWD discontinued their discounted seasonal imported water in 2011 and as a result, WRD had suspended its in-lieu program except under special circumstances. During the 2019-2020 AY WRD offered the program to the City of Long Beach to promote groundwater replenishment. The City of Long Beach retired 5,000 af of pumping rights for the 2019-2020 AY and took 5,000 af of imported water instead under this program (Table 16). The use of supplemental water in-lieu of pumping groundwater does not change a party's water rights, but it counts as water pumped under the Judgment.

D. Imported Water

Water is imported from northern California via the State Water Project and the Colorado River, and is made available to water users by MWD through its member agencies: Central Basin Municipal Water District (CBMWD) and the Cities of Compton, Long Beach, and Los Angeles. The City of Los Angeles also imports water from the Owens River-Mono Basin. Furthermore, the California Domestic Water Company, the San Gabriel Valley Water Company, Suburban Water Systems, and the City of Whittier import groundwater from the San Gabriel Valley groundwater basin, which lies to the northeast and upstream of the Basin. In the 2019-2020 AY, a total of 118,168 af of water was imported, for potable use, to the area overlying the Central Basin. Table 17 lists imported water use by source of water, Party, and quantity, not including WRD replenishment water.

E. Recycled Water

Table 18 shows that 10,632 af of recycled water for direct use in the area overlying the Central Basin during the 2019-2020 AY, not including WRD replensihment water. This amount is 266 af or 3% more than was used in the 2018-2019 AY.

F. Total Water Use

Figure 5 shows the total water use in the Basin during the 2019-2020 AY, including extracted groundwater, imported water, and recycled water for direct use.

G. Exported Water

California-American Water Company exported 1,122 acre-feet of groundwater from the Basin to its service area that overlies a portion of the West Coast Basin.

H. Increased Extraction in the Basin for Certain Purveyors Serving Overlying Communities

Per Section IV.K of the Judgment, "certain purveyors" are Parties to both the Central Basin Third Amended Judgment and the West Coast Basin Judgment and serve communities overlying both the Central and West Coast Basins. These purveyors, include the City of Los Angeles, Golden State Water Company, and California Water Service Company and are allowed to increase their extraction in the Central Basin beyond their APA. However, the increased extraction, which is limited to 5,000 af per AY, is counted against their Adjudicated Right (AR) in the West Coast Basin.

In the 2019-2020 AY Golden State Water Company increased their extraction in the Central Basin by 3,000 af by deducting this amount from their unused West Coast Basin Rights, which is reflected in Table 1 (see footnote 5).

I. Alamitos Gap Barrier Project

Seawater intrusion in the Alamitos Gap near the mouth of the San Gabriel River poses a threat to the groundwater in the Basin. The Alamitos Gap Seawater Barrier Project is designed to prevent seawater intrusion into the fresh water aquifers of the Basin. The location of the barrier is shown on Figure 3, and is situated both in the Basin and in Orange County.

The Los Angeles County Department of Public Works operates the barrier project, which is comprised of 60 injection wells that create a groundwater pressure ridge to halt seawater intrusion. The project includes 220 observation wells that are used to monitor groundwater levels and quality in the area. Table 19 shows the quantities of imported and recycled water injected into the Los Angeles County side of the barrier wells in the 2018-2019 and 2019-2020 AY. There was a decrease of 307.2 af or 10% in imported water use and an increase of 448.1 af or 616% in recycled water use for injection. The seawater intrusion problem is contained by the Barrier Project.

J. Groundwater Levels

Figure 3 shows the locations of selected wells that are used to monitor groundwater level elevations in the Basin. Figure 6 shows the water level elevations in key wells located in the Montebello Forebay, and Figure 7 shows the water level elevations in wells perforated in Principal Aquifers of the Basin. WRD's annual Engineering Survey and Report and Regional Groundwater Monitoring Report provides more information on groundwater levels. These reports are available on WRD's website.

Watermaster Costs and Budget

To fund Watermaster activities, both the Administrative Body and the Water Rights Panel have annual assessments that are levied on water rights holders under the terms of the Judgment. The Administrative Body assessment is only charged to those rights holders that have extracted from the Central Basin within the current or past two administrative years (active groundwater producers). The assessment is a flat fee of twenty dollars ($20) for each active rights holder plus a proportion of the remaining Administrative Body budget based on the APA of the active rights holder. The separate Water Rights Panel assessment is charged to all water rights holders, not just active rights holders, based on their APA.

For 2019-2020 AY, the Watermaster budget for the Administrative Body was $198,872.57, which is unchanged from the previous AY. The Watermaster budget for the Water Rights Panel was $173,893.61 which is a $10,868 decrease from the previous year. The decrease is attributed to a decrease in the Water Rights Panel annual assessment from $0.85 to $0.80 per af. The overall Watermaster budget total was $372,766.18. Table 20 lists the budget summary of the 2019-2020 AY.

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Table 1 - Water Rights Accounting (acre-feet)

Party	APA 2019-2020 [1]	Net Carryover [2] from 2018-2019	Leases [3] with Flex	Leases [3] w/o Flex	Storage [4]	Increased Extractions [5]	Total Rights [6]	Amount Pumped	Balance [7]	Allowable carryover into 2020-2021 DCO 77 [8]	DCO 91 [9]	Normal	Total
ABC Unified School District	298.00	54.01	-250.00	0.00	0.00		102.01	14.97	87.04	0.00	25.21	28.80	54.01
American Textile Maintenance Company	65.00	74.00	0.00	0.00	0.00		139.00	0.00	139.00	0.00	35.00	39.00	74.00
Angeles Abbey Memorial Park, Inc.	4.00	20.00	0.00	0.00	0.00		24.00	0.00	24.00	0.00	0.00	20.00	20.00
Arco Metals Co./ American Brass	0.00	34.46	0.00	0.00	0.00		34.46	0.00	34.46	24.46	0.00	10.00	34.46
Artesia Cemetery District	12.00	20.00	-12.00	0.00	0.00		20.00	0.00	20.00	0.00	0.00	20.00	20.00
Artesia, City of [12]	24.00	-17.24	0.00	0.00	0.00		6.76	22.70	-15.94	0.00	0.00	-15.94	-15.94
Atlas Iron & Metal Company [12]	0.00	0.44	0.00	0.00	0.00		0.44	1.64	-1.20	0.00	0.00	-1.20	-1.20
Automobile Club of Southern California	6.00	20.00	0.00	0.00	0.00		26.00	0.00	26.00	0.00	0.00	20.00	20.00
Baker Commodities Inc.	60.00	20.00	-60.00	0.00	0.00		20.00	0.00	20.00	0.00	0.00	20.00	20.00
Bell Gardens, City of	1,914.00	285.81	-750.00	0.00	0.00		1,449.81	623.49	826.32	0.00	149.88	676.44	826.32
Bellflower Home Garden Water Company	306.00	156.20	-306.00	0.00	0.00		156.20	0.00	156.20	0.00	0.00	20.00	20.00
Bellflower Unified School District	89.00	53.40	0.00	0.00	0.00		142.40	0.00	142.40	0.00	0.00	53.40	53.40
Bellflower, City of	1,380.00	833.04	-680.00	0.00	0.00		1,533.04	645.54	887.50	0.00	483.00	404.50	887.50
Bellflower-Somerset Mutual Water Company	4,412.88	2,055.73	680.00	0.00	1,000.00		8,148.61	5,054.84	3,093.77	0.00	0.00	2,055.73	2,055.73
Boy Scouts of America [12]	1.00	-11.80	0.00	0.00	0.00		-10.80	0.00	-10.80	0.00	0.00	-10.80	-10.80
Buell, Mary Dolores	1.00	0.00	-1.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
California American Water Company	2,175.00	903.73	0.00	0.00	0.00		3,078.73	1,122.01	1,956.72	0.00	35.00	1,305.00	1,340.00
California Domestic Water Company	87.00	52.20	-80.00	0.00	0.00		59.20	0.00	59.20	0.00	0.00	20.00	20.00
California Water Service Company (Dominguez)	6,480.00	2,688.00	-3,250.00	0.00	0.00		5,918.00	1,310.38	4,607.62	0.00	0.00	1,938.00	1,938.00
California Water Service Company (East LA)	11,774.00	8,662.16	-3,250.00	0.00	0.00		17,186.16	9,463.64	7,722.52	2,696.92	340.84	4,684.76	7,722.52
California, State of (Caltrans) [12]	50.00	-24,505.48	0.00	0.00	0.00		-24,455.48	69.40	-24,524.88	0.00	0.00	-24,524.88	-24,524.88
Central Basin Municipal Water District	4.65	7.90	0.00	0.00	0.00		12.55	0.00	12.55	0.00	0.00	12.55	12.55
Cerritos Community College District	147.00	88.20	0.00	0.00	0.00		235.20	0.00	235.20	0.00	0.00	88.20	88.20
Cerritos, City of	4,680.03	2,130.58	770.75	3,000.00	2,130.00		12,711.36	8,629.05	4,082.31	30.44	1,007.78	914.09	1,952.31
Chang, I-Hsin and Associates	1.00	23.84	0.00	0.00	0.00		24.84	0.00	24.84	3.84	0.00	20.00	23.84
Coast Packing Company	530.00	56.94	-425.00	0.00	0.00		161.94	114.21	47.73	0.00	34.21	13.52	47.73
Commerce, City of	5,081.00	3,026.95	-3,000.00	0.00	0.00		5,107.95	1,300.69	3,807.26	0.00	1,778.35	1,248.60	3,026.95
Compton Unified School District	38.00	57.80	0.00	0.00	0.00		95.80	0.00	95.80	0.00	35.00	22.80	57.80
Compton, City of	5,780.00	3,704.44	0.00	0.00	0.00		9,484.44	7,229.92	2,254.52	0.00	298.32	1,956.20	2,254.52
Corning Trust	3.75	3.75	-3.75	0.00	0.00		3.75	0.00	3.75	0.00	0.00	3.75	3.75
Crandell, F.J.	1.00	21.75	0.00	0.00	0.00		22.75	0.00	22.75	0.75	1.00	20.00	21.75
Darling-Delaware Company, Inc	117.00	111.15	0.00	0.00	0.00		228.15	0.00	228.15	0.00	40.95	70.20	111.15
Dolan, J.E. P.A. & T.P.	2.00	2.00	0.00	0.00	0.00		4.00	0.00	4.00	0.00	0.00	4.00	4.00
Downey, City of [10]	16,553.62	5,834.98	0.00	0.00	2,000.00		24,388.60	13,802.08	10,586.52	0.00	910.06	7,676.46	8,586.52
EcoGas, Inc.	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
El Rancho Unified School District	55.00	63.49	0.00	0.00	0.00		118.49	0.00	118.49	0.00	30.49	33.00	63.49
Emoto, John H	2.00	22.00	0.00	0.00	0.00		24.00	0.00	24.00	0.00	2.00	20.00	22.00
Equilon Enterprises, LLC	6.00	26.00	0.00	0.00	0.00		32.00	0.00	32.00	0.00	6.00	20.00	26.00
Exide Technologies	62.00	72.20	0.00	0.00	0.00		134.20	0.00	134.20	0.00	35.00	37.20	72.20
Flesch, Elizabeth Et Al	14.00	34.00	0.00	0.00	0.00		48.00	0.00	48.00	0.00	14.00	20.00	34.00
Footbridge 1 Trust	3.75	20.00	0.00	0.00	0.00		23.75	0.00	23.75	0.00	0.00	20.00	20.00
Ford Motor Company	4.50	24.50	0.00	0.00	0.00		29.00	0.00	29.00	0.00	4.50	20.00	24.50

Table 1 - Water Rights Accounting Continued

Party	APA 2019-2020 [1]	Net Carryover [2] from 2018-2019	Leases [3] with Flex	Leases [3] w/o Flex	Storage [4]	Increased Extractions [5]	Total Rights [6]	Amount Pumped	Balance [7]	Allowable carryover into 2020-2021 DCO 77 [8]	DCO 91 [9]	Normal	Total
Furr, Nancy [12]	0.00	-0.08	0.00	0.00	0.00		-0.08	0.08	-0.16	0.00	0.00	-0.16	-0.16
Golden State Water Company	16,439.20	11,260.73	1,950.00	0.00	0.00	3,000.00	32,649.93	20,063.62	12,586.31	47.21	0.00	12,539.10	12,586.31
Gordon, Robert E.	4.00	24.80	0.00	0.00	0.00		28.80	0.00	28.80	0.80	4.00	20.00	24.80
Harada Brothers	6.00	26.00	0.00	0.00	0.00		32.00	0.00	32.00	0.00	6.00	20.00	26.00
Hathaway, Loline	4.08	16.32	0.00	0.00	0.00		20.40	0.00	20.40	0.00	0.00	20.00	20.00
Hathaway, Merrie F	1.86	20.00	0.00	0.00	0.00		21.86	0.00	21.86	0.00	0.00	20.00	20.00
Hathaway, Richard F, Jr.	4.07	16.28	-4.07	0.00	0.00		16.28	0.00	16.28	0.00	0.00	16.28	16.28
Hathaway, William A	4.07	16.28	0.00	0.00	0.00		20.35	0.00	20.35	0.00	0.00	20.00	20.00
Hoke, Barbara	1.50	0.00	-1.50	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huntington Park, City of	3,853.00	2,677.07	-1,200.00	0.00	0.00		5,330.07	2,798.28	2,531.79	0.00	681.83	1,591.80	2,273.63
Inglewood Park Cemetery	317.00	55.00	-317.00	0.00	0.00		55.00	0.00	55.00	0.00	35.00	20.00	55.00
LA Brickyard, LLC	9.00	29.75	0.00	0.00	0.00		38.75	0.00	38.75	0.75	9.00	20.00	29.75
La Habra Heights County Water District	2,646.00	1,141.39	4.07	-125.00	0.00		3,666.46	2,778.52	887.94	0.00	0.00	887.94	887.94
Lakewood, City of Water Department [10]	9,432.00	1,500.00	0.00	-2,053.41	4,528.89		13,407.48	6,724.58	6,682.90	0.00	1,500.00	654.01	2,154.01
Liberty Utilities Corporation	1,159.30	5,841.18	7,771.00	0.00	0.00		14,771.48	7,542.63	7,228.85	0.00	0.00	5,358.18	5,358.18
Lincoln Memorial Park Inc	34.00	80.64	0.00	0.00	0.00		114.64	14.13	100.51	46.66	13.58	20.40	80.64
Little Lake Cemetery District	14.00	33.22	0.00	0.00	0.00		47.22	0.02	47.20	0.00	13.22	20.00	33.22
Long Beach, City of [10, 11]	32,692.00	4.29	0.00	3,053.41	19,611.66		55,361.36	24,207.00	26,154.36	4.29	0.00	6,538.40	6,542.69
Los Angeles County Rancho Los Amigos	490.00	438.36	0.00	0.00	0.00		928.36	218.59	709.77	0.00	144.36	294.00	438.36
Los Angeles, City of Dept of Water and Power [10]	17,236.00	5,250.20	0.00	0.00	22,943.00		45,429.20	9.76	45,419.44	0.00	5,250.00	3,447.20	8,697.20
Lunday-Thagard Oil Company	212.00	9.23	-130.00	0.00	0.00		91.23	82.92	8.31	0.00	8.31	0.00	8.31
Lynwood Park Mutual Water Company	222.00	38.52	0.00	0.00	0.00		260.52	114.45	146.07	0.00	0.00	133.20	133.20
Lussman, Paul H. Jr., Et Al	7.00	26.76	0.00	0.00	0.00		33.76	0.00	33.76	0.00	6.76	20.00	26.76
Lynwood, City of	5,337.00	2,961.82	0.00	0.00	0.00		8,298.82	5,211.66	3,087.16	0.00	31.61	3,055.55	3,087.16
Margulies, Kathryn and Schwartz, Jon	3.00	0.00	0.00	0.00	0.00		3.00	0.00	3.00	0.00	0.00	3.00	3.00
Martin, Mary	28.00	0.00	-28.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maywood Mutual Water Company No. 1	741.00	454.26	0.00	0.00	0.00		1,195.26	659.51	535.75	0.00	9.66	444.60	454.26
Maywood Mutual Water Company No. 2	912.00	483.41	0.00	0.00	0.00		1,395.41	829.56	565.85	19.35	0.00	546.50	565.85
Maywood Mutual Water Company No. 3	1,407.00	483.62	0.00	0.00	100.00		1,990.62	1,317.31	673.31	0.00	72.64	500.67	573.31
Metro-H2O	4.07	20.00	0.00	0.00	0.00		24.07	0.00	24.07	0.00	0.00	20.00	20.00
Mitsuuchi, Mary F Trust	11.00	20.00	0.00	0.00	0.00		31.00	0.00	31.00	0.00	0.00	20.00	20.00
Montebello Land and Water Company	1,829.00	1,139.35	1,077.50	-400.00	0.00		3,645.85	2,856.57	789.28	39.66	207.62	542.00	789.28
Montebello, City of	386.50	231.90	-386.50	0.00	0.00		231.90	142.91	88.99	0.00	0.00	20.00	20.00
Nancy Dee Keane Living Trust	4.00	4.00	-4.00	0.00	0.00		4.00	0.00	4.00	0.00	0.00	4.00	4.00
New England Mutual Life Insurance Company	2.00	22.00	0.00	0.00	0.00		24.00	0.00	24.00	0.00	2.00	20.00	22.00
Newark Group, Inc., The [12]	157.00	-54.81	0.00	0.00	0.00		102.19	136.89	-34.70	0.00	0.00	-34.70	-34.70
Northrop Grumman/Omega Chemical	4.50	38.00	0.00	0.00	0.00		42.50	0.00	42.50	0.00	20.00	20.00	40.00
Norwalk, City of	2,273.00	1,525.66	0.00	0.00	0.00		3,798.66	706.93	3,091.73	0.00	161.86	1,363.80	1,525.66
Norwalk-La Mirada Unified School District	378.00	324.10	0.00	0.00	0.00		702.10	0.00	702.10	0.00	97.30	226.80	324.10
O N K Farms	8.00	28.00	0.00	0.00	0.00		36.00	0.00	36.00	0.00	8.00	20.00	28.00
Oltmans Construction Company	3.00	23.00	0.00	0.00	0.00		26.00	0.00	26.00	0.00	3.00	20.00	23.00
Orchard Dale Water District	1,254.00	740.03	0.00	925.00	0.00		2,919.03	1,899.90	1,019.13	2.00	67.52	752.40	821.92

Table 1 - Water Rights Accounting Continued

Party	APA 2019-2020 [1]	Net Carryover [2] from 2018-2019	Leases [3] with Flex	Leases [3] w/o Flex	Storage [4]	Increased Extractions [5]	Total Rights [6]	Amount Pumped	Balance [7]	Allowable carryover into 2020-2021 DCO 77 [8]	DCO 91 [9]	Normal	Total
OU2 Environmental Remediation Trust [13]	7.97	32.95	0.00	0.00	0.00		40.92	0.00	40.92	1.38	11.57	20.00	32.95
PABCO Building Products, LLC	500.00	0.95	-500.00	0.00	0.00		0.95	0.00	0.95	0.00	0.00	0.95	0.95
Paradise Memorial Park	16.00	20.95	0.00	0.00	0.00		36.95	0.00	36.95	0.00	0.95	20.00	20.95
Paramount Unified School District	46.00	27.60	0.00	0.00	0.00		73.60	10.43	63.17	0.00	0.00	27.60	27.60
Paramount, City of	5,883.00	2,917.65	0.00	0.00	0.00		8,800.65	5,364.60	3,436.05	0.00	1,290.58	2,145.47	3,436.05
Patrician Associates Inc/Majestic Realty Company	12.00	32.00	0.00	0.00	0.00		44.00	0.00	44.00	0.00	12.00	20.00	32.00
Petersburg, L.P.	1.00	5.00	0.00	0.00	0.00		6.00	0.00	6.00	0.00	0.00	6.00	6.00
Pico Boys Baseball, Inc.	13.00	13.00	0.00	0.00	0.00		26.00	0.00	26.00	0.00	0.00	20.00	20.00
Pico Rivera, City of	5,579.00	2,562.61	-1,800.00	0.00	0.00		6,341.61	4,325.01	2,016.60	0.00	661.05	1,355.55	2,016.60
Pico Water District	3,624.00	1,928.77	0.00	-800.00	0.00		4,752.77	2,703.88	2,048.89	0.00	284.26	1,764.63	2,048.89
Puente Basin Water Agency	965.00	706.39	0.00	0.00	0.00		1,671.39	0.00	1,671.39	0.00	127.75	579.00	706.75
Rippy, Francine	4.07	16.28	0.00	0.00	0.00		20.35	0.00	20.35	0.00	0.00	20.00	20.00
Rockview Dairies, Inc. [12]	101.00	22.35	0.00	0.00	0.00		123.35	161.30	-37.95	0.00	0.00	-37.95	-37.95
Roman Catholic Archbishop of Los Angeles	347.00	290.20	0.00	0.00	0.00		637.20	249.48	387.72	0.00	90.61	208.20	298.81
Rosales, Elvira C	3.00	25.00	0.00	0.00	0.00		28.00	0.00	28.00	2.00	3.00	20.00	25.00
Rosing, Nancy	1.50	0.00	-1.50	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rowland Water District	1.00	3.17	0.00	0.00	0.00		4.17	0.00	4.17	0.00	0.00	4.17	4.17
San Gabriel Valley Water Company [10]	2,565.35	0.00	-400.00	400.00	2,565.35		5,130.70	701.05	4,429.65	0.00	0.00	433.07	433.07
Santa Fe Springs, City of	4,035.78	2,804.49	0.00	0.00	0.00		6,840.27	2,819.15	4,021.12	166.88	1,116.14	2,421.47	3,704.49
Sativa L A County Water District	474.00	217.02	-390.00	0.00	0.00		301.02	91.44	209.58	0.00	162.59	46.99	209.58
Scantlebury, Robert P.	4.00	41.49	0.00	0.00	0.00		45.49	0.59	44.90	18.00	3.49	20.00	41.49
September Properties LLC	22.00	-0.29	-20.00	0.00	0.00		1.71	0.94	0.77	0.00	0.00	0.77	0.77
Signal Hill, City of	2,022.00	1,920.90	0.00	0.00	0.00		3,942.90	1,907.87	2,035.03	0.00	707.70	1,213.20	1,920.90
Simmons Survivors Trust	33.00	20.00	-33.00	0.00	0.00		20.00	0.00	20.00	0.00	0.00	20.00	20.00
South Gate, City of	11,183.00	3,151.30	0.00	-3,000.00	500.00		11,834.30	8,135.00	3,699.30	0.00	447.21	2,752.09	3,199.30
South Montebello Irrigation District	1,268.00	20.79	500.00	0.00	0.00		1,788.79	1,779.25	9.54	0.00	0.00	9.54	9.54
Southern California Edison Company	670.00	636.50	0.00	0.00	0.00		1,306.50	9.96	1,296.54	234.50	0.00	402.00	636.50
St John Bosco School	42.00	23.15	0.00	0.00	0.00		65.15	27.54	37.61	0.00	12.67	24.94	37.61
Statewide Stations, Inc.	1.00	35.00	0.00	0.00	0.00		36.00	0.00	36.00	14.00	1.00	20.00	35.00
Suburban Water Systems	3,721.00	36.28	-1,642.60	0.00	0.00		2,114.68	1,902.02	212.66	0.00	35.00	177.66	212.66
Taurek, Mary	0.00	1.00	0.00	0.00	0.00		1.00	0.00	1.00	0.00	1.00	0.00	1.00
Tesoro Refining & Marketing Company LLC	54.00	67.40	0.00	0.00	0.00		121.40	0.00	121.40	0.00	35.00	32.40	67.40
Tract 180 Mutual Water Company	2,137.00	339.55	-450.00	0.00	0.00		2,026.55	1,316.43	710.12	0.00	63.96	646.16	710.12
Tract 349 Mutual Water Company	423.00	132.43	280.00	0.00	0.00		835.43	662.57	172.86	0.00	5.28	167.58	172.86
Tucker, William M. & or Robertson, Bobby Ray Jr.	1.00	0.75	0.00	0.00	0.00		1.75	0.40	1.35	0.00	0.00	1.35	1.35
Vangrootheest, Ernest A	10.00	10.00	0.00	0.00	0.00		20.00	0.00	20.00	0.00	0.00	20.00	20.00
Vernon, City of	7,539.00	4,136.86	0.00	-1,000.00	0.00		10,675.86	6,082.55	4,593.31	204.88	316.29	4,072.14	4,593.31
Virginia Country Club [12]	274.00	8.01	0.00	0.00	0.00		282.01	286.30	-4.29	0.00	0.00	-4.29	-4.29
Walnut Park Mutual Water Company	1,009.00	206.44	250.00	0.00	1,077.91		2,543.35	1,127.50	1,415.85	0.00	204.64	133.30	337.94
WEMS, Inc., A California Corp.	8.00	28.00	0.00	0.00	0.00		36.00	0.00	36.00	0.00	8.00	20.00	28.00
Whittier Union High School District	100.00	34.12	-50.00	0.00	50.00		134.12	30.77	103.35	0.00	24.12	10.00	34.12
Whittier, City of	895.00	2,668.72	6,142.60	0.00	0.00		9,706.32	5,616.75	4,089.57	0.00	0.00	4,089.57	4,089.57

Table 1 - Water Rights Accounting Continued

Party	APA 2019-2020 [1]	Net Carryover [2] from 2018-2019	Leases [3] with Flex	Leases [3] w/o Flex	Storage [4]	Increased Extractions [5]	Total Rights [6]	Amount Pumped	Balance [7]	Allowable carryover into 2020-2021 DCO 77 [8]	DCO 91 [9]	Normal	Total
Wolfsberger, Helen/Joseph, Chris	2.00	22.00	0.00	0.00	0.00		24.00	0.00	24.00	0.00	2.00	20.00	22.00
Yamamoto, George and Alice Acct.	14.00	33.82	0.00	0.00	0.00		47.82	0.37	47.45	0.00	13.82	20.00	33.82
TOTAL:	**217,367.00**	**68,882.01**	**0.00**	**0.00**	**56,506.81**	**3,000.00**	**345,755.82**	**173,033.53**	**167,722.29**	**3,558.77**	**19,261.54**	**61,131.91**	**83,952.22**

[1] APA - Allowed Pumping Allocation.

[2] Net Carryover is the sum of all carryover from the previous year less the amount of carryover conversion for the current year.

[3] See Table 10 for information concerning leases. Lease with flex includes carryover provisions.

[4] Storage includes Carryover Conversion for Administrative Year 2019-20.

[5] Increased Extraction: Section IV(K) of the Central Basin Judgment permits increased extraction rights through use of up to 5,000 AF of certain parties' West Basin Rights in the Central Basin

The aforementioned parties include City of Los Angeles, Golden State Water Company, and California Water Service Company.

[6] Total Rights = Allowed Pumping Allocation + Net Carryover + Leases + Storage + Increased Extractions, but does not necessarily equal Annual Extraction Limit (see page 5, section D).

[7] Balance = Total Rights - Amount Pumped.

[8] DCO 77 - drought carryover created in 1977.

[9] DCO 91 - drought carryover created in 1991.

[10] 2018-19 net carryover reduced by carryover conversion into storage for 2019-2020

Downey, City of: 2,000.00 AF; Lakewood, City of: 4,528.89 AF; Long Beach, City of: 6,434.35 AF; LADWP: 3,447.00 AF;

San Gabriel Valley Water Company: 513.07 AF

[11] Balance accounts for 5,000 a.f. of deducted In-Lieu Production.

[12] Negative Normal Carryover will be deducted from the subsequent year's APA.

[13] The court granted a stipulation in intervention to OU2 Environmental Remediation Trust on June 17, 2020 and they became a party to the Judgment. See Table 11 for details.

Table 2 - Storage Accounting

Party	Carryover from 2018-2019		2019-2020 Storage Activity								
					Water put into Storage		Water Extracted		Balance		
	ISA[1]	CSP[2]	ISA	CSP	ISA	CSP	ISA	CSP	ISA	CSP	Total
Bellflower-Somerset Mutual Water Co.	1,000.00	-	-	-	-	-	-	-	1,000.00	0.00	1,000.00
Cerritos, City of	2,340.02	1,159.98	-	-	-	-	210.02	1,159.98	2,130.00	0.00	2,130.00
Downey, City of	2,000.00	-	-	-	2,000.00	-	2,000.00	-	2,000.00	0.00	2,000.00
Lakewood, City of	295.77	-	-	-	4,528.89	-	295.77	-	4,528.89	0.00	4,528.89
Long Beach, City of	13,177.31	-	-	-	3,168.69	3,265.66	-	-	16,346.00	3,265.66	19,611.66
Los Angeles, City of	8,618.00	10,878.00	-	-	-	3,447.00	-	-	8,618.00	14,325.00	22,943.00
Maywood Mutual Water Company No. 3	100.00	-	-	-	-	-	-	-	100.00	0.00	100.00
San Gabriel Valley Water Company	1,282.68	769.60	-	-	-	513.07	-	-	1,282.68	1,282.67	2,565.35
South Gate, City of	500.00	-	-	-	-	-	-	-	500.00	0.00	500.00
Walnut Park Mutual Water Company	504.50	573.41	-	-	-	-	-	-	504.50	573.41	1,077.91
Whittier Union High School District	50.00	-	-	-	-	-	-	-	50.00	0.00	50.00
Central Basin Total	**29,868.28**	**13,380.99**	**0.00**	**0.00**	**9,697.58**	**7,225.73**	**2,505.79**	**1,159.98**	**37,060.07**	**19,446.74**	**56,506.81**

[1] Individual Storage Account.

[2] Community Storage Pool.

Table 3. Water Put Into Storage

Party	Quantity (acre-feet)	Storage Account[1]	Storage Method[2]	Date
Downey, City of	2,000.00	ISA	CC	7/20/20
Lakewood, City of	4,528.89	ISA	CC	8/11/20
Long Beach, City of	3,168.69	ISA	CC	8/11/20
Long Beach, City of	3,265.66	CSP	CC	8/11/20
Los Angeles, City of	3,447.00	CSP	CC	7/2/20
San Gabriel Valley Water Company	513.07	CSP	CC	8/11/20
Total:	**16,923.31**			

Table 4. Water Extracted From Storage

	Quantity (acre-feet)	Storage Account
Cerritos, City of	460.00	CSP
Cerritos, City of	460.00	CSP
Cerritos, City of	450.00	CSP/ISA
Downey, City of	1,000.00	ISA
Downey, City of	1,000.00	ISA
Lakewood, City of	295.77	ISA
Total:	**3,665.77**	

Table 5. Storage Transfers

Party	Quantity	Storage Account	Date
No stored water was transferred in 2019 - 2020			
Total:	**0.00**		

[1] CSP = Community Storage Pool. ISA = Individual Storage Account.
[2] CC = Carryover Conversion.

Table 6. Historical Storage Summary

Year	Water Put Into Storage			Water Extracted From Storage			Storage Balance			Available Adjudicated Storage Capacity		
	ISA	CSP	Total	ISA	CSP	Total	ISA	CSP	Total	ISA	CSP	Total
2013-14	19,796.80	0.00	19,796.80	0.00	0.00	0.00	19,796.80	0.00	19,796.80	88,953.20	111,250.00	200,203.20
2014-15	3,500.00	0.00	3,500.00	899.49	0.00	899.49	22,397.31	0.00	22,397.31	86,352.69	111,250.00	197,602.69
2015-16	5,662.47	1,047.00	6,709.47	0.00	0.00	0.00	28,059.78	1,047.00	29,106.78	80,690.22	110,203.00	190,893.22
2016-17	2,243.29	3,614.98	5,858.27	1,815.24	0.00	1,1815.24	28,487.83	4,661.98	33,149.81	80,262.17	106,588.02	186,850.19
2017-18	5,091.15	4,557.63	9,648.78	1,350.00	0.00	1,350.00	32,228.98	9,219.61	41,448.59	76,521.02	102,030.39	178,551.41
2018-19	2,295.77	4,161.38	6,457.15	4,656.47	0.00	4,656.47	29,868.28	13,380.99	43,249.27	78,881.72	97,869.01	176,750.73
2019-20	9,697.58	7,225.73	16,923.31	2,505.79	1,159.98	3,665.77	37,060.67	19,446.74	56,506.81	71,689.93	91,803.26	163,493.19

Table 7. Over-extractions

Party	APA	Carryover and/or Stored Water	Total Rights	Amount Pumped	Overextraction [1]	Allowable Overextraction [2]	Judgment Violation?
Artesia, City of	24.00	No	6.76	22.70	15.94	20.00	No
Atlas Iron ans Metal Co.	0.00	No	0.44	1.64	1.20	0.00	Yes
California, State of [3]	50.00	No	-24,455.48	69.40	24,524.88	20.00	Yes
Furr, Nancy	0.00	No	0.00	0.08	0.08	0.00	Yes
Newark Group, Inc.	157.00	No	102.19	136.89	34.70	31.40	Yes
Rockview Dairies, Inc.	101.00	Yes	123.35	161.30	37.95	40.40	Yes
Virginia Country Club	274.00	Yes	282.01	286.30	4.29	109.60	No
Total					**24,619.04**		

[1] Overextraction = Amount Pumped - Allowable Extraction; any over-extraction will be deducted from the following year.

[2] If the Party has carryover or stored water, they are allowed to over-extract up to 140% of APA +/- leases and not be in violation of the Judgment; if they do not have carryover and/or stored water, they are allowed to over-extract 20% or 20 af of APA +/- leases, whichever is greater.

[3] Includes over-extraction from previous AYs by Caltrans for dewatering under the 105 Freeway.

Table 8. Extractions by Non-Parties

Non-party	Amount Pumped (acre-feet)
There were no extractions by non-parties in 2019-2020	
	0.00

Table 9 - Non-Consumptive Water Use Permits

Party	WRD Res. No.	Description	2019-2020 Extraction[1]
Ashland Chemical Company (on behalf of the City of Sante Fe Springs)	13-962	Allowed to extract 15.00 acre-feet of water per year during the period beginning July 1, 2016 and ending on June 30, 2021.	**-0.79**
Boeing Company (on behalf of the City of Long Beach)	17-1065	Allowed to extract 153.00 acre-feet of water per year for the period from November 16, 2017 through November 30, 2022.	**78.47**
Defense Logistic Agency Energy (on behalf of the City of Norwalk)	14-978	Allowed to extract 28.00 acre-feet of water per year for the period from February 3, 2019 through February 2, 2024.	**2.51**
Demenno/Kerdoon (on behalf of the City of Compton)	13-952	Allowed to extract 25.00 acre-feet of water per year for the period of July 17, 2013 through July 16, 2018.	**3.70**
Omega Chemical (on behalf of Northrop Grumman Corporation)	17-1063	Allowed to extract 43.00 acre-feet of water per year for the period from October 1, 2017 through September 30, 2022.	**4.58**
SFPP L.P. (on behalf of the City of Norwalk)	14-977	Allowed to extract 80.00 acre-feet of water per year for the period from February 3, 2019 through February 2, 2024.	**3.72**
Total			**92.19**

[1] Negative numbers indicate net re-injection of treated water.

Table 10 - Leases (acre-feet)

Party	Transaction Type	Amount	Recordation Date		Party	Net Amount
ABC Unified School District	Lease with flex	-250.00	11/12/19	TO	Cerritos, City of	-250.00
Artesia Cemetery District	Lease with flex	-12.00	6/14/19	TO	Cerritos, City of	-12.00
Baker Commodities Inc.	Lease with flex	-60.00	12/10/19	TO	Tract 349 Mutual Water Company	-60.00
Bell Gardens, City of	Lease with flex	-750.00	7/1/18	TO	Golden State Water Company	-750.00
Bellflower Home Garden Water Company	Lease with flex	-306.00	3/5/19	TO	EcoGas, Inc.	-306.00
Bellflower, City of	Lease with flex	-680.00	8/22/19	TO	Bellflower-Somerset Mutual Water Company	-680.00
Bellflower-Somerset Mutual Water Company	Lease with flex	680.00	8/22/19	FROM	Bellflower, City of	680.00
Buell, Mary Dolores	Lease with flex	-1.00	6/14/19	TO	Cerritos, City of	-1.00
California Domestic Water Company	Lease with flex	-80.00	11/25/19	TO	Montebello Land and Water Company	-80.00
California Water Service Company (Dominguez)	Lease with flex	-750.00	12/17/18	TO	Liberty Utilities Corporation	-3,250.00
California Water Service Company (Dominguez)	Lease with flex	-250.00	7/15/19	TO	South Montebello Irrigation District	
California Water Service Company (Dominguez)	Lease with flex	-1,000.00	6/2/20	TO	Whittier, City of	
California Water Service Company (Dominguez)	Lease with flex	-1,250.00	10/9/19	TO	Whittier, City of	
California Water Service Company (East LA)	Lease with flex	-750.00	12/17/18	TO	Liberty Utilities Corporation	-3,250.00
California Water Service Company (East LA)	Lease with flex	-250.00	7/15/19	TO	South Montebello Irrigation District	
California Water Service Company (East LA)	Lease with flex	-1,250.00	10/9/19	TO	Whittier, City of	
California Water Service Company (East LA)	Lease with flex	-1,000.00	6/2/20	TO	Whittier, City of	
Cerritos, City of	Lease with flex	250.00	11/12/19	FROM	ABC Unified School District	3,770.75
Cerritos, City of	Lease with flex	12.00	6/14/19	FROM	Artesia Cemetery District	
Cerritos, City of	Lease with flex	1.00	6/14/19	FROM	Buell, Mary Dolores	
Cerritos, City of	Lease with flex	3.75	6/14/19	FROM	Corning Trust	
Cerritos, City of	Lease with flex	4.00	6/14/19	FROM	Nancy Dee Keane Living Trust	
Cerritos, City of	Lease with flex	500.00	4/4/19	FROM	PABCO Building Products, LLC	
Cerritos, City of	Lease	3,000.00	8/21/17	FROM	South Gate, City of	

Table 10 - Leases (acre-feet)

Party	Transaction Type	Amount	Recordation Date		Party	Net Amount
Coast Packing Company	Lease with flex	-425.00	3/22/17	TO	Liberty Utilities Corporation	-425.00
Commerce, City of	Lease with flex	-3,000.00	6/5/17	TO	Liberty Utilities Corporation	-3,000.00
Corning Trust	Lease with flex	-3.75	6/14/19	TO	Cerritos, City of	-3.75
EcoGas, Inc.	Lease with flex	306.00	3/5/19	FROM	Bellflower Home Garden Water Company	0.00
EcoGas, Inc.	Lease with flex	-306.00	3/6/19	TO	Liberty Utilities Corporation	
Golden State Water Company	Lease with flex	750.00	7/1/18	FROM	Bell Gardens, City of	1,950.00
Golden State Water Company	Lease with flex	1,200.00	5/19/19	FROM	Huntington Park, City of	
Hathaway, RIchard F, Jr.	Lease with flex	-4.07	10/9/19	TO	La Habra Heights County Water District	-4.07
Hoke, Barbara	Lease with flex	-1.50	6/14/19	TO	Montebello Land and Water Company	-1.50
Huntington Park, City of	Lease with flex	-1,200.00	5/19/20	TO	Golden State Water Company	-1,200.00
Inglewood Park Cemetery	Lease with flex	-317.00	5/20/20	TO	Liberty Utilities Corporation	-317.00
La Habra Heights County Water District	Lease with flex	4.07	10/9/19	FROM	Hathaway, RIchard F, Jr.	-120.93
La Habra Heights County Water District	Lease	-125.00	7/16/19	TO	Orchard Dale Water District	
Lakewood, City of Water Department	Lease	-4,000.00	4/21/21	TO	Long Beach, City of	-2,053.41
Lakewood, City of Water Department	Lease	1,946.59	8/11/20	FROM	Long Beach, City of	
Liberty Utilities Corporation	Lease with flex	750.00	12/17/18	FROM	California Water Service Company (Dominguez)	7,771.00
Liberty Utilities Corporation	Lease with flex	750.00	12/17/18	FROM	California Water Service Company (East LA)	
Liberty Utilities Corporation	Lease with flex	425.00	3/22/17	FROM	Coast Packing Company	
Liberty Utilities Corporation	Lease with flex	3,000.00	6/5/17	FROM	Commerce, City of	
Liberty Utilities Corporation	Lease with flex	306.00	3/6/19	FROM	EcoGas, Inc.	
Liberty Utilities Corporation	Lease with flex	317.00	5/20/20	FROM	Inglewood Park Cemetery	
Liberty Utilities Corporation	Lease with flex	1,800.00	9/11/19	FROM	Pico Rivera, City of	
Liberty Utilities Corporation	Lease with flex	390.00	5/11/20	FROM	Sativa LA County Water DIstrict	
Liberty Utilities Corporation	Lease with flex	33.00	8/7/19	FROM	Simmons Survivors Trust	

Table 10 - Leases (acre-feet)

Party	Transaction Type	Amount	Recordation Date		Party	Net Amount
Long Beach, City of	Lease	4,000.00	4/21/20	FROM	Lakewood, City of Water Department	3,053.41
Long Beach, City of	Lease	-1,946.59	8/11/20	TO	Lakewood, City of Water Department	
Long Beach, City of	Lease	1,000.00	6/15/20	FROM	Vernon, City of	
Lunday-Thagard Oil Company	Lease with flex	-130.00	6/15/20	TO	Montebello Land and Water Company	-130.00
Martin, Mary	Lease with flex	-28.00	6/14/19	TO	Montebello Land and Water Company	-28.00
Montebello Land and Water Company	Lease with flex	80.00	11/25/19	FROM	California Domestic Water Company	677.50
Montebello Land and Water Company	Lease with flex	1.50	6/14/19	FROM	Hoke, Barbara	
Montebello Land and Water Company	Lease with flex	130.00	6/15/20	FROM	Lunday-Thagard Oil Company	
Montebello Land and Water Company	Lease with flex	28.00	6/14/19	FROM	Martin, Mary	
Montebello Land and Water Company	Lease with flex	386.50	7/15/20	FROM	Montebello, City of	
Montebello Land and Water Company	Lease with flex	1.50	6/14/19	FROM	Rosing, Nancy	
Montebello Land and Water Company	Lease	-400.00	8/7/19	TO	San Gabriel Valley Water Company	
Montebello Land and Water Company	Lease with flex	400.00	9/26/19	FROM	San Gabriel Valley Water Company	
Montebello Land and Water Company	Lease with flex	50.00	6/14/19	FROM	Whittier Union High School District	
Montebello, City of	Lease with flex	-386.50	7/15/20	TO	Montebello Land and Water Company	-386.50
Nancy Dee Keane Living Trust	Lease with flex	-4.00	6/14/19	TO	Cerritos, City of	-4.00
Orchard Dale Water District	Lease	125.00	7/16/19	FROM	La Habra Heights County Water District	925.00
Orchard Dale Water District	Lease	800.00	8/7/19	FROM	Pico Water District	
PABCO Building Products, LLC	Lease with flex	-500.00	4/4/19	TO	Cerritos, City of	-500.00
Pico Rivera, City of	Lease with flex	-1,800.00	9/11/19	TO	Liberty Utilities Corporation	-1,800.00
Pico Water District	Lease	-800.00	8/7/19	TO	Orchard Dale Water District	-800.00
Rosing, Nancy	Lease with flex	-1.50	6/14/19	TO	Montebello Land and Water Company	-1.50
San Gabriel Valley Water Company	Lease	400.00	8/7/19	FROM	Montebello Land and Water Company	0.00
San Gabriel Valley Water Company	Lease with flex	-400.00	6/18/19	TO	Montebello Land and Water Company	

Table 10 - Leases (acre-feet)

Party	Transaction Type	Amount	Recordation Date		Party	Net Amount
Sativa LA County Water District	Lease with flex	-390.00	5/11/20	TO	Liberty Utilities Corporation	-390.00
September Properties LLC	Lease with flex	-20.00	12/19/19	TO	Tract 349 Mutual Water Company	-20.00
Simmons Survivors Trust	Lease with flex	-33.00	8/7/19	TO	Liberty Utilities Corporation	-33.00
South Gate, City of	Lease	-3,000.00	8/21/17	TO	Cerritos, City of	-3,000.00
South Montebello Irrigation District	Lease with flex	250.00	7/15/19	FROM	California Water Service Company (Dominguez)	500.00
South Montebello Irrigation District	LEase with flex	250.00	7/15/19	FROM	California Water Service Company (East LA)	
Suburban Water Systems	Lease with flex	-2.60	7/16/20	TO	Whittier, City of	-1,642.60
Suburban Water Systems	Lease with flex	-1,000.00	2/20/20	TO	Whittier, City of	
Suburban Water Systems	Lease with flex	-500.00	5/20/20	TO	Whittier, City of	
Suburban Water Systems	Lease with flex	-140.00	1/9/20	TO	Whittier, City of	
Tract 180 Mutual Water Company	Lease with flex	-200.00	1/7/20	TO	Tract 349 Mutual Water Company	-450.00
Tract 180 Mutual Water Company	Lease with flex	-250.00	9/12/18	TO	Walnut Park Mutual Water Company	
Tract 349 Mutual Water Company	Lease with flex	60.00	12/10/19	FROM	Baker Commodities Inc.	280.00
Tract 349 Mutual Water Company	Lease with flex	20.00	12/19/19	FROM	September Properties LLC	
Tract 349 Mutual Water Company	Lease with flex	200.00	1/7/20	FROM	Tract 180 Mutual Water Company	
Vernon, City of	Lease	-1,000.00	6/15/20	TO	Long Beach, City of	-1,000.00
Walnut Park Mutual Water Company	Lease with flex	250.00	9/12/18	FROM	Tract 180 Mutual Water Company	250.00
Whittier, City of	Lease with flex	1,000.00	6/2/20	FROM	California Water Service Company (Dominguez)	6,142.60
Whittier, City of	Lease with flex	1,250.00	10/9/19	FROM	California Water Service Company (Dominguez)	
Whittier, City of	Lease with flex	1,000.00	6/2/20	FROM	California Water Service Company (East LA)	
Whittier, City of	Lease with flex	1,250.00	10/9/19	FROM	California Water Service Company (East LA)	
Whittier, City of	Lease with flex	1,000.00	2/20/20	FROM	Suburban Water Systems	
Whittier, City of	Lease with flex	500.00	5/20/20	FROM	Suburban Water Systems	
Whittier, City of	Lease with flex	140.00	1/9/20	FROM	Suburban Water Systems	

Table 10 - Leases (acre-feet)

Party	Transaction Type	Amount	Recordation Date		Party	Net Amount
Whittier, City of	Lease with flex	2.60	7/16/20	FROM	Suburban Water Systems	
Whittier Union High School District	Lease with flex	-50.00	6/14/19	TO	Montebello Land and Water Company	-50.00
Total Leased Volume (a.f.)		**31,003.51**				

Table 11 - Change of Ownership (acre-feet)

Party	Transaction Type	Amount	Recordation Date		Party	Net Amount
EcoGas, Inc.	Sale	-7.97	5/19/20	TO	OU2 Environmental Remediation Trust	-7.97
EcoGas, Inc.	Transfer of DCO 77	-1.38	5/19/20	TO	OU2 Environmental Remediation Trust	-32.95
EcoGas, Inc.	Tranfers of DCO 91	-11.57	5/19/20	TO	OU2 Environmental Remediation Trust	
EcoGas, Inc.	Transfer of NCO	-20.00	5/19/20	TO	OU2 Environmental Remediation Trust	
Liberty Utilities Corporation	Sale	299.00	1/6/20	FROM	TF Hidden Creeks, L.P.	299.00
Liberty Utilities Corporation	Transfer of NCO	179.40	1/6/20	FROM	TF Hidden Creeks, L.P.	179.40
OU2 Environmental Remediation Trust	Sale	7.97	5/19/20	FROM	EcoGas, Inc.	7.97
OU2 Environmental Remediation Trust	Transfer of DCO 77	1.38	5/19/20	FROM	EcoGas, Inc.	32.95
OU2 Environmental Remediation Trust	Tranfers of DCO 91	11.57	5/19/20	FROM	EcoGas, Inc.	
OU2 Environmental Remediation Trust	Transfer of NCO	20.00	5/19/20	FROM	EcoGas, Inc.	
TF Hidden Creeks, L.P.	Sale	-299.00	1/6/20	TO	Liberty Utilities Corporation	-299.00
TF Hidden Creeks, L.P.	Transfer of NCO	-179.40	1/6/20	TO	Liberty Utilities Corporation	-179.40

Total Carryover Transfers	**212.35**
Total APA Transfers	**306.97**
Total Change of Ownership	**519.32**

Table 12 - Exchange Pool

Party	APA (acre-feet)	Required Offer (acre-feet)	Actual Offer (acre-feet)	Amount Sold (acre-feet)	Payment due Exchanger
There were no requests to purchase water, therefore, operation of the Exchange Pool Program was suspended in the 2019 - 2020 AY.					

Table 13 - Extraction Wells Completed

Party	Recordation No.	State Well No.	Owner Designation
There were no extraction wells completed in the 2019-2020 AY.			

Table 14 - Extraction Wells Destroyed

Party	Recordation No.	State Well No.
Inglewood Park Cemetery	1901574	2S/14W-27M01S

Table 15 - Replenishment Operations

Water spread in the Montebello Forebay area of the Central Basin.

Source of Water	Quantity (acre-feet)	
	2018 - 2019	2019-2020
Local Runoff	81,531	35,447
Recycled water:		
Whittier Narrows Water Reclamation Plant	6,665	8,413
San Jose Water Reclamation Plant	37,818	36,391
Pomona Water Reclamation Plant	3,447	3,409
MWD untreated Tier 1 water purchased by WRD	5,340	0
Make-up water from Upper San Gabriel Basin	0	0
Total	**134,801**	**83,660**

Table 16 - WRD In-Lieu Recharge

Party	In-Lieu Amount (acre-feet)
Long Beach, City of	5,000.00
Total	**5,000.00**

Table 17 - Imported Water Use

Source of Water	Party/Entity	Quantity (acre-feet)	
		2018-2019	2019-2020
State Water Project and Colorado River	**Compton, City of**	0	38
	Long Beach, City of	20,312	23,646
	Subtotal	**20,312**	**23,684**
	Central Basin Municipal Water District:		
	Bell Gardens, City of	34	440
	Bellflower - Somerset Mutual Water Company	0	0
	California Water Service Company (ELA)	4,534	4,384
	California Water Service Company (Commerce)	3952	694
	Cerritos, City of	3	83
	Downey, City of	0	0
	Golden State Water Company	2,286	3,095
	Huntington Park, City of	894	1,336
	La Habra Heights County Water District	2	7
	Liberty Utilities Corporation	1,411	2,371
	Los Angeles County Rancho Los Amigos	0	0
	Lynwood, City of	0	0
	Maywood Mutual Water Company No. 1	0	6
	Maywood Mutual Water Company No. 2	92	193
	Maywood Mutual Water Company No. 3	0	0
	Montebello, City of	0	28
	Norwalk, City of	767	398
	Orchard Dale Water District	0	0
	Paramount, City of	468	214
	San Gabriel Valley Water Company	0	2
	Santa Fe Springs, City of	3,000	2,580
	Signal Hill, City of	13	1
	South Gate, City of	0	0
	Suburban Water Systems	219	62
	Vernon, City of	643	536
	Walnut Park Mutual Water Company	0	0
	CBMWD Subtotal	**14,721**	**16,430**
State Water Project, Colorado River, Owens River-Mono Basin	**Los Angeles, City of**	**31,716**	**31,623**
San Gabriel Basin groundwater			
	California Domestic Water Company	19,722	20,795
	San Gabriel Valley Water Company	4,054	4,203
	Suburban Water Systems	10,968	20,119
	Whittier, City of	2,156	1,234
	San Gabriel Basin Subtotal	**36,900**	**46,431**
	Total Imported Water by Parties	**103,649**	**118,168**
	Total Imported Water by Non-parties	**0**	**0**
	Total Imported Water	**103,649**	**118,168**

Table 18 - Recycled Water Use

Source of Water	Party/Entity	Quantity (acre-feet)[1]	
		2018-2019	2019-2020
Century - E. Thornton Ibbetson Reclamation Program	Bellfower, City of (Bellflower Municipal Systems)	8	8
	Bellfower-Somerset Mutual Water Company	94	95
	Downey, City of	693	647
	Golden State Water Company	349	396
	Liberty Utilities Corporation	266	258
	Lynwood, City of	53	37
	Norwalk, City of	74	67
	Paramount, City of	299	315
	Santa Fe Springs, City of	966	846
	South Gate. City of	199	247
	Cudahy, City of [2]	3	2
	Los Angeles County - Rancho Los Amigos	174	182
	Century Subtotal	**3,178**	**3,100**
Cerritos Reclamation Program	Cerritos, City of	1,714	1778
	Lakewood, City of	418	447
	Cerritos Reclamation Subtotal	**2,132**	**2,225**
Rio Hondo - Esteban E. Torres Reclamation Program	Huntington Park, City of	41	43
	San Gabriel Valley Water Company	116	122
	Whittier, City of	62	60
	Pico Rivera, City of	73	74
	Pico Water District	64	56
	Vernon, City of	622	734
	Upper San Gabriel Valley MWD [2]	46	42
	Esteban E. Torres Subtotal	**1,025**	**1,131**
Long Beach	Long Beach, City of	4,031	4,176
	Total Recycled Water by Parties	**10,317**	**10,588**
	Total Recycled Water by Non-parties	**49**	**44**
	Total Recycled Water	**10,366**	**10,632**

[1] Excludes recycled water used for groundwater recharge.

[2] Non-party.

Table 19 - Alamitos Gap Barrier Project Operations

Barrier Project	Quantity (acre-feet)	
	2018-2019	2019-2020
Water injected (on the LA County side of the Barrier)		
Imported water	3,227.9	2,920.7
Recycled water	72.7	520.8
Total	**3,301**	**3,442**

Table 20 - Apportionment of Budget Among Rights Holders

Party	APA (acre-feet)	Water Rights Panel	Administrative Body	Total Amount Billed
ABC Unified School District	298.00	$238.40	$295.52	$533.92
American Textile Maintenance Company	65.00	$52.00	$80.10	$132.10
Angeles Abbey Memorial Park, Inc.	4.00	$3.20	$0.00	$3.20
Artesia Cemetery District	12.00	$9.60	$0.00	$9.60
Artesia, City of	24.00	$19.20	$42.19	$61.39
Automobile Club of Southern California	6.00	$4.80	$0.00	$4.80
Baker Commodities Inc.	60.00	$48.00	$0.00	$48.00
Bell Gardens, City of	1,914.00	$1,531.20	$1,789.61	$3,320.81
Bellflower, City of	1,380.00	$1,104.00	$1,295.90	$2,399.90
Bellflower Home Garden Water Co.	306.00	$244.80	$0.00	$244.80
Bellflower Unified School District	89.00	$71.20	$0.00	$71.20
Bellflower-Somerset Mutual Water Co.	4,412.88	$3,530.30	$4,099.98	$7,630.28
Boy Scouts of America	1.00	$0.80	$0.00	$0.80
Buell, Mary Dolores	1.00	$0.80	$0.00	$0.80
California American Water Company	2,175.00	$1,740.00	$2,030.92	$3,770.92
California Domestic Water Company	87.00	$69.60	$0.00	$69.60
California, State of (Caltrans)	50.00	$40.00	$66.23	$106.23
Cal. Water Service Company (East LA)	11,774.00	$9,419.20	$10,905.77	$20,324.97
Cal. Water Service Company (Dominguez)	6,480.00	$5,184.00	$6,011.15	$11,195.15
Central Basin Municipal Water District	4.65	$3.72	$0.00	$3.72
Cerritos, City of	4,680.03	$3,744.02	$4,346.97	$8,090.99
Cerritos Community College District	147.00	$117.60	$0.00	$117.60
Chang, I-Hsin and Associates	1.00	$0.80	$0.00	$0.80

Table 20 - Apportionment of Budget Among Rights Holders (Continued)

Party	APA (acre-feet)	Water Rights Panel	Administrative Body	Total Amount Billed
Coast Packing Company	530.00	$424.00	$510.02	$934.02
Commerce, City of	5,081.00	$4,064.80	$4,717.69	$8,782.49
Compton, City of	5,780.00	$4,624.00	$5,363.96	$9,987.96
Compton Unified School District	38.00	$30.40	$0.00	$30.40
Corning Trust	3.75	$3.00	$0.00	$3.00
Crandell, F.J.	1.00	$0.80	$0.00	$0.80
Darling-Delaware Company, Inc	117.00	$93.60	$0.00	$93.60
Dolan, J.E. P.A. & T.P.	2.00	$1.60	$0.00	$1.60
Downey, City of	16,553.62	$13,242.90	$15,324.82	$28,567.72
EcoGas, Inc.	12.97	$10.38	$0.00	$10.38
El Rancho Unified School District	55.00	$44.00	$70.86	$114.86
Emoto, John H	2.00	$1.60	$0.00	$1.60
Equilon Enterprises, LLC	6.00	$4.80	$0.00	$4.80
Exide Technologies	62.00	$49.60	$0.00	$49.60
Flesch, Elizabeth Et Al	14.00	$11.20	$0.00	$11.20
Footbridge 1 Trust	3.75	$3.00	$0.00	$3.00
Ford Motor Company	4.50	$3.60	$0.00	$3.60
Forestar (USA) Real Estate Group Inc.	299.00	$239.20	$0.00	$239.20
Golden State Water Company	16,439.20	$13,151.36	$15,219.03	$28,370.39
Gordon, Robert E.	4.00	$3.20	$0.00	$3.20
Graham, Hugh W or Marcia K, Trustees	6.00	$4.80	$0.00	$4.80
Harada Brothers	6.00	$4.80	$0.00	$4.80
Hathaway, Merrie F	1.86	$1.49	$0.00	$1.49
Hathaway, Richard F, Jr.	4.07	$3.26	$0.00	$3.26
Hathaway, William A	4.07	$3.26	$0.00	$3.26
Hathaway, Loline	4.08	$3.26	$0.00	$3.26
Hoke, Barbara	1.50	$1.20	$0.00	$1.20
Huntington Park, City of	3,853.00	$3,082.40	$3,582.33	$6,664.73
Inglewood Park Cemetery	317.00	$253.60	$0.00	$253.60
LA Brickyard, LLC	9.00	$7.20	$0.00	$7.20
La Habra Heights County Water District	2,646.00	$2,116.80	$2,466.39	$4,583.19
Lakewood, City of Water Department	9,432.00	$7,545.60	$8,740.45	$16,286.05
Liberty Utilities Corporation	849.30	$679.44	$805.23	$1,484.67
Lincoln Memorial Park Inc	34.00	$27.20	$51.44	$78.64
Little Lake Cemetery District	14.00	$11.20	$32.95	$44.15
Long Beach, City of	32,692.00	$26,153.60	$30,245.72	$56,399.32
Los Angeles, City of DWP	17,236.00	$13,788.80	$15,955.72	$29,744.52
Los Angeles County Rancho Los Amigos	490.00	$392.00	$473.04	$865.04

Table 20 - Apportionment of Budget Among Rights Holders (Continued)

Party	APA (acre-feet)	Water Rights Panel	Administrative Body	Total Amount Billed
Lunday-Thagard Oil Company	212.00	$169.60	$216.01	$385.61
Lussman, Paul H. Jr., Et Al	7.00	$5.60	$26.48	$32.08
Lynwood, City of	5,337.00	$4,269.60	$4,954.38	$9,223.98
Lynwood Park Mutual Water Company	222.00	$177.60	$225.26	$402.86
Margulies, Kathryn and Schwartz, Jon	3.00	$2.40	$0.00	$2.40
Martin, Mary	28.00	$22.40	$0.00	$22.40
Maywood Mutual Water Company No. 1	741.00	$592.80	$705.10	$1,297.90
Maywood Mutual Water Company No. 2	912.00	$729.60	$863.20	$1,592.80
Maywood Mutual Water Company No. 3	1,407.00	$1,125.60	$1,320.86	$2,446.46
Metro-H2O	4.07	$3.26	$0.00	$3.26
Mitsuuchi, Mary F Trust	11.00	$8.80	$0.00	$8.80
Montebello, City of	386.50	$309.20	$377.35	$686.55
Montebello Land and Water Company	1,829.00	$1,463.20	$1,711.03	$3,174.23
Nancy Dee Keane Living Trust	4.00	$3.20	$0.00	$3.20
New England Mutual Life Insurance Co.	2.00	$1.60	$0.00	$1.60
Newark Group, Inc., The	157.00	$125.60	$165.16	$290.76
Northrop Grumman/Omega Chemical	4.50	$3.60	$0.00	$3.60
Norwalk, City of	2,273.00	$1,818.40	$2,121.53	$3,939.93
Norwalk-La Mirada Unified School Dist.	378.00	$302.40	$0.00	$302.40
O N K Farms	8.00	$6.40	$0.00	$6.40
Oltmans Construction Company	3.00	$2.40	$0.00	$2.40
Orchard Dale Water District	1,254.00	$1,003.20	$1,179.40	$2,182.60
PABCO Building Products, LLC	500.00	$400.00	$0.00	$400.00
Paradise Memorial Park	16.00	$12.80	$34.80	$47.60
Paramount, City of	5,883.00	$4,706.40	$5,459.19	$10,165.59
Paramount Unified School District	46.00	$36.80	$62.53	$99.33
Patrician Associates Inc/Majestic Realty Co.	12.00	$9.60	$0.00	$9.60
Petersburg, L.P.	1.00	$0.80	$0.00	$0.80
Pico Boys Baseball, Inc.	13.00	$10.40	$0.00	$10.40
Pico Water District	3,624.00	$2,899.20	$3,370.61	$6,269.81
Pico Rivera, City of	5,579.00	$4,463.20	$5,178.13	$9,641.33
Puente Basin Water Agency	965.00	$772.00	$0.00	$772.00
Rippy, Francine	4.07	$3.26	$0.00	$3.26
Rockview Dairies, Inc.	101.00	$80.80	$113.39	$194.19
Roman Catholic Archbishop of LA	347.00	$277.60	$340.83	$618.43
Rosales, Elvira C	3.00	$2.40	$0.00	$2.40
Rosing, Nancy	1.50	$1.20	$0.00	$1.20
Rowland Water District	1.00	$0.80	$20.93	$21.73

Table 20 - Apportionment of Budget Among Rights Holders (Continued)

Party	APA (acre-feet)	Water Rights Panel	Administrative Body	Total Amount Billed
St John Bosco School	42.00	$33.60	$58.84	$92.44
San Gabriel Valley Water Company	2,565.35	$2,052.28	$2,391.82	$4,444.10
Santa Fe Springs, City of	4,035.78	$3,228.62	$3,751.33	$6,979.95
Sativa L A County Water District	474.00	$379.20	$458.25	$837.45
Scantlebury, Robert P.	4.00	$3.20	$23.70	$26.90
September Properties LLC	22.00	$17.60	$40.35	$57.95
Signal Hill, City of	2,022.00	$1,617.60	$1,889.47	$3,507.07
Simmons Survivors Trust	33.00	$26.40	$0.00	$26.40
South Montebello Irrigation District	1,268.00	$1,014.40	$1,192.35	$2,206.75
Southern California Edison Company	670.00	$536.00	$639.46	$1,175.46
South Gate, City of	11,183.00	$8,946.40	$10,359.36	$19,305.76
Statewide Stations, Inc.	1.00	$0.80	$0.00	$0.80
Suburban Water Systems	3,721.00	$2,976.80	$3,460.29	$6,437.09
Tesoro Refining & Marketing Co. LLC	54.00	$43.20	$0.00	$43.20
Tract 180 Mutual Water Company	2,137.00	$1,709.60	$1,995.79	$3,705.39
Tract 349 Mutual Water Company	423.00	$338.40	$411.09	$749.49
Tucker, William M./Robertson, Bobby Ray Jr.	1.00	$0.80	$20.93	$21.73
Vangrootheest, Ernest A	10.00	$8.00	$0.00	$8.00
Vernon, City of	7,539.00	$6,031.20	$6,990.26	$13,021.46
Virginia Country Club	274.00	$219.20	$273.33	$492.53
WEMS, Inc., A California Corp.	8.00	$6.40	$0.00	$6.40
Walnut Park Mutual Water Company	1,009.00	$807.20	$952.89	$1,760.09
Whittier, City of	895.00	$716.00	$847.49	$1,563.49
Whittier Union High School District	100.00	$80.00	$112.46	$192.46
Wolfsberger, Helen/Joseph, Chris	2.00	$1.60	$0.00	$1.60
Yamamoto, George and Alice Acct.	14.00	$11.20	$32.95	$44.15
Total	**217,367.00**	**$173,893.60**	**$198,872.57**	**$372,766.18**

Figure 1 - Central Basin
(showing groundwater production)

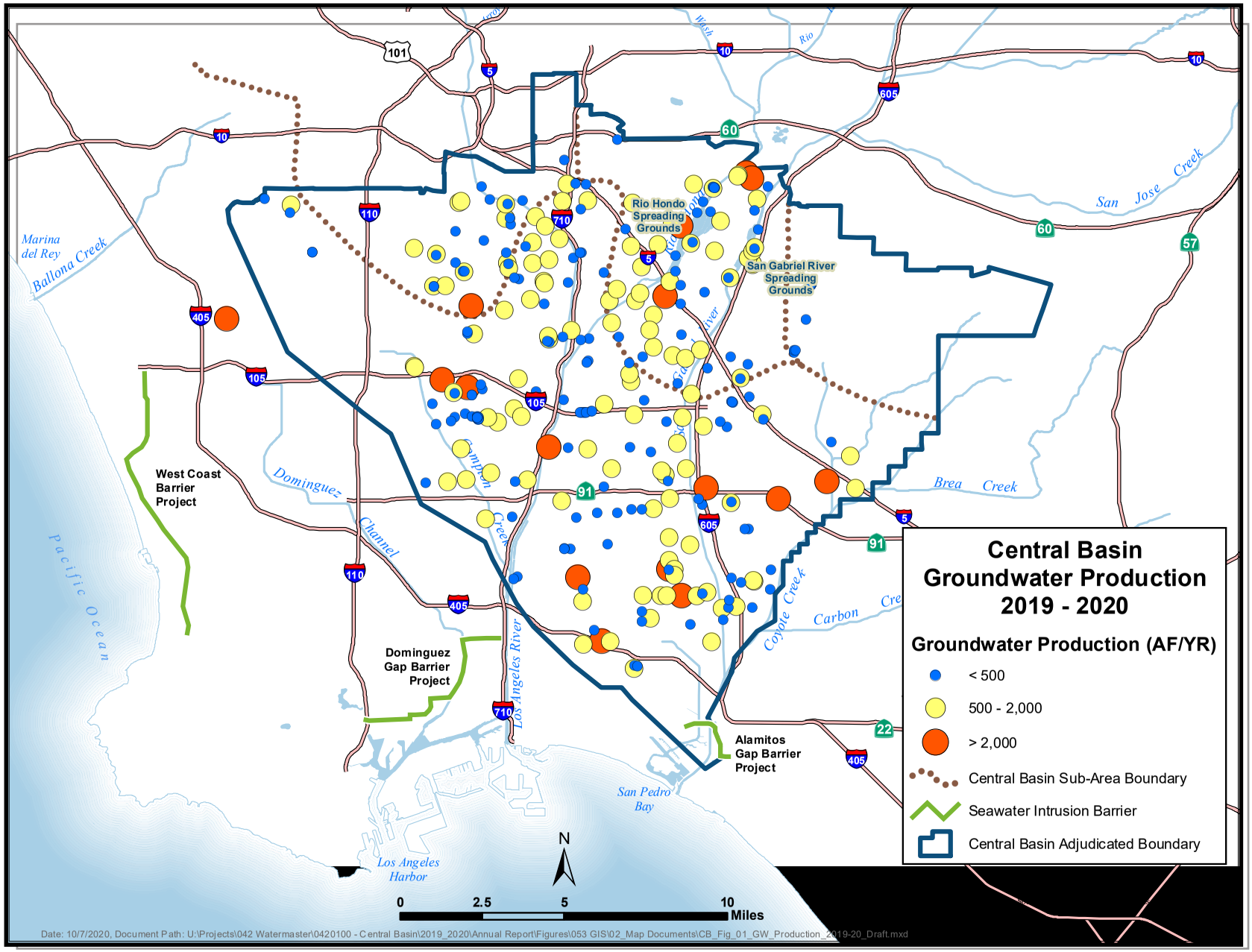


Figure 2 - Monthly Water Production
(excludes non-consumptive use)

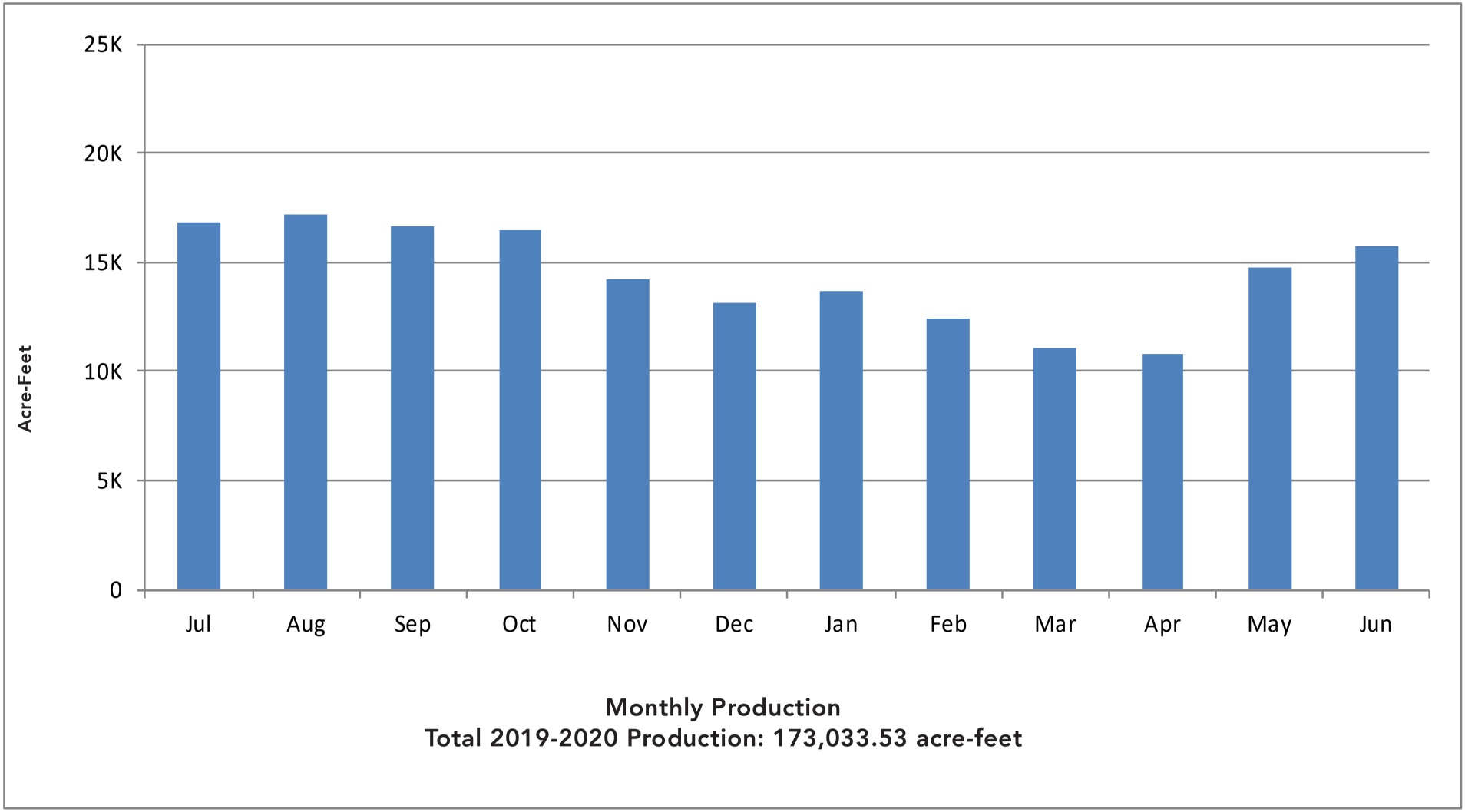


Figure 3 - Central Basin
(showing key wells and facilities)

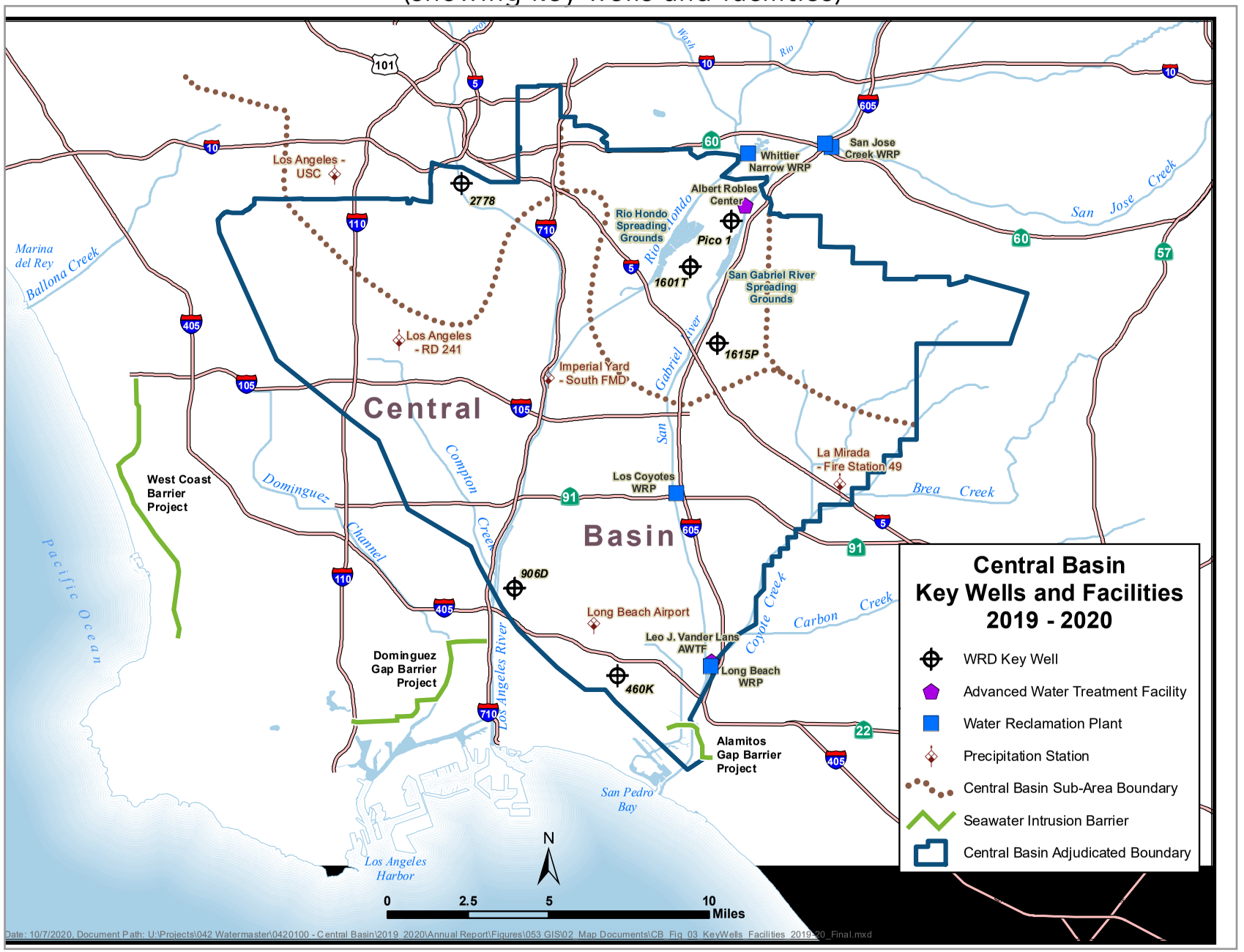


Figure 4 - Monthly Rainfall

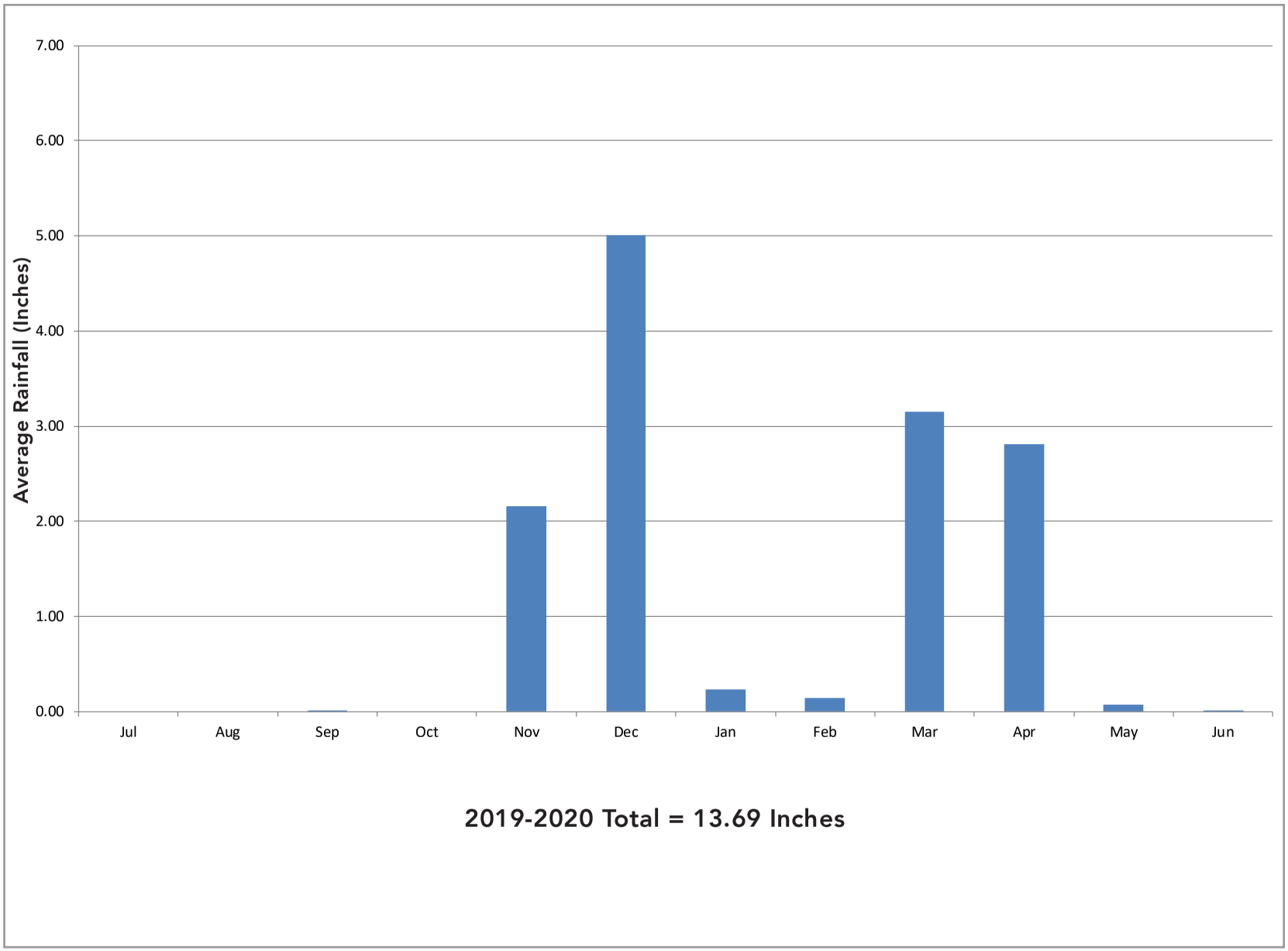


Figure 5 - Total Water Use
(Excludes Groundwater Recharge)

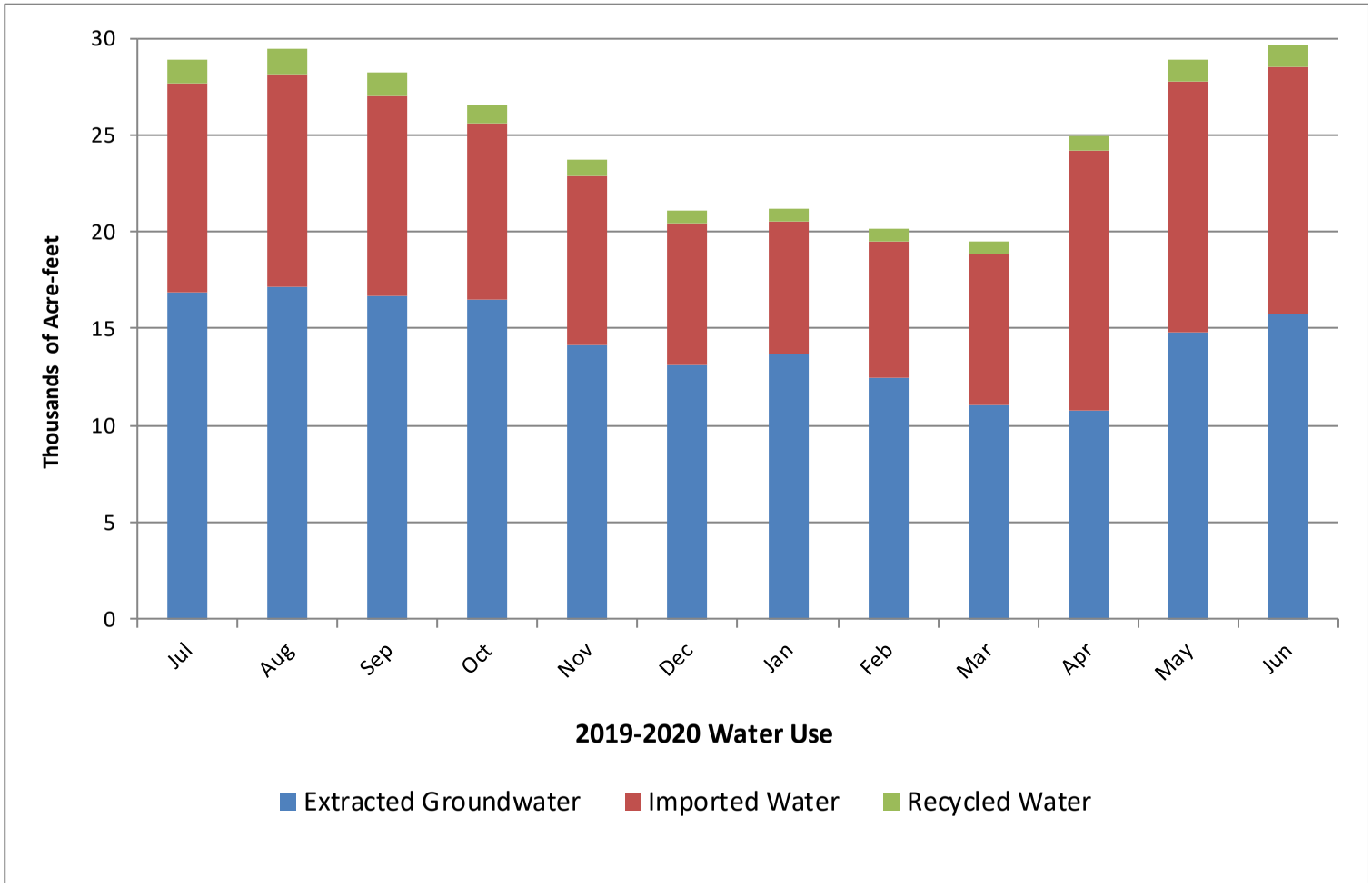
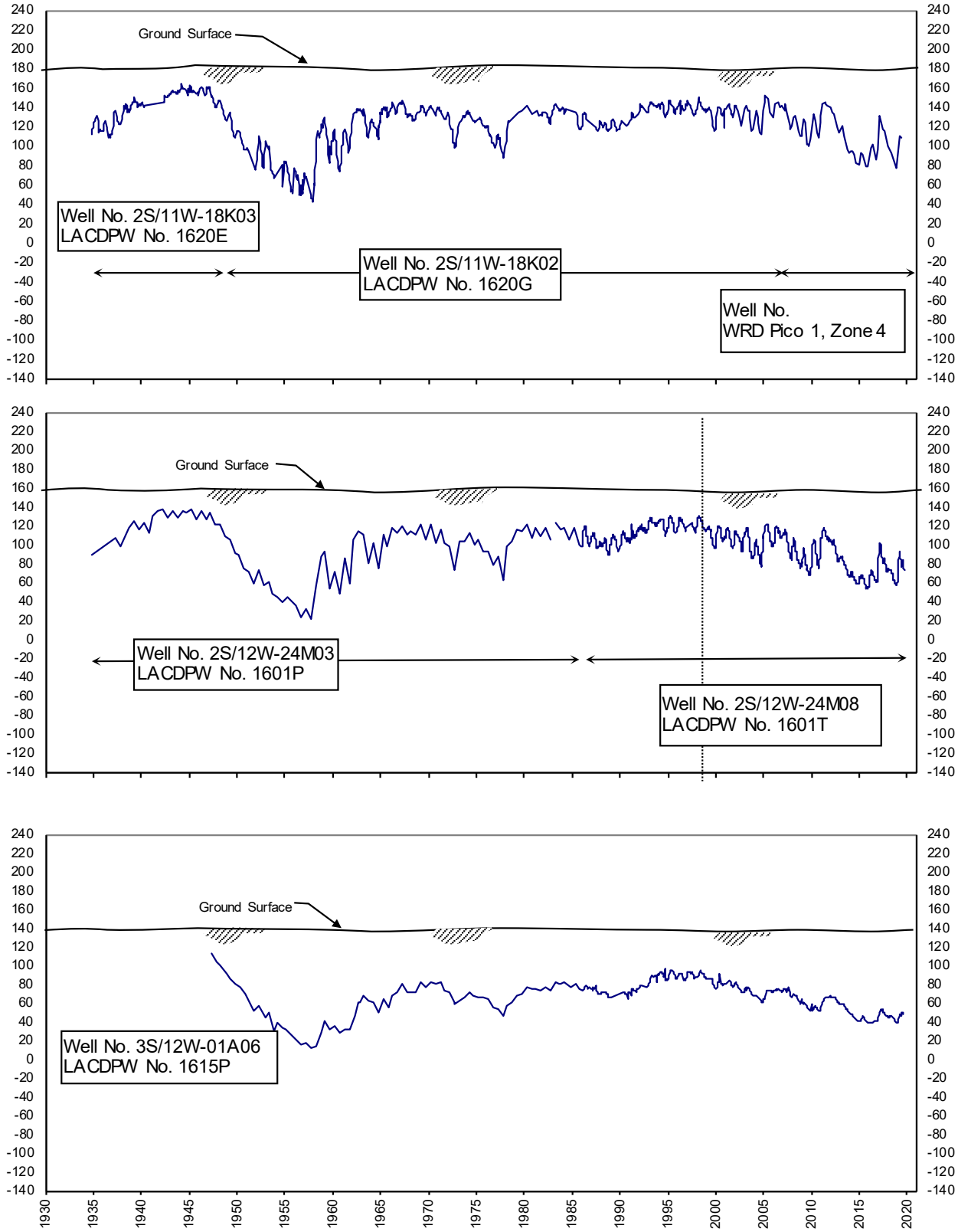


Figure 6 - Key Well Hydrographs - Montebello Forebay



See Figure 3 for well locations.

X-Axis: Year

Y-Axis: Groundwater Elevation (feet mean sea level)

Figure 7 - Key Well Hydrographs - Central Basin Pressure Area

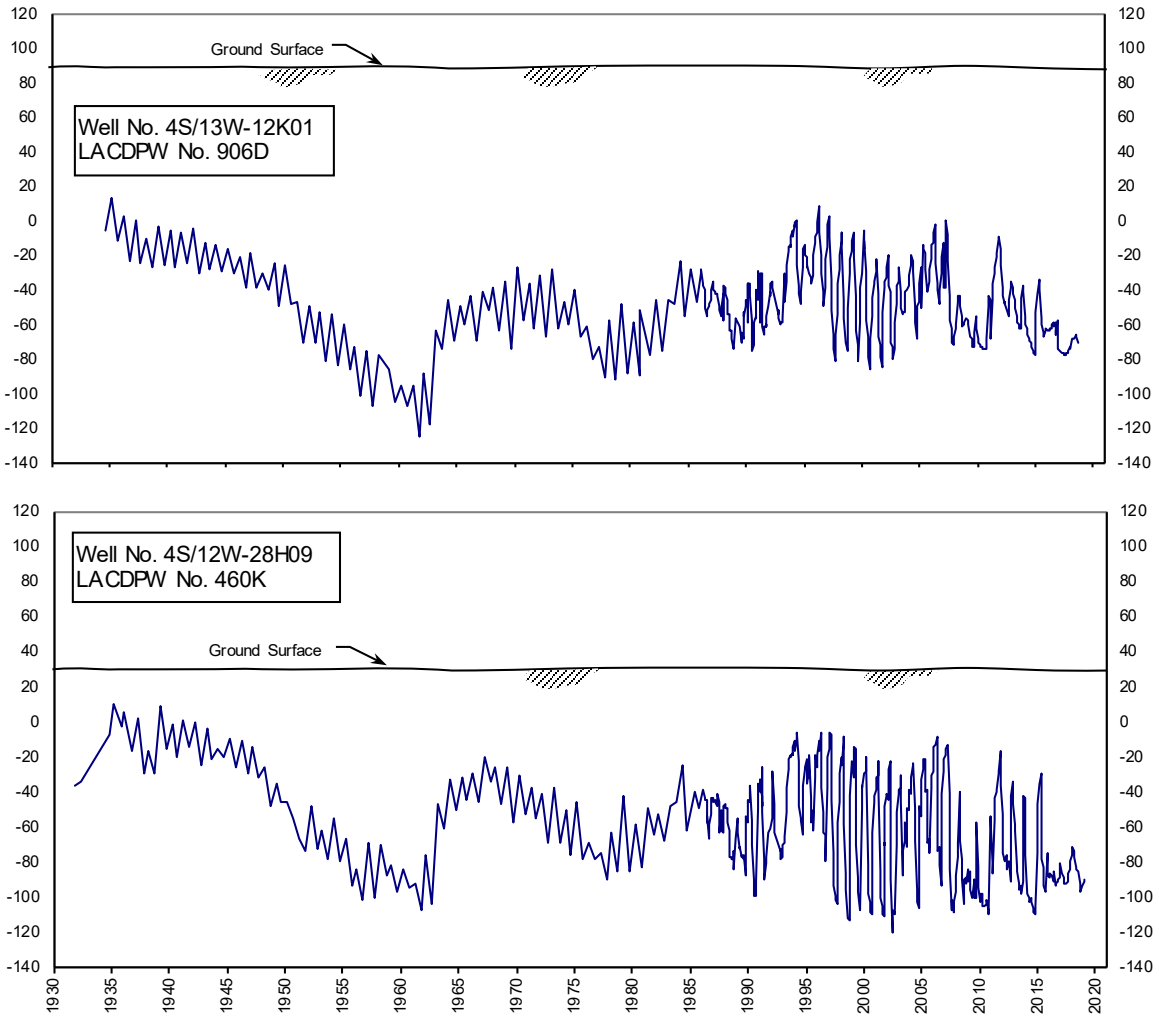
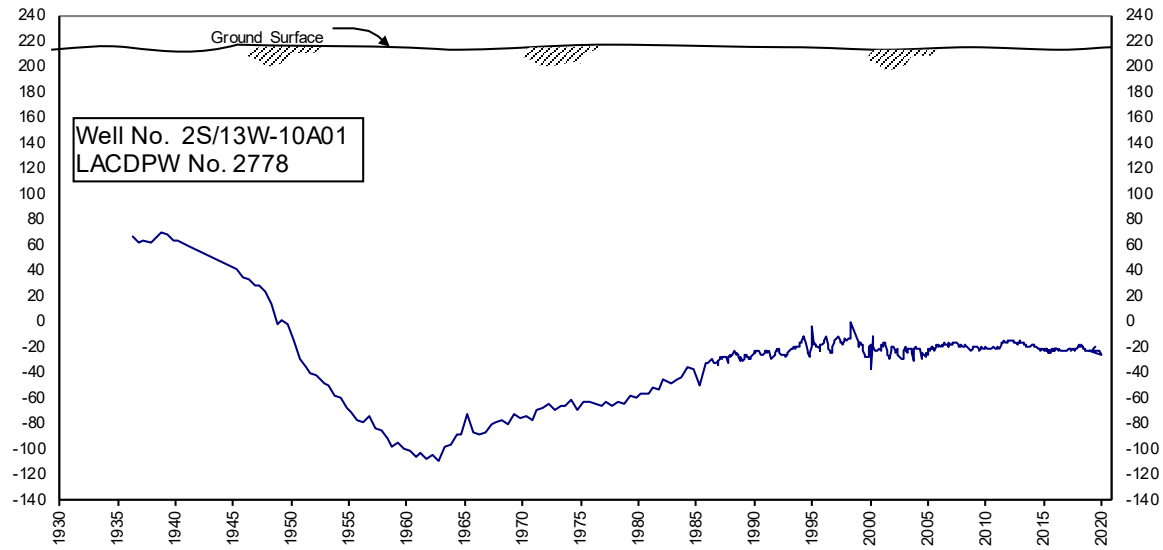


Figure 8 - Key Well Hydrographs - Los Angeles Forebay



See Figure 3 for well locations.

X-Axis: Year

Y-Axis: Groundwater Elevation (feet mean sea level)

Appendix A

Groundwater Extractions

July 2019 - June 2020

Appendix A - Groundwater Extractions (acre-feet)

0020 - ABC Unified School District	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	0.00	0.00	3.64	3.25	1.35	0.00	2.69	0.55	0.99	0.00	0.55	1.95	14.97
004S011W07R003S/MESCH	0.00	0.00	3.64	3.25	1.35	0.00	2.69	0.55	0.99	0.00	0.55	1.95	14.97

0160 - Artesia, City of	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	0.00	3.17	2.44	1.88	1.46	0.47	0.00	2.85	1.21	1.84	2.59	4.79	22.70
003S011W31N002S/1	0.00	3.17	2.44	1.88	1.46	0.47	0.00	2.85	1.21	1.84	2.59	4.79	22.70

0182 - Ashland Chemical Company	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	-0.15	-0.09	-0.06	-0.06	-0.06	-0.04	-0.05	-0.09	-0.05	-0.05	-0.05	-0.04	-0.79
003S011W05G002S/EX-1	-0.15	-0.07	-0.05	-0.05	-0.05	-0.04	-0.05	-0.08	-0.05	-0.05	-0.05	-0.04	-0.73
003S011W05K004S/EX-4	0.00	-0.02	-0.01	0.00	-0.01	0.00	0.00	-0.01	0.00	0.00	0.00	0.00	-0.05
003S011W05K006S/EX-6	0.00	0.00	0.00	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01

0225 - Atlas Iron and Metal Company	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	0.00	0.00	0.07	0.00	0.00	0.07	0.00	0.00	0.70	0.00	0.00	0.80	1.64
002S013W34Q002S/1	0.00	0.00	0.07	0.00	0.00	0.07	0.00	0.00	0.70	0.00	0.00	0.80	1.64

0387 - Bell Gardens, City of	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	76.51	8.12	0.00	0.00	0.00	40.86	81.71	77.03	78.33	76.75	89.70	94.48	623.49
002S012W28M002S/1	76.51	8.12	0.00	0.00	0.00	40.86	81.71	77.03	78.33	76.75	89.70	94.48	623.49

0410 - Bellflower, City of	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	62.74	68.43	49.95	56.44	53.99	40.60	45.91	45.02	48.16	49.58	65.51	59.21	645.54
003S012W27B002S/1	62.74	68.43	49.95	56.44	53.99	40.60	45.91	45.02	48.16	49.58	65.51	59.21	645.54

Appendix A - Groundwater Extractions Continued

0445 - Bellflower-Somerset Mutual Water Company	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	477.43	480.51	471.78	457.54	410.25	371.12	349.06	400.44	389.83	392.72	457.88	396.28	5,054.84
003S012W27R001S/955	62.35	63.79	60.86	63.24	61.48	35.47	50.77	64.30	19.17	31.10	65.14	63.13	640.80
003S012W23E004S/2587	71.01	71.50	68.38	69.28	66.84	66.34	64.18	69.17	66.46	63.30	68.20	0.00	744.66
003S012W22M002S/884	0.13	0.25	0.18	0.15	0.17	0.14	0.18	0.34	0.07	0.16	0.12	0.11	2.00
003S012W27B001S/4	123.76	123.91	117.73	118.99	115.86	74.58	4.58	115.11	114.61	111.18	89.89	55.71	1,165.91
003S012W33B001S/2615	37.31	37.28	35.53	37.65	37.65	37.24	36.61	2.23	24.26	13.15	40.16	36.38	375.45
003S012W27B0025/1	103.47	100.26	110.89	99.19	91.36	113.86	111.34	110.34	114.10	112.44	109.88	122.85	1,299.98
003S012W26C002S/944	56.21	54.90	49.33	46.52	30.02	35.94	67.07	27.01	32.15	41.41	53.52	65.30	559.38
003S012W27H002S/903	23.19	28.62	28.88	22.52	6.87	7.55	14.33	11.94	19.01	19.98	30.97	52.80	266.66

0495 - Boeing Company	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	0.00	0.00	18.99	0.00	0.00	21.60	0.00	0.00	19.01	0.00	0.00	18.87	78.47
004S012W99B999S/	0.00	0.00	18.99	0.00	0.00	21.60	0.00	0.00	19.01	0.00	0.00	18.87	78.47

0679 - California American Water Company	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	84.77	108.66	67.56	97.06	87.89	96.15	110.84	88.61	86.40	113.61	88.61	91.85	1,122.01
002S014W14C006S/VERN3	84.77	108.66	67.56	97.06	87.89	96.15	110.84	88.61	86.40	113.61	88.61	91.85	1,122.01

0742 - California Water Service Company (Dominguez)	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	30.10	176.99	106.12	123.30	117.98	121.08	110.19	111.27	47.18	119.14	122.10	124.93	1,310.38
003S013W35F001S/290-01	6.89	176.99	85.56	93.74	88.50	89.73	86.64	80.89	17.92	87.68	94.62	101.30	1,010.46
004S013W02G002S/272-01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
003S013W35H002S/297-01	23.21	0.00	20.55	29.56	29.48	31.35	23.55	30.38	29.26	31.46	27.48	23.63	299.91

Appendix A - Groundwater Extractions Continued

0740 - California Water Service Company (East LA)	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	724.63	806.71	789.68	716.30	665.26	758.32	938.72	882.26	854.71	806.74	705.55	814.76	9,463.64
002S012W16L001S/38-02	68.51	59.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	127.64
002S012W09Q002S/62-02	1.26	0.00	0.00	0.00	0.00	83.23	217.22	226.17	283.68	237.29	288.21	263.89	1,600.95
002S012W04C001S/25-01	36.07	35.99	35.09	35.97	35.10	35.20	34.84	33.76	33.49	31.59	36.39	33.20	416.69
002S012W08P001S/54-01	65.14	67.51	60.96	65.45	60.43	61.27	88.22	47.66	16.37	58.84	61.01	57.52	710.38
002S012W07H001S/22-01	0.02	14.56	35.52	37.72	36.06	35.62	34.81	32.48	34.71	32.52	33.33	31.91	359.26
002S012W08F001S/43-01	6.01	5.89	57.09	2.91	0.00	0.12	0.06	0.06	0.00	40.20	51.29	48.35	211.98
002S012W14M001S/63-01	376.75	368.14	358.62	324.72	329.98	215.12	134.34	117.66	0.50	0.00	0.00	0.00	2,225.83
002S012W07G002S/39-02	49.49	132.01	126.54	129.97	124.04	124.50	118.66	111.51	117.67	112.56	116.57	111.22	1,374.74
002S012W09Q001S/62-01	1.66	0.00	0.00	0.00	0.00	85.27	198.59	206.92	256.30	187.78	0.22	155.40	1,092.14
002S012W07Q004S/10-03	77.63	81.94	74.61	77.75	38.84	77.13	79.38	71.20	71.20	68.60	77.39	72.94	868.61
002S012W17D002S/13-02	42.09	41.54	41.25	41.81	40.81	40.86	32.60	34.84	40.79	37.36	41.14	40.33	475.42

0690 - California, State of (Caltrans)	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	3.53	1.72	0.91	4.56	4.84	4.51	4.51	0.46	21.97	21.97	0.19	0.23	69.40
003S012W17E005S/1D5	0.78	0.57	0.15	0.13	0.04	0.05	0.04	0.00	0.00	0.00	0.00	0.00	1.76
003S012W17E008S/1D6A	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	2.65	2.65	0.00	0.00	5.32
003S012W17F003S/1D9	0.25	0.22	0.25	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.04
003S012W17E004S/1D4	0.00	0.00	0.13	3.79	0.00	0.00	0.02	0.29	0.00	0.00	0.13	0.09	4.45
003S012W17F002S/1D8	0.07	0.07	0.03	0.05	4.38	4.38	4.34	0.06	15.34	15.34	0.00	0.00	44.06
003S012W17F007S/1D13	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
003S012W17E003S/1D3	0.13	0.75	0.33	0.17	0.05	0.05	0.04	0.00	0.00	0.00	0.03	0.01	1.56
003S012W17E007S/1D7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.79	3.79	0.00	0.00	7.58
003S012W17F006S/1D12	2.30	0.11	0.02	0.00	0.36	0.03	0.06	0.11	0.19	0.19	0.03	0.13	3.53

Appendix A - Groundwater Extractions Continued

0826 - Cerritos, City of	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	790.24	849.19	820.95	856.56	742.85	554.64	661.68	514.68	653.88	669.64	743.15	771.59	8,629.05
003S011W28G005S/C-2	307.13	373.12	345.62	358.91	297.12	131.43	159.97	201.11	211.65	215.46	257.85	334.68	3,194.05
003S011W29N006S/C-1	205.55	199.99	189.14	215.45	193.81	181.09	232.89	47.05	180.92	188.74	212.72	176.09	2,223.44
003S012W26J003S/C-4	277.56	276.08	286.19	282.20	251.92	242.12	268.82	266.52	261.31	265.44	272.58	260.82	3,211.56

0970 - Coast Packing Company	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	9.85	7.94	8.19	10.91	9.63	11.69	9.51	8.07	10.95	7.94	9.41	10.12	114.21
002S013W11P003S/1	9.85	7.94	8.19	10.91	9.63	11.69	9.51	8.07	10.95	7.94	9.41	10.12	114.21

1017 - Commerce, City of	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	149.93	154.74	144.33	148.78	138.61	127.72	141.29	105.67	47.06	47.57	47.73	47.26	1,300.69
002S012W21R002S/7	95.95	101.11	92.78	96.47	89.18	78.21	91.49	60.45	0.00	0.34	0.00	0.41	706.39
002S012W21G003S/4	53.98	53.63	51.55	52.31	49.43	49.51	49.80	45.22	47.06	47.23	47.73	46.85	594.30

1020 - Compton, City of	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	724.50	665.15	678.30	662.82	586.18	497.05	514.75	514.40	537.96	534.24	638.19	676.38	7,229.92
003S013W14K003S/19	150.95	195.17	0.00	0.00	93.64	247.14	184.72	204.39	177.12	254.09	248.58	220.26	1,976.06
003S013W11M002S/16	0.00	1.18	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.22
003S013W27G001S/15	0.00	0.00	0.00	8.61	82.44	50.52	56.07	70.99	91.18	58.09	77.81	63.65	559.36
003S013W27E002S/11	92.92	89.71	102.99	88.93	39.54	51.18	76.93	87.09	94.85	88.29	74.70	85.86	972.99
003S013W14F001S/18	232.87	150.17	330.86	324.52	189.86	0.70	91.80	66.84	111.60	48.58	134.94	100.85	1,783.59
003S013W26C001S/13	138.19	130.87	137.91	137.72	115.96	49.28	0.00	0.00	0.00	0.00	0.22	124.45	834.60
003S013W16B001S/20	0.00	2.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.46
003S013W11M003S/17	109.57	95.59	106.50	103.04	64.74	98.23	105.23	85.09	63.21	85.19	101.94	81.31	1,099.64

Appendix A - Groundwater Extractions Continued

1255 - Defense Logistic Agency Energy	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	0.00	0.00	0.00	0.00	0.00	0.94	0.00	0.00	0.73	0.00	0.00	0.84	2.51
003S011W99A099S/REMED	0.00	0.00	0.00	0.00	0.00	0.94	0.00	0.00	0.73	0.00	0.00	0.84	2.51

1333 - Demenno/Kerdoon	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	0.00	0.00	1.18	0.00	0.00	0.84	0.00	0.00	0.86	0.00	0.00	0.82	3.70
003S013W15H004S/RW-8	0.00	0.00	0.10	0.00	0.00	0.08	0.00	0.00	0.06	0.00	0.00	0.05	0.29
003S013W14E001S/MW-5A	0.00	0.00	0.06	0.00	0.00	0.04	0.00	0.00	0.02	0.00	0.00	0.01	0.13
003S013W15J002S/RW-5	0.00	0.00	0.03	0.00	0.00	0.03	0.00	0.00	0.02	0.00	0.00	0.02	0.10
003S013W15H006S/RW-4	0.00	0.00	0.01	0.00	0.00	0.03	0.00	0.00	0.01	0.00	0.00	0.00	0.05
003S013W15H003S/RW-7	0.00	0.00	0.14	0.00	0.00	0.18	0.00	0.00	0.23	0.00	0.00	0.28	0.83
003S013W15J001S/RW-1	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.02	0.06
003S013W15H005S/RW-10	0.00	0.00	0.80	0.00	0.00	0.45	0.00	0.00	0.49	0.00	0.00	0.42	2.16
003S013W14M002S/RW-3	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
003S013W14M003S/RW-6	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00	0.02	0.06

1450 - Downey, City of	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	1,472.91	1,371.05	1,384.74	1,311.43	1,244.32	929.09	1,042.65	963.62	911.16	849.87	1,046.20	1,275.04	13,802.08
002S012W34G001S/9	71.29	65.74	80.51	73.83	44.76	63.15	87.13	62.85	52.66	85.58	84.69	69.33	841.52
003S012W03F001S/11	325.97	288.54	259.51	0.00	0.01	0.00	189.48	124.78	1.33	0.00	0.00	201.70	1,391.32
003S012W04Q002S/23	61.17	89.62	83.86	55.05	42.32	10.85	20.87	34.83	32.63	5.67	20.89	36.67	494.43
003S012W03J001S/16	0.00	0.00	0.00	53.39	158.92	31.15	34.34	57.91	93.13	59.93	41.81	89.55	620.13
003S012W09G001S/29	88.63	78.59	77.38	63.63	17.74	15.96	10.91	18.10	10.20	20.10	59.47	80.46	541.17
002S012W28J006S/7	50.96	48.14	49.06	48.77	50.41	45.83	49.48	57.20	50.87	45.62	47.81	51.79	595.94
002S012W34P001S/14	69.14	41.87	53.40	62.18	66.14	54.39	68.06	54.54	65.59	66.64	61.58	62.77	726.30
002S012W33M001S/17	56.09	62.34	75.30	82.14	55.99	5.84	31.16	37.57	9.84	12.85	55.50	61.46	546.08
003S012W02L001S/15	107.29	102.89	102.34	33.14	24.76	26.36	43.97	7.85	23.45	24.41	17.21	56.31	569.98

Appendix A - Groundwater Extractions Continued

1450 - Downey, City of	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	1,472.91	1,371.05	1,384.74	1,311.43	1,244.32	929.09	1,042.65	963.62	911.16	849.87	1,046.20	1,275.04	13,802.08
003S012W09B001S/25	51.78	28.34	26.14	39.84	38.18	29.26	35.31	50.71	42.30	45.99	72.36	39.85	500.06
003S012W03M001S/19	64.73	67.21	67.98	50.20	27.32	26.27	28.05	24.56	28.32	27.67	37.67	48.66	498.64
003S012W10N003S/30	42.36	35.85	27.78	34.54	25.82	4.70	6.62	10.89	14.02	16.24	20.09	11.85	250.76
002S012W28Q001S/8	101.31	90.16	92.79	75.07	92.78	66.64	71.58	80.38	94.07	72.98	64.62	87.11	989.49
003S012W04D002S/18	28.48	56.44	66.17	53.46	10.35	9.59	9.97	10.43	26.74	29.61	52.65	24.42	378.31
002S012W27H001S/2	165.90	143.15	147.26	146.87	142.97	129.30	97.74	70.76	137.54	131.82	129.55	141.68	1,584.54
002S012W27R002S/4	0.00	2.17	1.38	397.74	407.84	365.94	173.08	134.87	213.01	185.59	178.77	193.23	2,253.62
003S012W02H004S/12	187.81	170.00	173.88	41.58	38.01	43.86	84.90	125.39	15.46	19.17	101.53	18.20	1,019.79

1745 - Furr, Nancy J.	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.02	0.08
003S012W21G005S/1	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.00	0.02	0.08

1843 - Golden State Water Company	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	1,842.16	1,916.01	1,732.47	1,772.02	1,643.24	1,549.51	1,558.25	1,474.25	1,468.41	1,466.95	1,808.03	1,832.32	20,063.62
003S013W04N001S/BEL03	106.18	126.02	117.07	114.94	116.95	117.11	117.88	107.95	117.45	111.71	126.85	124.00	1,404.11
003S013W10L004S/WLBK3	59.47	64.52	39.97	39.76	42.01	32.90	33.81	33.18	35.09	35.93	41.43	43.11	501.18
002S012W30G003S/WATSON1	58.50	45.76	63.96	53.06	40.87	22.50	20.28	32.75	40.14	40.53	34.57	23.68	476.60
003S011W18G006S/Dace #2	151.64	130.51	102.56	124.83	114.60	105.36	104.66	118.76	127.45	129.73	134.52	127.79	1,472.41
003S011W07E001S/PIONEER1	5.04	72.04	70.99	66.94	64.65	52.45	57.86	40.56	39.42	4.62	38.10	50.06	562.73
002S013W28G002S/MI001	69.15	57.18	53.27	43.95	46.77	46.65	43.78	16.59	29.54	14.82	20.86	6.86	449.42
002S013W24Q004S/OTIS #3	69.59	79.80	46.19	62.39	75.59	70.47	71.89	70.72	71.76	60.72	64.13	72.38	815.63
002S013W23R002S/Bissel 3	153.90	141.67	142.73	136.26	108.32	116.47	121.92	95.84	93.53	111.89	137.08	127.34	1,486.95
004S011W07L005S/CEN06	127.88	130.04	115.84	118.39	104.81	95.48	88.43	94.72	97.66	116.08	123.40	103.68	1,316.41
003S012W25Q003S/ROS02	103.43	111.01	92.14	108.12	106.64	110.90	102.73	76.35	2.43	2.52	64.06	103.63	983.96

Appendix A - Groundwater Extractions Continued

1843 - Golden State Water Company	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	1,842.16	1,916.01	1,732.47	1,772.02	1,643.24	1,549.51	1,558.25	1,474.25	1,468.41	1,466.95	1,808.03	1,832.32	20,063.62
002S013W21K007S/CONVERSE2	81.34	75.05	72.33	74.58	72.38	75.25	73.05	68.76	73.83	72.16	73.77	71.45	883.95
003S013W10L002S/WLBK1	19.88	13.79	36.27	36.27	28.27	30.49	30.35	29.81	31.69	32.51	37.43	39.12	365.88
002S012W29A004S/GAGE2	0.18	19.38	20.62	12.92	2.26	0.44	0.58	9.26	7.34	3.54	22.15	37.18	135.85
003S012W13B004S/IMPERIAL3	0.09	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15
002S013W27E003S/NA003	58.96	55.51	56.57	54.52	52.90	51.54	54.93	50.08	50.70	46.43	49.92	45.33	627.39
004S011W07L006S/CEN07	119.57	129.89	107.92	113.51	104.73	90.87	98.71	87.95	96.29	46.40	77.83	124.72	1,198.39
003S012W17A002S/MCK03	70.95	72.14	67.28	67.14	60.07	51.31	55.29	52.67	55.58	57.48	67.45	70.27	747.63
004S011W18F002S/Juan04	22.18	21.31	10.82	5.53	2.75	0.55	1.60	1.56	1.97	21.85	16.63	7.98	114.73
002S013W28G001S/MI003	65.60	47.73	63.04	30.77	15.83	6.34	3.30	53.48	63.86	51.94	60.41	31.18	493.48
003S012W07Q005S/CTY01	0.00	0.06	0.05	0.06	0.03	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.24
002S012W28N005S/Clara #2	140.52	138.69	133.23	136.19	132.14	138.09	138.49	130.65	137.68	131.40	136.59	134.84	1,628.51
003S013W04N004S/BEL04	140.16	142.65	131.98	128.76	131.83	131.62	133.16	123.43	133.58	129.96	135.39	137.98	1,600.50
002S013W21K004S/CONVERSE1	38.89	42.59	60.35	31.11	23.74	20.48	23.76	18.54	33.23	26.63	35.67	35.79	390.78
003S012W13A002S/IMPERIAL2	0.14	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
002S013W21E001S/G0004	0.85	60.43	2.51	94.43	92.60	92.07	92.27	74.98	43.67	92.25	95.50	91.38	832.94
003S012W12A002S/PIONEER3	2.14	62.42	46.31	36.07	25.23	9.20	11.38	17.06	13.60	40.50	53.95	61.80	379.66
002S013W28G003S/MI002	81.13	75.19	74.68	79.22	76.78	80.69	77.59	68.10	70.19	63.54	77.02	85.76	909.89
003S012W36B001S/ROS01	91.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.16	82.26	74.50	269.68
004S011W07H002S/HAW01	3.04	0.63	3.66	2.30	0.49	0.28	0.51	0.50	0.73	0.65	1.06	0.51	14.36

2378 - Huntington Park, City of	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	265.74	254.04	237.87	239.23	227.72	225.02	221.85	226.63	221.61	214.66	228.87	235.04	2,798.28
002S013W23J004S/18	134.60	132.16	125.82	125.73	122.05	129.62	122.34	115.70	117.39	115.25	118.75	118.85	1,478.26
002S013W23D006S/17	0.75	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.02
002S013W23H001S/14	35.08	27.67	31.66	21.11	22.28	12.14	17.64	28.00	20.87	26.03	27.17	29.37	299.02

Appendix A - Groundwater Extractions Continued

2378 - Huntington Park, City of	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	265.74	254.04	237.87	239.23	227.72	225.02	221.85	226.63	221.61	214.66	228.87	235.04	2,798.28
002S013W25Q001S/12	95.31	93.94	80.39	92.39	83.39	83.26	81.87	82.93	83.35	73.38	82.95	86.82	1,019.98

2749 - La Habra Heights County Water District	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	336.80	340.25	300.48	301.45	217.57	102.21	135.90	183.24	140.78	155.21	266.06	298.57	2,778.52
002S011W19F001S/8	17.15	44.59	57.66	51.14	59.03	37.95	49.68	65.85	36.13	22.15	12.94	18.29	472.56
002S011W19P002S/10	123.43	117.63	108.55	117.83	52.06	7.34	31.16	86.42	54.55	66.82	177.96	173.81	1,117.56
002S011W19M001S/9	59.30	57.91	54.82	55.20	51.93	41.68	45.95	0.00	2.50	45.09	52.67	42.34	509.39
002S011W19P003S/11	136.92	120.12	79.45	77.28	54.55	15.24	9.11	30.97	47.60	21.15	22.49	64.13	679.01

2770 - Lakewood, City of Water Department	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	679.98	618.79	698.30	617.46	564.10	392.29	465.97	499.19	442.32	478.15	619.58	648.45	6,724.58
004S012W10H003S/LK008	37.37	13.56	63.31	77.54	73.37	82.34	81.80	76.16	48.47	47.03	79.22	77.17	757.34
004S012W05J001S/LK022	19.51	19.70	21.75	15.94	13.80	12.99	20.80	10.65	2.25	3.08	5.72	1.48	147.67
004S012W03A002S/LK015A	151.39	134.63	142.63	66.28	106.51	39.00	31.18	37.57	173.72	159.39	161.51	160.01	1,363.82
004S012W10G001S/LK004	43.39	41.29	45.66	41.30	20.90	27.31	52.01	32.46	31.81	31.06	27.14	28.52	422.85
004S012W03H001S/LK017	111.60	110.81	102.63	113.83	103.52	11.89	69.66	40.93	35.44	68.63	47.71	77.84	894.49
003S012W34F001S/LK018	69.62	65.86	68.07	58.75	38.49	60.85	48.21	40.10	27.64	31.99	37.12	25.90	572.60
003S012W33A007S/LK002A	46.29	45.91	46.12	49.22	30.06	5.86	10.91	38.16	21.79	18.19	26.70	28.03	367.24
004S012W10H004S/LK027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.58	0.00	54.07	143.62	163.90	452.17
004S012W02F002S/LK013A	100.45	90.77	105.32	102.09	85.68	62.94	70.98	54.40	36.96	0.00	0.00	0.00	709.59
004S012W10H001S/LK010	94.55	90.59	98.46	89.84	89.50	87.72	78.74	78.02	63.22	62.37	86.49	81.00	1,000.50
004S011W07M001S/LK006	5.81	5.67	4.35	2.67	2.27	1.39	1.68	0.16	1.02	2.34	4.35	4.60	36.31

Appendix A - Groundwater Extractions Continued

3780 - Liberty Utilities Corporation	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	804.81	808.12	772.87	807.06	645.18	598.36	610.17	603.70	580.26	390.96	457.74	463.40	7,542.63
003S013W13F004S/4B	55.02	58.99	70.70	52.07	50.23	44.38	49.62	53.02	52.71	52.34	63.59	63.24	665.91
003S012W14F001S/28B	140.77	139.78	134.86	138.05	0.44	0.02	0.00	0.00	0.00	0.02	0.00	0.00	553.94
003S013W25F004S/9D	87.87	75.79	50.55	80.23	72.38	68.27	69.54	62.50	69.44	76.39	81.45	82.16	876.57
003S012W11K006S/41A	101.02	101.14	98.84	97.60	102.19	87.94	89.33	100.35	75.63	0.13	0.03	0.00	854.20
003S013W09H001S/19C	198.95	209.14	210.66	228.79	204.47	182.43	193.32	189.09	200.18	205.87	249.65	251.82	2,524.37
003S012W14J001S/46C	144.87	136.31	142.47	145.72	141.64	135.89	144.09	135.09	119.78	0.01	0.01	0.01	1,245.89
003S012W16H001S/40D	76.31	77.89	63.69	64.23	73.76	67.11	63.26	63.55	62.01	56.20	62.87	66.17	797.05
003S013W16K002S/12C	0.00	9.08	1.10	0.37	0.07	12.32	1.01	0.10	0.51	0.00	0.14	0.00	24.70

2884 - Lincoln Memorial Park Inc	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	3.02	2.54	1.82	1.85	0.22	0.05	0.21	0.00	0.59	0.23	1.60	2.00	14.13
003S013W28F001S/	3.02	2.54	1.82	1.85	0.22	0.05	0.21	0.00	0.59	0.23	1.60	2.00	14.13

2890 - Little Lake Cemetery District	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
003S011W06N001S/1	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02

2910 - Long Beach, City of	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	2,699.31	2,786.28	2,921.33	2,961.98	1,886.33	2,409.12	2,240.23	1,229.79	0.00	20.23	2,234.54	2,817.86	24,207.00
004S012W06J002S/NLB11	39.50	36.91	33.86	33.94	20.18	34.82	37.62	21.70	0.00	0.36	38.61	33.92	331.42
004S012W23C001S/WIL1A	76.74	48.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	124.79
004S/12W-13Q001S/COM23	0.09	0.06	0.00	0.00	0.06	38.26	43.48	0.00	0.00	0.00	0.00	0.00	81.95
004S012W15N001S/COM25	121.54	117.36	109.91	111.49	69.49	129.47	125.79	25.74	0.00	0.00	79.90	129.44	1,020.13
004S012W16R001S/CIT08	11.88	11.58	10.87	11.16	10.23	0.01	1.16	8.09	0.00	0.00	2.87	10.34	78.19
004S012W10H004S/27	266.54	242.24	270.14	216.37	231.23	245.34	201.67	0.00	0.00	0.00	0.00	0.00	1,673.53

Appendix A - Groundwater Extractions Continued

2910 - Long Beach, City of	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	2,699.31	2,786.28	2,921.33	2,961.98	1,886.33	2,409.12	2,240.23	1,229.79	0.00	20.23	2,234.54	2,817.86	24,207.00
004S012W28H012S/ALA13	28.72	27.33	25.57	25.74	17.45	5.78	2.96	6.26	0.00	0.00	38.17	35.47	213.45
004S012W14A002S/COM10	90.06	89.24	37.71	22.92	19.72	0.00	9.71	0.00	0.00	5.12	93.13	92.78	460.39
004S012W20K001S/CIT10	358.77	352.45	341.77	354.13	226.70	370.28	327.89	126.66	0.00	0.00	324.55	365.10	3,148.30
004S012W17E001S/DEV09	84.62	81.67	79.30	80.41	50.18	80.93	93.68	61.91	0.00	0.00	117.05	105.62	835.37
004S012W15B003S/COM15	177.04	178.04	140.77	128.05	73.60	121.36	134.62	108.47	0.00	0.00	156.64	123.89	1,342.48
004S/12W-13F002S/COM21	157.75	155.38	145.29	152.46	45.72	0.00	15.89	95.20	0.00	0.00	101.27	154.00	1,022.96
004S012W16A001S/COM24	141.30	140.01	134.43	138.69	71.58	0.00	13.08	30.17	0.00	0.00	94.69	151.64	915.59
004S012W13G001S/1	1.54	1.48	1.85	2.09	1.02	0.00	0.00	0.00	0.00	0.00	1.26	2.50	11.74
004S012W14B002S/COM17	84.70	82.76	78.67	81.26	43.75	87.93	88.29	44.15	0.00	4.49	84.77	79.03	759.80
004S012W10H003S/8	40.26	63.76	22.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	126.88
004S012W28H001S/ALA9	39.33	36.32	31.56	30.96	21.35	37.92	38.16	7.59	0.00	0.00	34.94	49.59	327.72
004S012W20G001S/DEV05	21.14	20.40	19.33	19.79	12.79	20.76	21.40	12.86	0.00	0.00	22.68	18.15	189.30
004S012W14D004S/COM14	255.52	254.45	244.24	254.16	141.36	261.25	247.89	0.04	0.00	2.47	307.06	269.93	2,238.37
004S012W08M001S/NLB12	72.31	331.34	427.72	429.25	267.99	441.67	326.79	183.50	0.00	1.02	321.91	445.54	3,249.04
004S012W24M008S/WIS1A	133.52	9.10	114.43	136.66	41.49	4.27	0.82	96.44	0.00	0.00	60.33	121.68	718.74
004S012W15A001S/COM16	177.07	173.07	162.08	163.44	92.40	160.08	158.11	61.61	0.00	0.00	0.04	18.24	1,166.14
004S012W28H006S/ALA8	72.41	70.67	66.77	68.27	35.81	66.68	40.38	14.05	0.00	0.00	54.00	78.76	567.80
004S012W03A002S/15A	0.00	0.00	0.00	85.01	49.17	75.47	120.67	137.29	0.00	0.00	0.00	0.00	467.61
004S012W13H001S/COM20	0.00	21.96	226.05	235.45	192.84	133.31	0.06	0.20	0.00	2.46	99.78	241.37	1,153.48
004S012W06K001S/NLB04	21.35	19.73	17.00	16.59	3.35	0.00	0.00	0.00	0.00	0.00	0.00	8.97	86.99
004S012W14A004S/COM18	66.06	64.72	61.59	64.95	28.97	0.00	40.32	45.44	0.00	4.31	74.78	74.26	525.40
004S012W21M007S/CIT7A	159.55	156.20	117.56	98.74	117.90	93.53	149.79	142.42	0.00	0.00	126.11	207.64	1,369.44

Appendix A - Groundwater Extractions Continued

2930 - Los Angeles County Rancho Los Amigos	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	22.56	24.18	17.86	22.98	14.68	13.69	13.44	15.73	12.54	17.46	18.97	24.50	218.59
003S012W05P001S/DW002	22.45	23.55	17.86	22.96	14.68	12.88	12.72	15.73	12.54	17.46	18.74	24.50	216.07
003S012W05P003S/DW001	0.11	0.63	0.00	0.02	0.00	0.81	0.72	0.00	0.00	0.00	0.23	0.00	2.52

2920 - Los Angeles, City of Dept of Water and Power	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	0.00	0.00	1.75	0.27	0.00	1.74	0.39	0.31	2.28	0.07	0.33	2.62	9.76
002S014W23H014S/138IL	0.00	0.00	0.79	0.16	0.00	0.86	0.19	0.20	1.31	0.04	0.21	1.37	5.13
/MM5	0.00	0.00	0.96	0.11	0.00	0.88	0.20	0.11	0.97	0.03	0.12	1.25	4.63

3010 - Lunday-Thagard Oil Company	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	7.73	7.64	7.45	7.57	7.02	7.18	3.97	6.00	6.90	7.16	6.90	7.40	82.92
003S012W05D005S/SLY	7.73	7.64	7.45	7.57	7.02	7.18	3.97	6.00	6.90	7.16	6.90	7.40	82.92

3080 - Lynwood Park Mutual Water Company	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	18.42	17.65	15.43	16.17	11.19	8.27	12.98	3.07	4.47	1.05	2.57	3.18	114.45
003S013W15H001S/MONA	9.00	8.90	6.90	9.80	6.50	4.50	9.20	0.40	0.80	0.30	0.80	1.00	58.10
003S013W10R008S/NW25	4.79	5.43	4.77	3.49	0.50	0.24	0.25	0.08	0.09	0.06	0.07	0.05	19.82
003S013W10R009S/SOUTH	4.63	3.32	3.76	2.88	4.19	3.53	3.53	2.59	3.58	0.69	1.70	2.13	36.53

3060 - Lynwood, City of	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	457.81	526.63	468.31	459.43	414.72	381.07	380.32	383.40	430.70	373.32	447.13	488.82	5,211.66
003S013W12E004S/8	56.56	116.30	73.15	61.56	40.97	12.47	28.80	36.71	48.73	50.25	69.87	85.84	681.21
003S013W10K001S/19	253.22	251.85	244.85	251.66	243.11	252.30	250.01	233.24	264.19	232.19	233.52	241.25	2,951.39
003S013W12J001S/5	46.78	46.38	44.94	43.44	39.76	35.60	20.69	32.08	31.68	15.68	46.15	49.70	452.88
003S013W11E001S/11	0.00	0.00	0.00	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51	1.18
003S013W13D001S/9	101.25	112.10	105.37	102.10	90.88	80.70	80.82	81.37	86.10	75.20	97.59	111.52	1,125.00

Appendix A - Groundwater Extractions Continued

3170 - Maywood Mutual Water Company No. 1	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	60.23	53.46	69.31	54.70	57.25	50.59	52.96	48.46	49.27	55.99	55.95	51.34	659.51
002S013W24F001S/3	1.97	0.00	2.43	2.19	3.08	0.00	3.40	0.00	1.09	3.00	18.94	15.81	51.91
002S013W24B002S/4	58.26	53.46	66.88	52.51	54.17	50.59	49.56	48.46	48.18	52.99	37.01	35.53	607.60

3180 - Maywood Mutual Water Company No. 2	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	62.82	23.15	59.98	81.52	59.23	76.28	79.58	60.35	59.40	85.62	92.29	89.34	829.56
002S012W18M001S/52ST	54.73	14.65	52.87	77.55	53.11	63.46	70.67	53.57	51.28	77.35	83.60	80.83	733.67
002S013W13M002S/MAYAV	8.09	8.50	7.11	3.97	6.12	12.82	8.91	6.78	8.12	8.27	8.69	8.51	95.89

3190 - Maywood Mutual Water Company No. 3	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	124.91	116.11	111.42	114.57	107.76	94.36	98.84	95.27	106.88	105.25	120.10	121.84	1,317.31
002S012W19J003S/Well 4	22.92	16.39	15.29	14.84	11.81	12.23	14.32	12.30	12.81	12.84	13.27	13.46	172.48
002S012W19C003S/7	52.30	60.74	53.89	55.64	53.06	48.25	46.80	47.63	56.21	50.78	57.55	52.17	635.02
002S012W19M004S/8	49.69	38.98	42.24	44.09	42.89	33.88	37.72	35.34	37.86	41.63	49.28	56.21	509.81

3360 - Montebello Land and Water Company	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	279.85	286.35	268.34	262.95	239.76	214.70	217.11	223.73	212.21	187.90	224.60	239.07	2,856.57
002S012W12M002S/7	36.57	57.52	43.33	34.06	25.53	32.70	31.64	12.47	31.02	46.54	119.40	119.06	589.84
002S012W11G001S/14	68.14	70.66	55.10	56.96	52.23	53.99	51.64	60.91	50.81	30.82	19.59	26.99	597.84
002S012W12E007S/8A	36.04	17.11	34.92	38.29	38.83	30.09	23.79	39.83	37.52	22.80	21.05	20.19	360.46
002S012W12E006S/10	50.78	46.99	37.70	35.03	36.69	32.76	35.46	38.07	24.02	22.09	19.64	20.85	400.08
002S012W12E008S/12	38.05	39.51	47.84	43.67	39.25	31.76	46.68	38.30	31.50	25.86	18.44	24.12	424.98
002S012W11R004S/11A	26.37	20.84	21.92	25.84	15.96	6.75	0.00	7.62	17.35	18.63	9.97	12.42	183.67
002S012W12E005S/9	23.90	33.72	27.53	29.10	31.27	26.65	27.90	26.53	19.99	21.16	16.51	15.44	299.70

Appendix A - Groundwater Extractions Continued

3351 - Montebello, City of	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	15.99	20.21	7.87	21.22	12.25	11.80	10.80	5.66	17.74	10.44	8.93	0.00	142.91
002S012W22J002S/MONT1	15.99	20.21	7.87	21.22	12.25	11.80	10.80	5.66	17.74	10.44	8.93	0.00	142.91

3517 - Newark Group, Inc., The	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	14.80	12.59	9.12	13.37	11.68	8.16	11.19	9.22	11.39	13.74	10.56	11.07	136.89
002S012W20E001S/1	0.00	0.00	3.93	13.33	11.68	8.16	11.19	9.22	11.39	12.59	10.56	11.07	103.12
002S012W20M002S/2	14.80	12.59	5.19	0.04	0.00	0.00	0.00	0.00	0.00	1.15	0.00	0.00	33.77

3546 - Northrop Grumman/Omega Chemical	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	0.13	0.49	0.41	0.39	0.35	0.40	0.45	0.41	0.38	0.40	0.33	0.44	4.58
/DPE-9	0.07	0.21	0.19	0.18	0.16	0.18	0.20	0.19	0.15	0.15	0.23	0.21	2.12
002S011W28E005S/EW-5	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.11
/DPE-3	0.03	0.09	0.08	0.08	0.07	0.08	0.10	0.10	0.10	0.14	0.00	0.04	0.91
/DPE-8	0.01	0.05	0.04	0.04	0.03	0.04	0.04	0.03	0.03	0.02	0.01	0.06	0.40
002S011W28E004S/EW-4	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
/DPE-5	0.02	0.07	0.06	0.05	0.05	0.06	0.06	0.05	0.05	0.05	0.05	0.04	0.61
002S011W28E003S/EW-3	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
/DPE-4	0.00	0.04	0.03	0.03	0.03	0.03	0.04	0.03	0.04	0.03	0.03	0.08	0.41

3550 - Norwalk, City of	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	70.62	64.45	68.23	55.44	29.49	27.22	53.54	56.96	68.77	70.32	81.78	60.11	706.93
003S012W13L001S/LEF	2.16	0.32	0.44	0.62	0.19	0.29	0.08	0.00	0.00	0.00	0.21	2.40	6.71
003S011W18K003S/10	34.40	27.00	32.00	21.30	0.00	0.00	25.10	29.20	40.10	41.00	44.00	45.70	339.80
003S012W13Q001S/TAD	34.06	37.13	35.79	33.52	29.30	26.93	28.36	27.76	28.67	29.32	37.57	12.01	360.42

Appendix A - Groundwater Extractions Continued

3640 - Orchard Dale Water District	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	194.19	202.70	185.27	174.62	148.26	118.73	119.73	127.83	127.67	131.57	177.27	192.06	1,899.90
002S011W19M001S/9	34.19	34.50	33.80	31.97	35.38	48.42	40.48	0.00	2.27	38.22	35.09	27.23	361.55
002S011W19F001S/8	9.89	26.57	35.55	29.63	40.23	44.08	43.77	45.94	32.77	18.78	8.62	11.76	347.59
002S011W19P003S/11	78.94	71.56	48.99	44.77	37.18	17.70	8.02	21.60	43.16	17.92	14.98	41.26	446.08
002S011W19P002S/10	71.17	70.07	66.93	68.25	35.47	8.53	27.46	60.29	49.47	56.65	118.58	111.81	744.68

3760 - Paramount Unified School District	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	3.09	0.85	1.61	1.32	0.48	0.00	0.07	0.37	0.17	0.43	0.86	1.18	10.43
003S012W33F002S/COKE	3.09	0.85	1.61	1.32	0.48	0.00	0.07	0.37	0.17	0.43	0.86	1.18	10.43

3755 - Paramount, City of	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	498.47	523.84	504.98	513.22	474.43	478.49	433.69	400.33	381.69	363.94	404.02	387.50	5,364.60
003S012W19E005S/15	253.20	243.17	233.38	239.74	223.92	229.55	240.65	232.85	243.84	242.45	265.34	257.21	2,905.30
003S012W28D001S/14	243.74	274.00	268.82	264.78	246.97	246.97	187.89	129.45	0.40	0.00	0.00	0.00	1,863.02
003S012W20F008S/13	1.53	6.67	2.78	8.70	3.54	1.97	5.15	38.03	137.45	121.49	138.68	130.29	596.28

3853 - Pico Rivera, City of	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	434.40	446.36	406.51	406.83	341.24	263.33	284.86	309.11	302.01	301.60	408.66	420.10	4,325.01
002S012W12A005S/W2	67.92	87.87	56.58	115.21	65.50	95.06	104.30	96.68	56.10	9.43	39.36	26.13	820.14
002S012W12A001S/W1	97.28	76.06	95.53	59.71	87.94	50.17	52.06	50.96	42.02	6.54	90.34	130.51	839.12
002S011W05P001S/GOLF1	9.39	7.99	7.82	6.09	3.68	2.38	2.95	5.09	4.40	4.85	5.85	6.99	67.48
002S012W26E003S/W6	12.78	13.15	10.08	11.23	4.02	5.10	9.40	13.07	6.61	9.88	7.80	8.61	111.73
002S012W25G002S/W11	2.66	6.55	6.38	1.38	6.77	4.51	2.20	4.15	12.13	10.31	7.35	4.49	68.88
002S012W26D007S/W5	22.57	22.55	14.23	14.33	8.29	18.57	31.07	16.30	40.10	44.40	16.26	0.07	248.74
002S012W25G001S/W12	74.94	81.09	76.43	66.61	37.08	5.47	0.38	1.76	1.99	71.03	101.30	94.16	612.24
002S012W23B004S/W3	3.88	4.69	5.67	3.97	3.28	4.94	3.31	3.61	2.70	4.66	3.80	14.17	58.68

Appendix A - Groundwater Extractions Continued

3853 - Pico Rivera, City of	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	434.40	446.36	406.51	406.83	341.24	263.33	284.86	309.11	302.01	301.60	408.66	420.10	4,325.01
002S012W23B008S/W4	142.98	146.41	133.79	128.30	124.68	77.13	79.19	117.49	135.96	140.50	136.60	134.97	1,498.00

3850 - Pico Water District	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	266.99	276.01	258.64	249.81	214.34	175.04	182.35	188.34	186.59	191.27	250.94	263.56	2,703.88
002S011W07P002S/10	0.00	0.00	18.52	127.73	111.31	117.32	120.53	112.39	115.84	116.14	135.97	125.64	1,101.39
002S012W24E007S/5A	114.27	118.97	95.98	64.03	44.83	16.04	12.78	12.00	13.80	27.57	43.53	52.91	616.71
002S012W13L005S/8	150.08	149.46	125.98	57.32	56.07	41.34	48.55	61.77	55.46	47.41	59.50	80.43	933.37
002S011W18B008S/4A	2.64	7.58	18.16	0.73	2.13	0.34	0.49	2.18	1.49	0.15	11.94	4.58	52.41

4115 - Rockview Dairies, Inc.	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	14.02	13.09	13.51	14.12	12.06	15.09	14.79	14.67	13.59	12.17	12.40	11.79	161.30
003S012W05C008S/NEW2	14.02	13.09	13.51	14.12	12.06	15.09	14.79	14.67	13.59	12.17	12.40	11.79	161.30

4150 - Roman Catholic Archbishop of Los Angeles	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	35.17	31.95	35.81	22.57	4.18	2.50	18.34	16.83	6.41	21.54	26.76	27.42	249.48
002S012W06K010S/Service Yard #4	35.17	31.95	35.81	22.57	4.18	2.50	18.34	16.83	6.41	21.54	26.76	27.42	249.48

2623 - SFPP L.P.	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	0.00	0.00	2.51	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.95	3.72
009S099W99A099S/REMED	0.00	0.00	2.51	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.95	3.72

4330 - San Gabriel Valley Water Company	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	102.51	155.18	157.27	134.62	117.97	22.10	2.21	1.34	1.87	1.66	1.69	2.63	701.05
002S011W18Q001S/W-1C	0.70	35.16	0.96	42.16	0.45	0.67	0.43	0.28	0.39	0.34	0.53	0.75	82.82
002S011W19F007S/W-6C	69.79	115.20	154.57	89.66	115.50	20.36	1.08	0.46	0.66	0.60	0.56	1.72	570.16

Appendix A - Groundwater Extractions Continued

4330 - San Gabriel Valley Water Company	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	102.51	155.18	157.27	134.62	117.97	22.10	2.21	1.34	1.87	1.66	1.69	2.63	701.05
002S011W19F008S/W-6D	32.02	4.82	1.74	2.80	2.02	1.07	0.70	0.60	0.82	0.72	0.60	0.16	48.07

4335 - Santa Fe Springs, City of	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	270.22	267.53	260.12	274.21	245.46	177.34	176.44	234.98	217.71	214.96	279.96	200.22	2,819.15
003S011W21B004S/12	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
002S011W07D010S/CB-1	148.05	146.67	142.29	149.10	132.61	92.23	92.77	125.44	116.76	114.34	148.20	65.64	1,474.10
002S011W07C005S/CB-2	122.17	120.86	117.83	125.11	112.79	85.11	83.67	109.54	100.95	100.62	131.76	134.58	1,344.99

4345 - Sativa L A County Water District	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	43.16	16.74	11.33	4.11	5.00	0.00	4.83	0.14	0.80	1.62	0.06	3.65	91.44
003S013W15M005S/5	25.95	0.00	0.00	0.00	1.26	0.00	0.00	0.00	0.00	0.00	0.00	1.47	28.68
003S013W15G001S/3	17.21	16.74	11.33	4.11	3.74	0.00	4.83	0.14	0.80	1.62	0.06	2.18	62.76

4349 - Scantlebury, Robert P.	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	0.00	0.00	0.24	0.00	0.00	0.11	0.00	0.00	0.05	0.00	0.00	0.19	0.59
003S011W07N001S/1	0.00	0.00	0.24	0.00	0.00	0.11	0.00	0.00	0.05	0.00	0.00	0.19	0.59

4378 - September Properties LLC	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	0.08	0.08	0.09	0.18	0.08	0.02	0.03	0.05	0.05	0.07	0.02	0.19	0.94
003S012W35A006S/2	0.08	0.08	0.09	0.18	0.08	0.02	0.03	0.05	0.05	0.07	0.02	0.19	0.94

4450 - Signal Hill, City of	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	186.22	189.92	182.59	156.04	183.72	128.67	137.26	137.85	132.01	132.81	161.11	179.67	1,907.87
003S012W31B001S/7	106.22	109.92	106.59	101.04	75.72	54.67	55.26	60.85	55.01	52.81	82.11	106.67	966.87
004S012W20M001S/9	80.00	80.00	76.00	55.00	108.00	74.00	82.00	77.00	77.00	80.00	79.00	73.00	941.00

Appendix A - Groundwater Extractions Continued

4590 - South Gate, City of	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	763.81	825.31	726.58	609.54	672.08	600.97	605.67	632.68	659.03	590.79	731.76	716.78	8,135.00
002S013W34Q003S/26	5.63	14.37	5.24	7.56	8.48	11.08	23.25	7.52	8.76	18.23	16.99	22.87	149.98
003S012W06B003S/23	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.12	-0.05	0.00	0.00	0.00	0.13
002S013W34A003S/29	223.45	248.63	169.92	187.31	220.67	203.35	190.57	167.87	198.08	166.18	205.12	200.38	2,381.53
002S013W35A002S/28	0.00	0.00	0.00	0.00	0.00	0.00	2.80	37.86	67.65	102.72	185.03	206.36	602.42
003S012W06D001S/13	0.24	0.00	0.00	0.17	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.58
003S012W06D004S/19	77.89	64.33	87.74	49.86	63.84	26.01	36.58	58.82	40.06	12.21	11.90	0.00	529.24
002S012W31Q003S/24	153.91	175.43	85.15	145.70	167.77	173.17	166.71	155.72	159.93	159.28	171.95	149.10	1,863.82
003S012W06D003S/18	0.00	51.49	176.70	63.74	14.77	0.38	1.84	0.93	0.61	1.77	0.52	0.60	313.35
002S013W34R001S/27	147.99	159.70	152.51	130.52	141.89	156.27	144.43	141.35	139.59	115.91	139.14	136.71	1,706.01
003S012W06D002S/14	154.64	111.36	49.32	24.68	54.66	30.71	39.49	62.32	44.40	14.49	1.11	0.76	587.94

4540 - South Montebello Irrigation District	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	169.59	174.47	166.38	163.19	140.32	123.29	134.79	128.76	136.55	138.57	151.30	152.04	1,779.25
002S012W14B008S/3	31.93	19.85	18.08	24.23	18.17	26.93	22.47	21.73	26.86	34.14	48.43	53.31	346.13
002S012W22G002S/7	66.49	74.39	86.93	77.08	54.10	17.57	40.01	44.41	37.58	4.60	0.00	5.73	508.89
002S012W15J004S/6	45.01	64.15	48.22	41.47	43.73	57.74	51.33	43.57	48.48	65.71	48.68	53.77	611.86
002S012W13D007S/5	26.16	16.08	13.15	20.41	24.32	21.05	20.98	19.05	23.63	34.12	54.19	39.23	312.37

4549 - Southern California Edison Company	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	1.31	1.35	0.92	0.94	0.35	0.35	0.54	0.64	0.00	1.32	1.13	1.11	9.96
003S012W19G002S/ABILA	1.31	1.35	0.92	0.94	0.35	0.35	0.54	0.64	0.00	1.32	1.13	1.11	9.96

4300 - St John Bosco School	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	9.07	2.46	2.34	0.05	0.05	0.05	0.00	0.75	0.73	0.00	7.71	4.33	27.54
003S012W15K003S/15HP	9.07	2.46	2.34	0.05	0.05	0.05	0.00	0.75	0.73	0.00	7.71	4.33	27.54

Appendix A - Groundwater Extractions Continued

4810 - Suburban Water Systems	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	174.37	164.95	161.10	165.15	164.88	144.74	109.59	159.30	169.21	166.15	166.74	155.84	1,902.02
003S011W22L003S/409 W3	80.98	73.96	73.42	74.44	75.27	51.05	14.77	71.50	76.15	74.63	74.14	66.83	807.14
003S011W27L001S/410	93.39	90.99	87.68	90.71	89.61	93.69	94.82	87.80	93.06	91.52	92.60	89.01	1,094.88

4980 - Tract 180 Mutual Water Company	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	120.05	121.07	115.26	111.08	108.62	100.66	101.14	100.98	103.76	105.30	111.32	117.19	1,316.43
002S013W25H006S/6	60.67	61.02	58.73	56.70	54.63	50.42	50.79	51.55	52.03	52.63	55.18	58.62	662.97
002S013W25H008S/5	59.38	60.05	56.53	54.38	53.99	50.24	50.35	49.43	51.73	52.67	56.14	58.57	653.46

4990 - Tract 349 Mutual Water Company	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	59.97	60.45	57.32	57.12	52.48	49.37	50.64	51.83	52.54	54.62	58.67	57.56	662.57
002S012W31D001S/3	41.98	35.07	28.80	31.10	37.55	25.65	37.13	29.90	42.88	33.85	42.58	40.49	426.98
002S013W25C002S/2	17.99	25.38	28.52	26.02	14.93	23.72	13.51	21.93	9.66	20.77	16.09	17.07	235.59

5019 - Tucker, William M. & or Robertson, Bobby Ray Jr.	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.02	0.04	0.04	0.03	0.04	0.40
002S013W12P004S/BAND2	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.02	0.04	0.04	0.03	0.04	0.40

5460 - Vernon, City of	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	430.15	459.80	493.04	586.61	556.87	515.87	563.79	519.72	511.29	461.48	476.81	507.12	6,082.55
002S013W14H005S/19	158.46	165.58	142.03	140.28	136.80	100.20	145.09	141.88	127.96	122.10	131.81	124.89	1,637.08
002S013W10P005S/11	0.00	0.00	90.44	149.35	144.49	142.32	150.07	128.70	122.85	121.88	142.47	140.92	1,333.49
002S013W10P008S/16	59.79	95.02	89.15	90.30	85.24	84.49	79.40	70.57	70.69	62.88	8.11	54.84	850.48
002S013W11E004S/14	0.12	0.21	0.14	0.17	0.24	0.22	0.12	0.40	0.16	0.14	0.18	0.14	2.24
002S013W13H002S/20	128.88	121.11	110.09	128.52	119.06	118.66	117.93	116.69	126.97	113.16	129.42	121.81	1,452.30
002S013W11R004S/12	82.90	77.88	61.19	77.99	71.04	69.98	71.18	61.48	62.66	41.32	64.82	64.52	806.96

Appendix A - Groundwater Extractions Continued

5490 - Virginia Country Club	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	56.03	54.95	43.93	32.08	11.99	0.38	1.51	11.81	4.81	10.55	38.40	19.86	286.30
004S013W12E010S/VIR2	0.00	0.00	0.00	0.00	0.00	0.00	1.51	11.81	4.81	7.79	34.73	0.00	60.65
004S013W12M006S/TEX1	56.03	54.95	43.93	32.08	11.99	0.38	0.00	0.00	0.00	2.76	3.67	19.86	225.65

5610 - Walnut Park Mutual Water Company	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	102.47	103.77	97.04	96.81	89.37	82.02	82.09	90.17	80.29	89.27	105.56	108.64	1,127.50
002S013W27B020S/10	26.94	36.69	18.46	52.54	36.53	42.02	26.48	55.22	32.67	38.06	57.27	76.40	499.28
002S013W27B024S/12	75.53	67.08	78.58	44.27	52.84	40.00	46.33	33.50	45.86	50.31	47.45	29.36	611.11
002S013W27B022S/11	0.00	0.00	0.00	0.00	0.00	0.00	9.28	1.45	1.76	0.90	0.84	2.88	17.11

5670 - Whittier Union High School District	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	7.33	4.94	3.39	4.29	0.04	0.00	0.11	1.10	0.57	1.85	2.87	4.28	30.77
002S011W32J004S/SH550	7.33	4.94	3.39	4.29	0.04	0.00	0.11	1.10	0.57	1.85	2.87	4.28	30.77

5660 - Whittier, City of	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	534.88	505.64	471.98	466.59	440.90	407.30	448.29	491.66	455.68	451.12	522.94	419.77	5,616.75
002S011W07D010S/CB-1	150.58	146.45	135.37	129.62	131.42	163.58	166.63	135.26	156.15	158.06	132.13	54.98	1,660.23
002S011W05N004S/14	260.06	238.52	224.50	228.21	197.71	92.76	131.31	238.49	164.52	153.98	273.35	252.06	2,455.47
002S011W07C005S/CB-2	124.24	120.67	112.11	108.76	111.77	150.96	150.35	117.91	135.01	139.08	117.46	112.73	1,501.05

5800 - Yamamoto, George and Alice Acct.	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
SWN/Owner No.	0.03	0.05	0.04	0.03	0.01	0.00	0.06	0.00	0.00	0.05	0.06	0.04	0.37
003S012W29J002S/68TH	0.03	0.05	0.04	0.03	0.01	0.00	0.06	0.00	0.00	0.05	0.06	0.04	0.37

Appendix B

Successions of Allowed Pumping Allocations

as of

June 2020

Succession of Allowed Pumping Allocations

ABBOTT, J. P., INC	17.00	
SOLD TO PICO COUNTY WATER DISTRICT	-17.00	
TOTAL		0.00
ABC UNIFIED SCHOOL DISTRICT		
SUCCESSOR TO ARTESIA SCHOOL DISTRICT	41.00	
SUCCESSOR TO BECK AND THOMASON CONSTRUCTION CO	1.00	
SUCCESSOR TO BLOOMFIELD SCHOOL DISTRICT	32.00	
SUCCESSOR TO CARMENITA SCHOOL DISTRICT	7.00	
SUCCESSOR TO COTTON, HARRY LEE AND DORIS L	4.00	
SUCCESSOR TO KOOLHAAS, SIMON AND SOPHIE GRACE	7.00	
SUCCESSOR TO SUMIDA, KAZUO	2.00	
SUCCESSOR IN PART TO EXCELSIOR UNION HIGH SCHOOL DISTRICT	163.00	
SUCCESSOR IN PART TO FIKSE, ALFRED JR AND AGGIE	10.00	
SUCCESSOR IN PART TO VISSER BROTHERS	10.00	
CONDEMNED AND TRANSFERRED FROM CONTRERAS, R M	6.00	
CONDEMNED AND TRANSFERRED FROM JONES, HENRY S AND MADELYNE	1.00	
CONDEMNED AND TRANSFERRED FROM KAMPEN, FRITZ AND CLARE	11.00	
CONDEMNED AND TRANSFERRED FROM LONG, MELVIN L AND STELLA M	2.00	
CONDEMNED AND TRANSFERRED FROM RYLAARSDAM, SIMON AND MARY JANE	1.00	
TOTAL		
	298.00	
ABEX CORP		
(FORMERLY KNOWN AS AMERICAN BRAKE SHOE CO		
TRANSFERRED FROM AMERICAN BRAKE SHOE CO	42.00	
SOLD IN PART TO D-H INVESTORS	-25.88	
SOLD IN PART TO DOWNEY, CITY OF	-16.12	
TOTAL		0.00
ADAMS, CHARLES E	6.00	
(CORTY VAN DYKE, TENANT)		
(SEE ADDITIONAL LISTING BELOW FOR ADAMS, CHARLES E)		
COMBINED AND TRANSFERRED TO ADAMS, CHARLES E AND RHODA A	-6.00	
TOTAL		0.00
ADAMS, CHARLES E AND RHODA E	4.00	
COMBINED AND TRANSFERRED FROM ADAMS, CHARLES E	6.00	
SOLD TO CONTINENTAL TITLE CO	-10.00	
TOTAL		0.00
ADAMS, JULES H		
SUCCESSOR TO PACKERS MUTUAL WATER CO	34.00	
SOLD TO HAMM, THEO BREWING CO	-34.00	
TOTAL		0.00
A E REALTORS		
(SEE A E REALTY PARTNERS)		
A E REALTY PARTNERS		
(FORMERLY A E REALTORS)		
SUCCESSOR IN PART TO KAISER AETNA	7.00	
DEDICATED TO CERRITOS, CITY OF	-7.00	
TOTAL		0.00
AGAJANIAN, GEORGE E		
SUCCESSOR TO BOTH OF, WILLIAM AND ANTONETTE	6.00	
SOLD TO TITLE INSURANCE AND TRUST CO	-6.00	
TOTAL		0.00
AGUAYO, JUAN AND SALOME Y	1.00	
SOLD TO HORSESHOE CATTLE CO	-1.00	
TOTAL		0.00
AGUIAR DAIRY, INC	26.00	
SOLD TO CERRITOS, CITY OF	-26.00	
TOTAL		0.00
AIRFLOOR CO OF CALIFORNIA, INC	1.00	
SOLD TO SMITH, PECKHAM AND PECKHAM	-1.00	
TOTAL		0.00
ALBERS, J N AND NELLIE	78.00	
SUCCESSOR TO TEUNE, TEUNIS AND NELLIE	17.00	
SUCCESSOR TO WYBENGA, GERRIT AND RENA	8.00	
SOLD IN PART TO LARWIN CO	-8.00	
SOLD IN PART TO MAYWOOD MUTUAL WATER CO NO 3	-76.00	
SOLD IN PART TO RIPHAGEN, VERNON E AND HELEN R VIA BB, LTD	-2.00	
SOLD IN PART TO TEUNE, TEUNIS AND NELLIE	-17.00	
TOTAL		0.00
ALEWYN, JAKE J AND MRS JAKE J ALEWYN AKA NORMALIE MAY ALEWYN		
(SEE LISTING UNDER GAMBONI, VICTOR E)		
ALGER, TOM AND HILDA	7.00	
DEDICATED TO CERRITOS, CITY OF	-7.00	
TOTAL		0.00
ALVIS, CLARENCE M AND DORIS M	0.00	
TOTAL		0.00
AMERICAN BRAKE SHOE CO	42.00	
(NOW KNOWN AS ABEX CORP)		
TRANSFERRED TO ABEX CORP	-42.00	
TOTAL		0.00
AMERICAN PIPE AND CONSTRUCTION CO	150.00	
(NOW KNOWN AS AMERON PIPE PRODUCTS GROUP-SOUTHERN CALIFORNIA DIVISION)		
TRANSFERRED TO AMERON PIPE PRODUCTS GROUP-SOUTHERN CALIFORNIA DIVISION	-150.00	
TOTAL		0.00
AMERICAN TEXTILE MAINTENANCE COMPANY		
SUCCESSOR TO SOUTHERN SERVICE CO AND ENVIRONMENTALS, INC (12/10/2009)	65.00	
TOTAL		65.00
AMERON FABRICATION PRODUCTS		
SUCCESSOR TO AMERON PIPE PRODUCTS GROUP-SOUTHERN CALIFORNIA DIVISION	150.00	
SOLD TO DOMINGUEZ WATER CO	-150.00	
TOTAL		0.00
AMERON, PIPE PRODUCTS GROUP-SOUTHERN CALIFORNIA DIVISION		
(FORMERLY KNOWN AS AMERICAN PIPE AND CONSTRUCTION CO)		
TRANSFERRED FROM AMERICAN PIPE AND CONSTRUCTION CO	150.00	
SOLD TO AMERON FABRICATION PRODUCTS	-150.00	
TOTAL		0.00
ANACONDA AMERICAN BRASS CO		
(NOW KNOWN AS ARCO METALS CO, AMERICAN BRASS)		
ANGELES ABBEY MEMORIAL PARK, INC		
(FORMERLY KNOWN AS MAUSOLEUM PARK, INC AND SUN HOLDING CORP)		
TRANSFERRED FROM MAUSOLEUM PARK, INC AND SUN HOLDING CORP	4.00	
TOTAL		4.00
ANKER, GERRIT (SEE LISTING UNDER DE VRIES, AGNES)		
AQUA CAPITAL MANAGEMENT LP		
SUCCESSOR TO NATIONAL OFFSETS, INC.	257.00	
SUCCESSOR TO CONAGRA TRADE GROUP, INC.	358.00	
SUCCESSOR TO NI INDUSTRIES	138.00	
SUCCESSOR TO FILTROL CORPORATION	456.00	
SUCCESSOR IN PART TO NEWARK GROUP INC.	200.00	
SUCCESSOR TO SMITH REX M	24.00	
SUCCESSOR IN PART TO SMURFIT-STONE CONTAINER ENTERPRISES, INC. (6/19/2007)	1,057.00	
SUCCESSOR TO SMURFIT-STONE CONTAINER ENTERPRISES, INC. (5/28/2008)	1.00	
SUCCESSOR IN PART TO NEWARK GROUP INC.	200.00	
SUCCESSOR IN PART TO UNITED STATES GYPSUM COMPANY	900.00	
SUCCESSOR TO SEVEN-UP/RC BOTTLING COMPANY OF SOUTHERN CALIFORNIA, INC. (NOW KNOWN AS AMERICAN BOTTLING COMPANY, SUCCESSOR BY MERGER WITH DR. PEPPER BOTTLING COMPANY OF TEXAS) (10-19-2010)	69.00	
SUCCESSOR TO THE NEWARK GROUP, INC. (11-9-2011)	100.00	
SOLD TO PARK WATER COMPANY (1-9-2014)	-600.00	
SOLD TO LA HABRA HEIGHTS COUNTY WATER DISTRICT (5-1-14)	-50.00	
SOLD TO LOS ANGELES, CITY OF (12-18-14)	-1,500.00	
SOLD TO BELLFLOWER SOMERSET MUTUAL WATER COMPANY (07-01-15)	-100.00	
SOLD TO PUENTE BASIN WATER AGENCY (07-01-15)	-600.00	
SOLD TO MONTEBELLO LAND AND WATER COMPANY (07-01-15)	-100.00	
SOLD TO PARK WATER COMPANY (07-01-16)	-120.00	
SOLD TO LOS ANGELES, CITY OF (07-01-16)	-690.00	
TOTAL		0.00
ARCHDIOCESE OF LOS ANGELES EDUCATION AND WELFARE CORP	6.00	
COMBINED WITH AND TRANSFERRED TO THE ROMAN CATHOLIC ARCHBISHOP OF LOS ANGELES	-6.00	
TOTAL		0.00
ARCO METALS CO, AMERICAN BRASS		
(FORMERLY KNOWN AS ANACONDA AMERICAN BRASS CO)	0.00	
TOTAL		0.00
ARDEN-MAYFAIR, INC		
SUCCESSOR TO BUMA, DUKE AND MARTHA	6.00	
SUCCESSOR TO HAMSTRA, HENRY AND NELLY	26.00	
SUCCESSOR TO HARISHMENDY, ANTOINE AND CLAIRE	0.00	
SUCCESSOR TO SMITH, LESTER W AND DONALD E	16.00	
SUCCESSOR TO WISEMAN, FRED E AND GRAYCE ANNA	2.00	
SUCCESSOR IN PART TO BOERSMA, FRANK AND ANGIE	25.00	
SOLD TO TITLE INSURANCE AND TRUST CO	-75.00	
TOTAL		0.00
ARMSTRONG, GEORGE W AND RUTH H	22.00	
(ARMSTRONG POULTRY RANCH, TENANT)		
SOLD TO ARMSTRONG, ROCK H	-22.00	
TOTAL		0.00
ARMSTRONG, ROCK H		

SUCCESSOR TO ARMSTRONG, GEORGE W AND RUTH H	22.00	
SOLD TO INGLEWOOD, CITY OF	-22.00	
TOTAL		0.00
ARTESIA CEMETERY DISTRICT	24.00	
SOLD IN PART TO CERRITOS, CITY OF	-12.00	
TOTAL		12.00
ARTESIA, CITY OF	24.00	
TOTAL		24.00
ARTESIA MILLING CO		
(SEE LISTING UNDER ZUIDERVAART, DICK AND JANNA)		
ARTESIA REFORMED CHURCH		
SUCCESSOR TO KNORRINGA, SIMON	10.00	
(NOW KNOWN AS NEW LIFE COMMUNITY CHURCH)		
TRANSFERRED TO NEW LIFE COMMUNITY CHURCH	-10.00	
TOTAL		0.00
ARTESIA SCHOOL DISTRICT	41.00	
SOLD TO ABC UNIFIED SCHOOL DISTRICT	-41.00	
TOTAL		0.00
ARTHUR, ALLAN R AND EVAN C		
(FORMERLY KNOWN AS ARTHUR LAND CO, INC)		
TRANSFERRED FROM ARTHUR LAND CO, INC	10.00	
SOLD TO BOAND, HARRY JR, ET AL	-10.00	
TOTAL		0.00
ARTHUR LAND CO, INC	10.00	
(NOW KNOWN AS ARTHUR, ALLAN R AND EVAN C)		
TRANSFERRED TO ARTHUR, ALLAN R AND EVAN C	-10.00	
TOTAL		0.00
ARZOUMAN, CHARLES AND NVART	1.00	
TRANSFERRED TO TAUREK, MARY (1-17-2012)	-1.00	
TOTAL		0.00
ASHLAND CHEMICAL CO		
SUCCESSOR TO CATALIN CORP OF AMERICA	10.00	
SOLD TO BUTLER, THADDEUS L AND BARBARA A	-10.00	
ACCOUNT REACTIVATED IN 1989-90 WITH ZERO WATER RIGHT	0.00	
TOTAL		0.00
ASMUS, CONRAD E AND PHIL COOPER		
SUCCESSOR IN PART TO KALUSTIAN, HAGOP	2.00	
SOLD TO HARRIS, GERALD E	-2.00	
TOTAL		0.00
ASSOCIATED BEVERAGE CO, INC		
SUCCESSOR IN PART TO STAUFFER CHEMICAL CO	69.00	
SOLD TO SEVEN-UP/RC BOTTLING CO OF SOUTHERN CALIFORNIA, INC	-69.00	
TOTAL		0.00
ASSOCIATED SOUTHERN INVESTMENT CO	13.00	
(WILLIAM R. MORRIS, GEORGE V. GUTIERREZ AND SOCORRO GUTIERREZ, TENANTS AND LICENSEES)		
SOLD TO SOUTHERN CALIFORNIA EDISON CO	-13.00	
TOTAL		0.00
ATCHISON, TOPEKA, AND SANTA FE RAILWAY CO, THE	99.00	
SOLD TO SIGNAL HILL, CITY OF	-99.00	
TOTAL		0.00
ATKINSON BRICK CO	9.00	
SOLD TO LA BRICKYARD, LLC (10-16-14)	-9.00	
TOTAL		0.00
ATLANTIC RICHFIELD CO		
(FORMERLY KNOWN AS RICHFIELD OIL CORP)		
TRANSFERRED FROM RICHFIELD OIL CORP	57.00	
SOLD IN PART TO CERRO METAL PRODUCTS	-1.00	
SOLD IN PART TO CHASE MANHATTAN BANK	-1.00	
SOLD IN PART TO BOY SCOUTS OF AMERICA LONG BEACH AREA (06/30/2010)	-1.00	
SOLD IN PART TO TESORO LOGISTICS OPERATIONS LLC (6/27/2013)	-54.00	
TOTAL		0.00
ATSMA, ARTHUR		
(SEE LISTING UNDER DE VOSS, ANDREW AND ALICE)		
AUTOMOBILE CLUB OF SOUTHERN CALIFORNIA		
SUCCESSOR TO JAMISON, ROBERT J AND BETTY	6.00	
TOTAL		6.00
AVERY, MARGARET M		
SUCCESSOR TO BEKENDAM, DOUTZEN AND HANK	9.00	
SUCCESSOR TO GOEDHART, REIMER	10.00	
SUCCESSOR TO OOSTEN, RALPH AND CAROLINE	41.00	
SUCCESSOR IN PART TO HILARIDES, JOHN AND MARIA	10.00	
SOLD IN PART TO JONES, CLIFTON S JR, INC	-9.00	
SOLD IN PART TO LONG BEACH CONSTRUCTION CO	-61.00	
TOTAL		0.00
B B LTD		
SUCCESSOR TO RIPHAGEN, VERNON E AND HELEN R	2.00	
SOLD TO WOODBINE CORP	-2.00	
TOTAL		0.00
B F S MUTUAL WATER CO	146.00	
SOLD TO CERRITOS, CITY OF	-146.00	
TOTAL		0.00
BAAR, HENRY		
(SEE LISTING UNDER STEFANI, STEVE SR AND DORA)		
BACON, VERNON E		
(SEE LISTING UNDER SOUTHERN CALIFORNIA EDISON CO)		
BADER, ADOLPH AND GESINE	11.00	
(FRED BADER, TENANT)		
DEDICATED TO CERRITOS, CITY OF	-11.00	
TOTAL		0.00
BAILEY, K R AND VIRGINIA R	1.00	
SOLD TO CRANDALL, E E AND F J	-1.00	
TOTAL		0.00
BAJEMA, DAVE		
(SEE LISTING UNDER DOTINGA, PETER AND TENA)		
BAKER COMMODITIES, INC		
SUCCESSOR TO CALIFORNIA RENDERING CO, LTD	119.00	
SOLD TO PHOENIX TALLOW CO	-119.00	
SUCCESSOR TO PHOENIX TALLOW CO	119.00	
SOLD IN PART TO DARLING-DELAWARE CO, INC	-59.00	
TOTAL		60.00
BAKER, DONALD L AND PATSY RUTH	4.00	
SOLD TO BERNADETTE INVESTMENT CO/GLA DEV CO	-4.00	
TOTAL		0.00
BAKKER, ALLEN	0.00	
TOTAL		0.00
BANGMA, SAM AND IDA	14.00	
SOLD TO EUCLID BALL CO	-14.00	
TOTAL		0.00
BANK OF AMERICA NATIONAL TRUST AND SAVINGS ASSOC, AS TRUSTEE OF TRUST CREATED BY WILL OF TONY V FRIETAS, DECEASED (FRANK A GONSALVES, TENANT)	23.00	
DEDICATED TO CERRITOS, CITY OF	-23.00	
SUCCESSOR TO TRACT NUMBER ONE HUNDRED AND EIGHTY WATER CO	913.00	
SOLD TO TRACT NUMBER ONE HUNDRED AND EIGHTY WATER CO	-913.00	
TOTAL		0.00
BANK OF THE WEST, A CALIFORNIA BANKING CORPORATION		
SUCCESSOR IN INTEREST TO UNITED CALIFORNIA BANK,	18.50	
SOLD TO CITY OF CERRITOS	-18.50	
TOTAL		0.00
BARBARIA, EMMA, AS TO UNDIVIDED ONE-HALF INTEREST; JOHN BARBARIA, JR AND LORRAINE BARBARIA AS TO UNDIVIDED ONE-FOURTH INTEREST; AND FRANK BARBARIA AS TO UNDIVIDED ONE-FOURTH INTEREST (JOHN BARBARIA AND SONS DAIRY, TENANT)	22.00	
DEDICATED TO CERRITOS, CITY OF	-22.00	
TOTAL		0.00
BARCELLES, ANTONIO B AND MANUEL B	10.00	
SOLD TO HORSESHOE CATTLE CO	-10.00	
TOTAL		0.00
BARCELOS, JOHN AND GUILHERMINA	13.00	
SOLD TO SANTA FE SPRINGS, CITY OF	-13.00	
TOTAL		0.00
BARTSMA, SAM AND BIRDIE	27.00	
SOLD IN PART TO KAISER AETNA	-7.00	
SOLD IN PART TO SANTA FE SPRINGS, CITY OF	-20.00	
TOTAL		0.00
BATESON'S SCHOOL OF HORTICULTURE, INC		
(SEE LISTING UNDER JOHN BROWN SCHOOLS OF CALIFORNIA, INC)		
BAUER DEVELOPMENT CO		
SUCCESSOR TO HIGHSTREET, JOHN AND EILEEN	7.00	
SUCCESSOR TO VANDENBERG, JACOB AND ANNA	6.00	
SUCCESSOR TO VANDERLAAN, BERT AND STELLA	8.00	
DEDICATED TO CERRITOS, CITY OF	-21.00	
TOTAL		0.00
BECHARD MUTUAL WATER CORP	4.00	
DEDICATED TO CERRITOS, CITY OF	-4.00	
TOTAL		0.00
BECK AND THOMASON CONSTRUCTION CO		
SUCCESSOR TO STANDLEY, J F AND MYRTLE M	1.00	
SOLD TO ABC UNIFIED SCHOOL DISTRICT	-1.00	
TOTAL		0.00
BECK TRACT WATER CO, INC	23.00	
DEDICATED TO CERRITOS, CITY OF	-23.00	
TOTAL		0.00
BECKLUND, IVER F	1.00	
SOLD TO WILLIAMS, JOHN J	-1.00	
TOTAL		0.00
BECKLUND, MARGARET E	1.00	
SOLD TO WILLIAMS, JOHN J	-1.00	
TOTAL		0.00
BEEGHLY, P T	1.00	
(INTERNATIONAL CARBONIC, INC, TENANT)		
SOLD TO SOMERSET MUTUAL WATER CO	-1.00	
TOTAL		0.00
BEKENDAM, DOUTZEN AND HANK	9.00	
SOLD TO AVERY, MARGARET M	-9.00	
TOTAL		0.00
BEKENDAM, JOHN	0.00	
TOTAL		0.00
BEKENDAM, TILLIE	0.00	
TOTAL		0.00
BELINDA WESTERN CO		
SUCCESSOR TO MURPHY, ELMO D AND EVELENE B	6.00	
SUCCESSOR IN PART TO GRANT, ROBERT H, DEVELOPER	31.00	
DEDICATED TO CERRITOS, CITY OF	-37.00	
TOTAL		0.00

BELL GARDENS, CITY OF		
SUCCESSOR IN PART TO PARK WATER CO	1,914.00	
TOTAL		1,914.00
BELL TRAILER CITY		
(SEE LISTING UNDER SIMMONS, BENNETT E)		
BELLENBAUM, E F AND MARIE P	1.00	
SOLD TO LUSSMAN, PAUL H JR ET AL	-1.00	
TOTAL		0.00
BELLFLOWER CHRISTIAN SCHOOL	26.00	
NAME CHANGE TO VALLEY CHRISTIAN SCHOOLS	-26.00	
TOTAL		0.00
BELLFLOWER, CITY OF	48.00	
SUCCESSOR IN PART TO CALIFORNIA, STATE OF	334.00	
SUCCESSOR TO PEERLES WATER COMPANY	986.00	
SUCCESSOR TO UNION DEVELOPMENT CO, INC	12.00	
(NOW KNOWN AS UNION DEVELOPMENT FINANCIAL, INC) (8-13-2010)		
TOTAL		
1,380.00		
BELLFLOWER HOME GARDEN WATER CO	194.00	
SUCCESSOR TO ERICKSON, JOHN A	20.00	
SUCCESSOR TO LYON, WM, DEVELOPMENT CO, INC	8.00	
SUCCESSOR TO NELSON, OTELIA AND ROBERT	11.00	
SUCCESSOR IN PART TO CALIFORNIA COTTON OIL CORP	73.00	
TOTAL		
	306.00	
BELLFLOWER UNIFIED SCHOOL DISTRICT	89.00	
TOTAL		89.00
BELLFLOWER WATER CO	1,687.00	
SUCCESSOR TO BELMONT WATER ASSOC	9.00	
SUCCESSOR TO SOMERSET MUTUAL WATER CO	2,454.88	
(NOW KNOWN AS BELLFLOWER-SOMERSET MUTUAL WATER CO)		
TRANSFERRED TO BELLFLOWER-SOMERSET MUTUAL WATER CO	-4,150.88	
TOTAL		0.00
BELLFLOWER-SOMERSET MUTUAL WATER CO		
(FORMERLY KNOWN AS BELLFLOWER WATER CO)		
TRANSFERRED FROM BELLFLOWER WATER CO	4,150.88	
SUCCESSOR TO BIGBY TOWNSITE WATER CO	121.00	
SUCCESSOR TO ERICKSON, JOHN A	22.00	
SUCCESSOR TO ERICKSON, JOHN E	2.00	
SUCCESSOR TO WEAVER, BONNIE AS SUCCESSOR TRUSTEE OF SANA HAAKMA TRUST	11.00	
SUCCESSOR TO WIERSMA, WILLIAM ESTATE OF	6.00	
SUCCESSOR TO AQUA CAPITAL MANAGEMENT L.P. (07/01/15)	100.00	
TOTAL		
	4,412.88	
BELMONT WATER ASSOC	9.00	
SOLD TO BELLFLOWER WATER CO	-9.00	
TOTAL		0.00
BELTMAN, TONY	0.00	
TOTAL		0.00
BENDETTI, DONALD L, ET AL		
SUCCESSOR TO OSINGA, JOHN	5.00	
SOLD TO CERRITOS INDUSTRIAL PARK	-5.00	
TOTAL		0.00
BENFID REALTY CO		
SUCCESSOR TO SCHMID, CARL AND OLGA	14.00	
SUCCESSOR TO SMOORENBURG, WILLIAM AND NICK LOOGMAN	17.00	
DEDICATED TO CERRITOS, CITY OF	-31.00	
TOTAL		0.00
BERLU WATER COMPANY, INC	0.00	
TOTAL		0.00
BERNADETTE INVESTMENT CO/GLA DEV CO		
SUCCESSOR TO BAKER, DONALD L AND PATSY RUTH	4.00	
SOLD TO BIRTCHER, FAYETTE E VIA SEQUOIA PACIFIC REALCO	-4.00	
TOTAL		0.00
BERTHA BUILDING CO		
TRANSFERRED FROM BERTHA BUILDING CORP	4.00	
SOLD TO RANDALL, VILLIS	-4.00	
TOTAL		0.00
BERTHA BUILDING CORP		
SUCCESSOR TO BIRTCHER, FAYETTE E	4.00	
(CORPORATION DISSOLVED AND WATER RIGHTS TRANSFERRED TO BERTHA BUILDING CO)	-4.00	
TOTAL		0.00
BETTENCOURT, JACK R AND BELLA	26.00	
DEDICATED IN PART TO CERRITOS, CITY OF	-15.00	
SOLD IN PART TO INGLEWOOD, CITY OF	-11.00	
TOTAL		0.00
BEUSING, J		
SUCCESSOR TO PAYTON, LA VERNE	1.00	
SOLD TO DANIELS, G A	-1.00	
TOTAL		0.00
BEVERLY PARK PLACE		
SUCCESSOR TO CULP, ORLYN L AND GARNETTE	17.00	
SOLD TO SAN GABRIEL VALLEY WATER CO	-17.00	
TOTAL		0.00
BIGBY TOWNSITE WATER CO	121.00	
SOLD TO BELLFLOWER-SOMERSET WATER CO	-121.00	
TOTAL		0.00
BINGGELI, SIEGFRIED AND TRINA L		
(SEE LISTING UNDER LUSSMAN, PAUL H, JR)		
BIRTCHER, FAYETTE E		
SUCCESSOR TO BERNADETTE INVESTMENT CO/GLA DEV CO VIA SEQUOIA PACIFIC REALCO	4.00	
SOLD TO BERTHA BUILDING CORP	-4.00	
TOTAL		0.00
BIXBY, FRED H, RANCH CO	0.00	
TOTAL		0.00
BLACK, DELBERT G AND LENNIE O, AS TO UNDIVIDED		
ONE-HALF INTEREST AND HARLEY LEE, AS TO UNDIVIDED ONE-HALF INTEREST	2.00	
SOLD TO WELLS, RICHARD A AND BEVERLY ANN, AS TO UNDIVIDED ONE-HALF INTEREST AND HARLEY LEE, AS TO UNDIVIDED ONE-HALF INTEREST	-2.00	
TOTAL		0.00
BLOOMFIELD CO		
SUCCESSOR TO BUTLER HOUSING CORP	10.00	
DEDICATED TO CERRITOS, CITY OF	-10.00	
TOTAL		0.00
BLOOMFIELD SCHOOL DISTRICT	32.00	
SOLD TO ABC UNIFIED SCHOOL DISTRICT	-32.00	
TOTAL		0.00
BOAND, HARRY JR, ET AL		
SUCCESSOR TO ARTHUR, ALLAN R AND EVAN C	10.00	
DEDICATED TO CERRITOS, CITY OF	-10.00	
TOTAL		0.00
BOER, ADRIAN AND JULIA	9.00	
SOLD TO RANGERS DIE CASTING CO	-9.00	
TOTAL		0.00
BOER, GERARD AND ROSALYN	4.00	
DEDICATED TO CERRITOS, CITY OF	-4.00	
TOTAL		0.00
BOER, HENRY AND ANNIE	27.00	
(WILLIAM OFFINGA AND SON, INCLUDING SIDNEY OFFINGA, TENANTS AS TO 33 ACRE-FEET OF WATER RIGHT AND 26 ACRE-FEET OF ALLOWED PUMPING ALLOCATION)		
SOLD IN PART TO LU, DON C S AND SHEILA C (HUSBAND AND WIFE AS JOINT TENANTS) AND CHIANG, JIH-SHEN AND YU-HWA (HUSBAND AND WIFE AS JOINT TENANTS)	-1.00	
SOLD IN PART TO OFFINGA, WILLIAM AND SON	-26.00	
TOTAL		0.00
BOERE, EDNA		
(FORMERLY KNOWN AS BOERE, JOHN SR AND EDNA)		
TRANSFERRED FROM BOERE, JOHN SR AND EDNA	48.00	
SOLD IN PART TO LAKEWOOD, CITY OF	-20.00	
SOLD IN PART TO MIDWAY GARDENS MUTUAL WATER ASSOC	-28.00	
TOTAL		0.00
BOERE, JOHN JR AND MARY J	24.00	
SOLD TO BOERE, JOHN SR AND EDNA	-24.00	
TOTAL		0.00
BOERE, JOHN SR AND EDNA	24.00	
(JOHN BOERE JR, TENANT)		
SUCCESSOR TO BOERE, JOHN JR AND MARY J	24.00	
(NOW KNOWN AS BOERE, EDNA)		
TRANSFERRED TO BOERE, EDNA	-48.00	
TOTAL		0.00
BOERE, JOHN JR		
(SEE LISTING UNDER GRENIER, LEONARD A)		
BOERSMA, FRANK AND ANGIE	25.00	
SUCCESSOR TO LAUTENBACH, HENRY AND NELLIE H	13.00	
SOLD IN PART TO ARDEN-MAYFAIR, INC	-25.00	
SOLD IN PART TO PRESLEY DEVELOPMENT CO	-13.00	
TOTAL		0.00
BOERSMA, GEORGE AND NORMA		
SUCCESSOR TO BOERSMA, GERRIT AND JENNIE	6.00	
DEDICATED TO CERRITOS, CITY OF	-6.00	
TOTAL		0.00
BOERSMA, GERRIT AND JENNIE	6.00	
(GEORGE BOERSMA, TENANT)		
SOLD TO BOERSMA, GEORGE AND NORMA	-6.00	
TOTAL		0.00
BOERSMA, JACK	0.00	
TOTAL		0.00
BOERSMA, SAM AND BERDINA	34.00	
DEDICATED IN PART TO CERRITOS, CITY OF	-28.00	
SOLD IN PART TO KAISER AETNA	-6.00	
TOTAL		0.00
BOKMA, JAN		
(SEE LISTING UNDER VANDENBERG, AUGUST)		
BOLLEMA, JACOB	0.00	
TOTAL		0.00
BOLLES, WALLACE J		
SUCCESSOR TO STOVER, WILLIAM T AND GERTRUDE D	3.00	
SOLD TO BROOKS, DR MILO B AND EVA	-3.00	
TOTAL		0.00
BONDED CATTLE CO		

SUCCESSOR TO VISSER, LOUIS 7.00
SUCCESSOR TO ZANE, STEVE 32.00
SUCCESSOR IN PART TO TEIXEIRA, CARL 7.00
DISTRIBUTED TO JAY, HAROLD J AND SHERRY A TRUSTEES OF THE JAY LIVING TRUST -11.50
DISTRIBUTED TO SMITH, MARGARET M -23.00
DISTRIBUTED TO ZANE, STEVE OR FRANCES -11.50
TOTAL 0.00

BOOGAARD, JOHN JR, SUSAN PATRICIA BOOGAARD, CORNILIUS W BOOGAARD AND WILLA J BOOGAARD
SUCCESSOR TO JOHNSTON, DELBERT L, CAROL J JOHNSTON, REX D JOHNSTON AND JUDITH A JOHNSTON 5.00
SOLD TO PARAMOUNT, CITY OF -5.00
TOTAL 0.00

BOOGERD, JAMES C
(SEE LISTING UNDER VAN LEEUWEN, JAKE JR)

BOOTSMA, BERNARD WILLIAM, CARRIE AGNES VAN DAM, AND GLADYS MARIE ROMBERG 10.00
SOLD TO LUXURY HOMES, INC -10.00
TOTAL 0.00

BORDATO, MICHEL AND ANNA M 10.00
(CHARLIE VANDER KOOI, TENANT)
SOLD TO SHATTUCK, J R AND DEBRA -10.00
TOTAL 0.00

BORGES, JOHN AND MARY AKA MRS JOHN BORGES 11.00
(MANUEL B OURIQUE, TENANT)
SOLD TO TIARA ESTATES, INC -11.00
TOTAL 0.00

BORGES, MARY, WIDOW OF MANUEL BORGES 6.00
(MANUEL BORGES JR, TENANT)
SOLD TO CARDOZO HOMES, INC -6.00
TOTAL 0.00

BOS, GERRIT AND MARGARET 70.00
SOLD TO WATT, R A, CO -70.00
TOTAL 0.00

BOSMA, JACOB J
(SEE LISTING UNDER VIERSTRA, SIEGER AND NELLIE G)

BOTHOF, PETER 5.00
SOLD TO SAMPSON, WILLIAM C AND MILDRED S -5.00
TOTAL 0.00

BOTHOF, WILLIAM AND ANTONETTE 6.00
SOLD TO AGAJANIAN, GEORGE E -6.00
TOTAL 0.00

BOUMA, FRANK AND MYRON D KOLSTAD 3.00
SOLD TO CERRITOS, CITY OF -3.00
TOTAL 0.00

BOUMA, TED AND JEANETTE 17.00
SOLD TO LONG BEACH CONSTRUCTION CO -17.00
TOTAL 0.00

BOUMAN, SAM 6.00
(ARIE C VAN LEEUWEN, TENANT)
SOLD TO WARMINGTON CONSTRUCTION CO -6.00
TOTAL 0.00

BOWEN, EDWARD H
SUCCESSOR TO CULBERTSON, KATHERINE 1.00
SUCCESSOR TO MAGNUSSON, ROBERTAM 12.00
SOLD TO KING KELLY MARMALADE CO, INC -13.00
TOTAL 0.00

BOWEN, JOHN H., TRUSTEE OF THE JOHN H. BOWEN TRUST
SUCCESSOR TO KING KELLY MARMALADE CO. INC. 22.00
SOLD TO SEPTEMBER PROPERTIES, LLC -22.00
TOTAL 0.00

BOY SCOUTS OF AMERICA LONG BEACH AREA
SUCCESSOR IN PART TO ATLANTIC RICHFIELD CO (06/30/2010) 1.00
TOTAL 1.00

BRENTWOOD-MORNING CO
SUCCESSOR TO VANDER EYK, CORNELIUS AND NELLIE 6.00
SUCCESSOR TO WESTRA, HENRY AND HILDA 32.00
DEDICATED IN PART TO CERRITOS, CITY OF -6.00
SOLD IN PART TO HORSESHOE CATTLE CO -32.00
TOTAL 0.00

BROOKS, DR MILO B AND EVA
SUCCESSOR TO BOLLES, WALLACE J 3.00
SOLD TO SCHUSTER, DICK J -3.00
TOTAL 0.00

BROWN, JOHN, SCHOOLS OF CALIFORNIA, INC
(BATESON'S SCHOOL OF HORTICULTURE, INC, TENANT) 2.00
SOLD TO LANGSLET, C ROBERT AND SON, INC -2.00
TOTAL 0.00

BROWN, M J JR, AND MARGARET 0.00
TOTAL 0.00

BUCKLEY, ARTHUR W AND MARIAN J
SUCCESSOR TO OROPEZA, PABLO AND AURELIA G 1.00
SOLD TO LAKEWOOD PROPERTIES -1.00
TOTAL 0.00

BUELL, MARY DOLORES
SUCCESSOR TO CULBERTSON, KATHERINE M 1.00
TOTAL 1.00

BULK, ADRIAN AND ALICE 16.00
SOLD TO CERRITOS JUNIOR COLLEGE DISTRICT -16.00
TOTAL 0.00

BUMA, DUKE AND MARTHA 6.00
SOLD TO ARDEN-MAYFAIR, INC -6.00
TOTAL 0.00

BURNS, G CRESWELL AND HELEN RISLOW
SUCCESSOR TO BURNHAM HOSPITAL FOUNDATION
SUCCESSOR TO VISTA HILL PSYCHIATRIC FOUNDATION 31.00
SOLD TO DOWNEY, CITY OF -31.00
TOTAL 0.00

BURSON, MILES A AND ROSE 6.00
SOLD TO WARMINGTON, E G, ET AL -6.00
TOTAL 0.00

BUTLER HOUSING CORP
SUCCESSOR TO CONTINENTAL TITLE CO 10.00
SOLD TO BLOOMFIELD CO -10.00
TOTAL 0.00

BUTLER, THADDEUS L AND BARBARA A
SUCCESSOR TO ASHLAND CHEMICAL CO 10.00
SOLD TO COUNTY WATER CO -10.00
TOTAL 0.00

CABOT, CABOT AND FORBES
SUCCESSOR IN PART TO EHRMAN, FLORENCE HELLMAN, ETC 305.00
SOLD TO COMPTON, CITY OF -305.00
TOTAL 0.00

CALAVAR CORP
(SEE LISTING UNDER H R M LAND CO)

CALIFORNIA-AMERICAN WATER CO
(FORMERLY KNOWN AS CALIFORNIA WATER AND TELEPHONE CO)
TRANSFERRED FROM CALIFORNIA WATER AND TELEPHONE CO 2,067.00
SUCCESSOR FROM FARMERS AND MARCHANT TRUST OF LONG BEACH (7/1/17) 14.00
SUCCESSOR FROM CHEVRON USA INC. (4/20/18) 94.00

TOTAL 2,175.00

CALIFORNIA COTTON OIL CORP 81.00
SOLD TO BELLFLOWER HOME GARDEN WATER CO -73.00
SOLD TO P B S CORP -8.00
TOTAL 0.00

CALIFORNIA DOMESTIC WATER COMPANY
SUCCESSOR TO VERNON COLD STORAGE LLC (06/30/2010) 74.00
SUCCESSOR TO ORANGE COUNTY NURSERY, INC (06/30/2010) 13.00
SUCCESSOR TO PETERSBURG L.P. (7-1-14) 299.00
SOLD TO FORESTAR (USA) REAL ESTATE GROUP INC. (7-1-14) -299.00

TOTAL 87.00

CALIFORNIA PORTLAND CEMENT CO 0.00
TOTAL 0.00

CALIFORNIA RENDERING CO, LTD 119.00
SOLD TO BAKER COMMODITIES, INC -119.00
TOTAL 0.00

CALIFORNIA, STATE OF
(INCLUDED HEREIN ARE WATER RIGHTS OF FRED C NELLES SCHOOL FOR BOYS OF THE STATE OF CALIFORNIA DEPARTMENT OF THE YOUTH AUTHORITY; METROPOLITAN STATE HOSPITAL OF THE STATE OF CALIFORNIA DEPARTMENT OF MENTAL HYGIENE; AND DISTRICT VII, DIVISION OF HIGHWAYS OF THE STATE OF CALIFORNIA DEPARTMENT OF PUBLIC WORKS) 606.00
CONDEMNED AND TRANSFERRED FROM GAMBONI, VICTOR E AND BARBARA H 22.00
SUCCESSOR TO DAIRYMENS FERTILIZER CO-OP, INC 1.00
SUCCESSOR TO MARTIN, MARY 28.00
SUCCESSOR TO VANDE VEGTE, BERT AND LILLIAN 1.00
SOLD TO BELLFLOWER, CITY OF -334.00
SOLD TO MARTIN, MARY -28.00
SOLD TO WHITTIER, CITY OF -246.00
TOTAL 50.00

CALIFORNIA WATER AND TELEPHONE CO 2,067.00
(NOW KNOWN AS CALIFORNIA-AMERICAN WATER CO)
TRANSFERRED TO CALIFORNIA-AMERICAN WATER CO -2,067.00
TOTAL 0.00

CALIFORNIA WATER SERVICE CO 11,774.00
TOTAL 11,774.00

CALIFORNIA WATER SERVICE CO (DOMINGUEZ)
(DOMINGUEZ WATER CO MERGED WITH AND INTO CALIFORNIA WATER SERVICE CO, BUT CA PUC ORDERED THAT THIS "DOMINGUEZ MERGER" BE KEPT AS A SEPARATE ACCOUNT KNOWN AS CALIFORNIA WATER SERVICE CO (DOMINGUEZ))
TRANSFERRED FROM DOMINGUEZ WATER CO 6,480.00
TOTAL 6,480.00

CALVARY CHRISTIAN REFORMED CHURCH OF CHINO
SUCCESSOR TO TE VELDE, HARM AND ZWAANTINA 227.00
SOLD TO CERRITOS, CITY OF -227.00
TOTAL 0.00

CANDLEWOOD COUNTRY CLUB 147.00

SOLD TO ORCHARD DALE WATER DISTRICT (06/30/2010)	-147.00	
TOTAL		0.00
CAPOVILLA, V AND MARY	0.00	
TOTAL		0.00
CARDOZO HOMES, INC		
SUCCESSOR TO BORGES, MARY	6.00	
SUCCESSOR TO DE VRIES, AGNES	13.00	
SUCCESSOR TO DE VRIES, DICK AND THERESA	8.00	
DEDICATED TO CERRITOS, CITY OF	-27.00	
TOTAL		0.00
CARMENITA COMMERCE CENTER		
SUCCESSOR TO MEL, INC (VINCE FARMS INC, TENANT)	54.00	
SOLD TO SANTA FE SPRINGS, CITY OF	-54.00	
TOTAL		0.00
CARMENITA SCHOOL DISTRICT	7.00	
SOLD TO ABC UNIFIED SCHOOL DISTRICT	-7.00	
TOTAL		0.00
CARMENITA VILLAGE		
SUCCESSOR TO VAN DER HAM, GEORGE AND ALICE	8.00	
DEDICATED TO CERRITOS, CITY OF	-8.00	
TOTAL		0.00
CARSON ESTATE CO	111.00	
SOLD TO DOMINGUEZ WATER CORP	-111.00	
TOTAL		0.00
CARVER, PAUL	0.00	
TOTAL		0.00
CASA DE LA CUESTA		
SUCCESSOR IN PART TO VAN RUITEN, PETE AND MARY	8.00	
DEDICATED TO CERRITOS, CITY OF	-8.00	
TOTAL		0.00
CASA DEL AMO		
SUCCESSOR TO LANGSTON, CALVIN E AND EDITH	1.00	
DEDICATED TO CERRITOS, CITY OF	-1.00	
TOTAL		0.00
CASA GRANDE		
SUCCESSOR TO STELLINGWERF, HENRY AND JEANETTE	11.00	
SUCCESSOR TO WARMINGTON, E G, ET AL	6.00	
SUCCESSOR IN PART TO WARMINGTON CONSTRUCTION CO	10.00	
DEDICATED TO CERRITOS, CITY OF	-27.00	
TOTAL		0.00
CATALIN CORP OF AMERICA	10.00	
SOLD TO ASHLAND CHEMICAL CO	-10.00	
TOTAL		0.00
CBP RESOURCES, INC		
SUCCESSOR TO PETERSON MANUFACTORING CO, INC	58.00	
SOLD TO DARLING-DELAWARE CO, INC	-58.00	
TOTAL		0.00
CECC, LLC.		
SUCCESSOR TO TAUREK, MARY (10-4-13)	1.00	
SOLD TO ECOGAS INC. (10-1-14)	-1.00	
TOTAL		0.00
CENTER CITY WATER CO	69.00	
SOLD TO COUNTY WATER CO	-69.00	
TOTAL		0.00
CENTRAL BASIN MUNICIPAL WATER DISTRICT		
SUCCESSOR IN PART TO SAN GABRIEL VALLEY WATER COMPANY	50.65	
SOLD IN PART TO LOS ANGELES, CITY OF (5-30-14)	46.00	
TOTAL		4.65
CENTRAL MANUFACTURING DISTRICT, INC (LOUIS GUGLIELMANA AND RICHARD WIGBOLY, TENANTS) (NOW KNOWN AS SANTA FE LAND IMPROVEMENT CO)	660.00	
TRANSFERRED TO SANTA FE LAND IMPROVEMENT CO	-660.00	
TOTAL		0.00
CENTURY CENTER MUTUAL WATER ASSOC	254.00	
SUCCESSOR TO SPECIALTY SHOPPING CENTERS INC	43.00	
SUCCESSOR IN PART TO KNEVELBAARD, JAKE AND ANNA	10.00	
SOLD TO PARAMOUNT, CITY OF	-307.00	
TOTAL		0.00
CENTURY CITY MUTUAL WATER CO, LTD	50.00	
SOLD TO PARAMOUNT, CITY OF	-50.00	
TOTAL		0.00
CERRITOS BUSINESS CENTER		
SUCCESSOR TO FARMERS AND MERCHANTS BANK OF LONG BEACH	3.00	
DEDICATED TO CERRITOS, CITY OF	-3.00	
TOTAL		0.00
CERRITOS, CITY OF (FORMERLY KNOWN AS DAIRY VALLEY, CITY OF)		
DEDICATED FROM A E REALTY PARTNERS	7.00	
DEDICATED FROM ALGER, TOM AND HILDA	7.00	
DEDICATED FROM BADER, ADOLPH AND GESINE	11.00	
DEDICATED FROM BANK OF AMERICA NATIONAL TRUST AND SAVINGS ASSOC, AS TRUSTEE	23.00	
DEDICATED FROM BARBARIA, EMMA, AS TO UNDIVIDED ONE-HALF INTEREST; JOHN BARBARIA, JR AND LORRAINE BARBARIA AS TO UNDIVIDED ONE-FOURTH INTEREST; AND FRANK BARBARIA AS TO UNDIVIDED ONE-FOURTH INTEREST	22.00	
DEDICATED FROM BAUER DEVELOPMENT CO	21.00	
DEDICATED FROM BECHARD MUTUAL WATER CORP	4.00	
DEDICATED FROM BECK TRACT WATER CO, INC	23.00	
DEDICATED FROM BELINDA WESTERN CO	37.00	
DEDICATED FROM BENFID REALTY CO	31.00	
DEDICATED FROM BLOOMFIELD CO	10.00	
DEDICATED FROM BOAND, HARRY JR, ET AL	10.00	
DEDICATED FROM BOER, GERARD AND ROSALYN	4.00	
DEDICATED FROM BOERSMA, GEORGE AND NORMA	6.00	
DEDICATED FROM CARDOZO HOMES, INC	27.00	
DEDICATED FROM CARMENITA VILLAGE	8.00	
DEDICATED FROM CASA DE LA CUESTA	8.00	
DEDICATED FROM CASA DEL AMO	1.00	
DEDICATED FROM CASA GRANDE	27.00	
DEDICATED FROM CERRITOS BUSINESS CENTER	3.00	
DEDICATED FROM CERRITOS DISTRIBUTION ASSOCIATES II	22.00	
DEDICATED FROM CERRITOS INDUSTRIAL PARK	5.00	
DEDICATED FROM CERRITOS JOINT VENTURE NO 2	4.00	
DEDICATED FROM CERRITOS V	5.00	
DEDICATED FROM CERRITOS VENTURE	38.00	
DEDICATED FROM CERRITOS VILLAGE	18.00	
DEDICATED FROM CHRISTOFFELS, JOHN AND EFFIE	11.00	
DEDICATED FROM CLARK & WHEELER ENGINEERING, INC	5.00	
DEDICATED FROM DE GROOT, ERNEST AND DOROTHY	65.00	
DEDICATED FROM DE JONG, JAKE AND LENA	17.00	
DEDICATED FROM DERBY CORP, ET AL	23.00	
DEDICATEC FROM DE VRIES, GERRIT AND CLAZIENA	14.00	
DEDICATED FROM DYKSTRA, JOHN AND WILMA	42.00	
DEDICATED FROM EMBLEM DEVELOPMENT CORP	3.00	
DEDICATED FROM FIKSE, HENRY AND JENNIE	4.00	
DEDICATED FROM GENERAL TELEPHONE CO OF CALIF	2.00	
DEDICATED FROM GEORGIA LAND CO	30.00	
DEDICATED FROM GORDON, NORMAN W, ET AL	8.00	
DEDICATED FROM HATANAKA, KAMEKO	7.00	
DEDICATED FROM HOMEN, MANUEL L	14.00	
DEDICATED FROM HOP, ANDREW JR, AND MURIEL	26.00	
DEDICATED FROM JONGSMA, HAROLD AND MARY N	52.00	
DEDICATED FROM LANDMARK ESTATES, INC	17.00	
DEDICATED FROM LARWIN SOUTHERN CALIFORNIA, INC	25.00	
DEDICATED FROM LEAL, FRANK C AND LOIS L	12.00	
DEDICATED FROM LINWOOD HOMES, INC	30.00	
DEDICATED FROM LOS ANGELES COUNTY SANITATION DISTRICT NO 2	21.00	
DEDICATED FROM LUSCHER, JOHN AND FREIDA	10.00	
DEDICATED FROM LUXURY HOMES, INC	10.00	
DEDICATED FROM MAIDEN-FAIR CO	10.00	
DEDICATED FROM MARLOWE, WALTER AND EDNA	1.00	
DEDICATED FROM MOUNTAIN VIEW DAIRIES, INC VIA BECHLER CORP AND PACIFIC COAST PROP	54.00	
DEDICATED FROM NAVA CONSTRUCTION CO	16.00	
DEDICATED FROM NEWPORT SHORES BUILDERS	22.00	
DEDICATED FROM P B S CORP	8.00	
DEDICATED FROM PIRES, TONY C AND LAURA C	25.00	
DEDICATED FROM PRESLEY DEVELOPMENT CO	118.00	
DEDICATED FROM R & C DEVELOPERS	17.00	
DEDICATED FROM RANGERS DIE CASTING CO	9.00	
DEDICATED FROM RUGGIERI, FRANK & VADA AND DAVID & FAY SELDEEN (RAY MITCHELL, TENANT)	18.00	
DEDICATED FROM SAFEWAY STORES, INC	14.00	
DEDICATED FROM S D C, INC	10.00	
DEDICATED FROM SHATTUCK, J R AND DEBRA	10.00	
DEDICATED FROM SIEVERS, ROBERT L AND BETTY	1.00	
DEDICATED FROM SNOW, JAMES M AND ESSIE M	24.00	
DEDICATED FROM SOMERSET LAND CO	20.00	
DEDICATED FROM STAR DUST LANDS INC	68.00	
DEDICATED FROM STATE-WIDE DEVELOPERS	14.00	
DEDICATED FROM STEPHEN-BLACK CO	7.00	
DEDICATED FROM STERK, HENRY AND BETTY S	91.00	
DEDICATED FROM STERLING DEVELOPMENT CO	8.00	
DEDICATED FROM SUMA HOMES, INC AND NOVA HOMES, INC	17.00	
DEDICATED FROM TANCREDI, ROSE V	54.00	
DEDICATED FROM TIARA ESTATES, INC	11.00	
DEDICATED FROM TROY HOMES, INC	45.00	
DEDICATED FROM VAN LEEUWEN, HENRY AND CAROLINE P; GERRIT VAN LEEUWEN OF 5948 LORELEI ST, BELLFLOWER, AND ELLEN VAN LEEUWEN	1.00	
DEDICATED FROM VANDER VEGT, GEORGE AND HOUJKE	10.00	
DEDICATED FROM VANDERHAM, HUIBERT AND HENRIETTA	26.00	
DEDICATED FROM VEENENDAAL, EVERT AND GERTRUDE	18.00	
DEDICATED FROM VEENENDAAL, JOE H AND MARGIE	27.00	
DEDICATED FROM VELASCO, SALVADOR	13.00	
DEDICATED FROM VERTEX DEVELOPMENT CORP	16.00	
DEDICATED FROM WALNUT CREEK CANNING CO	1.00	
DEDICATED FROM WARMINGTON DEVELOPMENT INC	8.00	
DEDICATED FROM WATT, R A CO	153.00	
DEDICATED FROM WEST PAC, LTD	13.00	
DEDICATED FROM WESTPORT-CERRITOS CO	10.00	
DEDICATED FROM WINTERS, HELENE K	1.00	
DEDICATED FROM WOODBINE CORP	2.00	
DEDICATED FROM YOUNG, MAXINE	3.00	
DEDICATED FROM ZEILSTRA, ARNOLD AND NELLIE	5.00	
DEDICATED IN PART FROM BETTENCOURT, JACK R	15.00	

AND BELLA		
DEDICATED IN PART FROM BOERSMA, SAM AND BERDINA	28.00	
DEDICATED IN PART FROM BRENTWOOD MORNING CO	6.00	
DEDICATED IN PART FROM CERRITOS-PACIFIC DEVELOPMENT CO	3.00	
DEDICATED IN PART FROM CERRITOS-PACIFIC DEVELOPMENT CO	1.00	
DEDICATED IN PART FROM CLASSIC DEVELOPMENT CO	17.00	
DEDICATED IN PART FROM COLLINSWORTH, J E	9.00	
DEDICATED IN PART FROM CORP OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS	31.00	
DEDICATED IN PART FROM DE VOSS, ANDREW AND ALICE	7.00	
DEDICATED IN PART FROM DUNN, L AND M	4.00	
DEDICATED IN PART FROM GONSALVES, ELVIRA	15.00	
DEDICATED IN PART FROM GRANT, ROBERT H DEVELOPER, INC	10.00	
DEDICATED IN PART FROM HAAKMA, ED AND SJANA	11.00	
DEDICATED IN PART FROM KIMM, JACOB R AND BONNIE	29.00	
DEDICATED IN PART FROM KAISER AETNA	84.00	
DEDICATED IN PART FROM LONG BEACH CONSTRUCTION CO	17.00	
DEDICATED IN PART FROM MUSSACHIA, CARL A, FRANCIS J MUSSACHIA, ANTHONY G MUSSACHIA JR, ANNA MARIE CAOLE AS TO UNDIVIDED ONE-FOURTH INTEREST	2.00	
DEDICATED IN PART FROM PINHEIRO, A C AND MARY M	4.00	
DEDICATED IN PART FROM SOUZA, MANUEL M SR, MANUEL M JR, FRANK M SOUZA AND LOUIE J SOUZA	10.00	
DEDICATED IN PART FROM TEIXEIRA, CARL	2.00	
DEDICATED IN PART FROM WARMINGTON CONSTRUCTION CO	6.00	
SUCCESSOR TO AGUIAR DAIRY, INC	26.00	
SUCCESSOR TO BFS MUTUAL WATER CO	146.00	
SUCCESSOR TO BOUMA, FRANK AND KOLSTAD, MYRON D	3.00	
SUCCESSOR TO CALVARY CHRISTIAN REFORMED CHURCH OF CHINO	227.00	
SUCCESSOR TO CORDA, JOSEPH, JOSEPH CERVANTES, AND LARRY WINDLE	16.00	
SUCCESSOR TO DE VOSS, ALICE	9.00	
SUCCESSOR TO DUNCAN, JOE F & GRACE V AND ELMER J & LELIA M DAVIS	12.00	
SUCCESSOR TO ESCOBAR, ANTHONY F AND EVA, M	11.00	
SUCCESSOR TO FEDERATED DEPARTMENT STORES, INC	2.00	
SUCCESSOR TO GIBBONS, ROBERT L	5.00	
SUCCESSOR TO GUERRERO, FLORENCE	2.00	
SUCCESSOR TO HAMRA, ROBERT J AND RAMZA	7.00	
SUCCESSOR TO HATANAKA, KAZUO	8.00	
SUCCESSOR TO HILARIDES, BOB AND MAAIKE	41.00	
SUCCESSOR TO HIX, WILLIS G	1.00	
SUCCESSOR TO HUNTINGTON PACIFIC CORP	10.00	
SUCCESSOR TO JAR/CERRITOS CORPORATE CENTER	4.00	
SUCCESSOR TO JAY, HAROLD J AND SHERRY A, TRUSTEES OF THE JAY LIVING TRUST	11.50	
SUCCESSOR TO JONES, U STEWART AND DOROTHY E	1.00	
SUCCESSOR TO KOTAKE, WILLIAM	48.03	
SUCCESSOR TO L G G FAMILY TRUST	6.00	
SUCCESSOR TO LUTHERAN CHURCH	15.00	
SUCCESSOR TO MICHAEL,C INC	20.00	
SUCCESSOR TO MIERSMA, HENRY AND SUSAN M	6.00	
SUCCESSOR TO MILESKI, DAVE	2.00	
SUCCESSOR TO ORCHARD PARK WATER CLUB, INC	40.00	
SUCCESSOR TO PRUDENTIAL INSURANCE CO OF AMERICA, THE	76.00	
SUCCESSOR TO RYAN, THOMAS S AND DOROTHY J	15.00	
SUCCESSOR TO SAN ANTONIO DAIRY FEEDS CO	4.00	
SUCCESSOR TO SAVAGE, WILLIAM	3.00	
SUCCESSOR TO SHAFFER, CHRIS AND CELIA I	6.00	
SUCCESSOR TO SHENG, PING LING	1.00	
SUCCESSOR TO SHIOZAKI, YAHIKO & KIYOKO AND KEN & GRACE SHIOZAKI	5.00	
SUCCESSOR TO STANDARD BRANDS PAINT CO, INC	1.00	
SUCCESSOR TO STOCKMAL, JOHN F	3.00	
SUCCESSOR TO ULLRICH PROPERTIES	2.00	
SUCCESSOR TO VAN DIEST, MARGARET	22.00	
SUCCESSOR TO VANDER SYS, MATT AND JOHANNA	10.00	
SUCCESSOR TO VERHOEVEN, JOHN C AND SADIE	20.00	
SUCCESSOR IN PART TO ARTESIA CEMETERY DISTRICT	12.00	
SUCCESSOR IN PART TO DE VOSS, ANDREW AND ALICE	13.00	
SUCCESSOR IN PART TO GANDOLFO, NICK, ESTATE OF	3.00	
SUCCESSOR IN PART TO KIMM, JACOB R AND BONNIE	10.00	
SUCCESSOR IN PART TO KNEVELBAARD, JAKE AND ANNA	30.00	
SUCCESSOR IN PART TO LA HACIENDA WATER CO	18.00	
SUCCESSOR IN PART TO MAYWOOD MUTUAL WATER CO NO 3	200.00	
SUCCESSOR IN PART TO PACIFIC COAST PACKAGING CORP	417.00	
SUCCESSOR IN PART TO SOUTHERN PACIFIC INDUSTRIAL DEV CO	20.00	
SUCCESSOR IN PART TO SWIFT AND CO	896.00	
SUCCESSOR IN PART TO ZIVELONGHI, GEORGE AND ANTONIO	45.00	
SUCCESSOR IN PART TO ZYLSTRA, JOHN AND LEONARD J	10.00	
SUCCESSOR TO BANK OF THE WEST	18.50	
TOTAL		4,680.03
CERRITOS COMMUNITY COLLEGE DISTRICT		
(FORMERLY KNOWN AS CERRITOS JUNIOR COLLEGE DIST)		
TRANSFERRED FROM CERRITOS JUNIOR COLLEGE DIST	95.00	
SUCCESSOR TO BULK, ADRIAN AND ALICE	16.00	
SUCCESSOR TO SANTANA, JOE AND PALMIRA	8.00	
SUCCESSOR TO VANDER KOOI, CHARLIE AND LENA MAE	10.00	
SUCCESSOR TO VELDHUIZEN, ALBERT AND HELEN	18.00	
TOTAL	147.00	
CERRITOS DISTRIBUTION ASSOCIATES II		
SUCCESSOR TO JORRITSMA, DAVE AND ELIZABETH	22.00	
DEDICATED TO CERRITOS, CITY OF	-22.00	
TOTAL		0.00
CERRITOS FERTILIZER CO		0.00
(FORMERLY KNOWN AS DELAURA, EVERETT AND DOLORES)		
TRANSFERRED FROM DELAURA, EVERETT AND DOLORES	0.00	
TOTAL		0.00
CERRITOS INDUSTRIAL PARK		
SUCCESSOR TO BENDETTI, DONALD L, ET AL	5.00	
DEDICATED TO CERRITOS, CITY OF	-5.00	
TOTAL		0.00
CERRITOS JOINT VENTURE NO 2		
SUCCESSOR TO FULTHEIM, PAUL AND HELGA	4.00	
DEDICATED TO CERRITOS, CITY OF	-4.00	
TOTAL		0.00
CERRITOS JUNIOR COLLEGE DISTRICT	95.00	
(NOW KNOWN AS CERRITOS COMMUNITY COLLEGE DIST)		
TRANSFERRED TO CERRITOS COMMUNITY COLLEGE DIST)	-95.00	
TOTAL		0.00
CERRITOS-PACIFIC DEVELOPMENT CO		
SUCCESSOR TO RANDALL, B WILLIAM AND YVONNE E	8.00	
SUCCESSOR TO TASHIMA, ROY AND SHIGEO	1.00	
APPORTIONED TO CLARK & WHEELER ENGINEERING, INC	-5.00	
DEDICATED IN PART TO CERRITOS, CITY OF	-3.00	
DEDICATED IN PART TO CERRITOS, CITY OF	-1.00	
TOTAL		0.00
CERRITOS PARK MUTUAL WATER CO	62.00	
SOLD TO PARK WATER CO	-62.00	
TOTAL		0.00
CERRITOS V		
SUCCESSOR TO DYKSTRA, JAMES AND DORA	5.00	
DEDICATED TO CERRITOS, CITY OF	-5.00	
TOTAL		0.00
CERRITOS VENTURE		
SUCCESSOR TO VAN DAM, GERTRUDE	38.00	
DEDICATED TO CERRITOS, CITY OF	-38.00	
TOTAL		0.00
CERRITOS VILLAGE		
SUCCESSOR TO VANDER FEER, PETER AND RIEKA	18.00	
DEDICATED TO CERRITOS, CITY OF	-18.00	
TOTAL		0.00
CERRO METAL PRODUCTS		
SUCCESSOR IN PART TO ATLANTIC RICHFIELD CO	1.00	
SOLD TO CMPC TRANSITION CORPORATION	-1.00	
TOTAL		0.00
CERVANTES, JOSEPH		
(SEE LISTING UNDER CORDA, JOSEPH, JOSEPH CERVANTES, AND LARRY WINDLE)		
CHALLENGE CREAM AND BUTTER ASSOC	117.00	
SOLD TO LAKEWOOD, CITY OF	-117.00	
TOTAL		0.00
CHANG, I-HSIN AND ASSOCIATES		
SUCCESSOR IN PART TO GANDOLFO, NICK, ESTATE OF	1.00	
TOTAL		1.00
CHANSALL MUTUAL WATER CO	81.00	
SOLD TO MAYWOOD MUTUAL WATER CO NO 2	-81.00	
TOTAL		0.00
CHAPIN, MAYNARD W, EXECUTOR OF THE ESTATE OF HUGH L CHAPIN, DECEASED	29.00	
SOLD TO MONTEBELLO, CITY OF	-29.00	
TOTAL		0.00
CHASE MANHATTAN BANK		
SUCCESSOR IN PART TO ATLANTIC RICHFIELD CO	1.00	
SOLD TO SANTA FE SPRINGS, CITY OF	-1.00	
TOTAL		0.00
CHERRYVALE WATER USERS' ASSOC	11.00	
SOLD TO LONG BEACH, CITY OF	-11.00	
TOTAL		0.00
CHEVRON U S A		
(NAME CHANGED FROM STANDARD OIL CO OF CALIFORNIA)		
TRANSFERRED FROM STANDARD OIL CO OF CALIFORNIA	94.00	
SOLD TO CALIFORNIA AMERCAN WATER COMPANY (4/20/18)	-94.00	
TOTAL		0.00
CHIANG, JIH-SHEN AND YU-HWA		
SUCCESSOR TO LU, DON C S AND SHEILA C (HUSBAND AND WIFE AS JOINT TENNANTS) AND JIH-SHEN AND YU-HWA CHIANG (HUSBAND	1.00	

AND WIFE AS JOINT TENNANTS)		
SOLD TO WESTERN WATER CO	-1.00	
TOTAL		0.00
CHIKAMI, SHIGERU AND JACK, DBA CHIKAMI BROS FARMING	8.00	
(SEE ALSO LISTING UNDER SOUTHERN CALIFORNIA EDISON CO)		
SOLD TO O N K FARMS	-8.00	
TOTAL		0.00
CHRISTOFFELS, JOHN AND EFFIE	11.00	
DEDICATED TO CERRITOS, CITY OF	-11.00	
TOTAL		0.00
CITRUS GROVE HEIGHTS WATER CO	222.00	
SOLD TO SOMERSET MUTUAL WATER CO	-222.00	
TOTAL		0.00
CITY FARMS MUTUAL WATER CO NO 1	30.00	
SOLD TO COUNTY WATER CO	-30.00	
TOTAL		0.00
CITY FARMS MUTUAL WATER CO NO 2	12.00	
SOLD TO MIDWAY GARDEN MUTUAL WATER ASSOC	-12.00	
TOTAL		0.00
CITY OF ARTESIA		
(SEE LISTING UNDER ARTESIA, CITY OF)		
CITY OF BELLFLOWER		
(SEE LISTING UNDER BELLFLOWER, CITYOF)		
CITY OF COMPTON		
(SEE LISTING UNDER COMPTON, CITY OF)		
CITY OF DOWNEY		
(SEE LISTING UNDER DOWNEY, CITY OF)		
CITY OF HUNTINGTON PARK		
(SEE LISTING UNDER HUNTINGTON PARK, CITY OF)		
CITY OF INGLEWOOD		
(SEE LISTING UNDER INGLEWOOD, CITY OF)		
CITY OF LAKEWOOD		
(SEE LISTING UNDER LAKEWOOD, CITY OF)		
CITY OF LONG BEACH		
(SEE LISTING UNDER LONG BEACH, CITY OF)		
CITY OF LOS ANGELES		
(SEE LISTING UNDER LOS ANGELES, CITY OF)		
CITY OF LYNWOOD		
(SEE LISTING UNDER LYNWOOD, CITY OF)		
CITY OF MONTEBELLO		
(SEE LISTING UNDER MONTEBELLO, CITY OF)		
CITY OF NORWALK		
(SEE LISTING UNDER NORWALK, CITY OF)		
CITY OF SANTA FE SPRINGS		
(SEE LISTING UNDER SANTA FE SPRINGS, CITY OF)		
CITY OF SIGNAL HILL		
(SEE LISTING UNDER SIGNAL HILL, CITY OF)		
CITY OF SOUTH GATE		
(SEE LISTING UNDER SOUTH GATE, CITY OF)		
CITY OF VERNON		
(SEE LISTING UNDER VERNON, CITY OF)		
CITY OF WHITTIER		
(SEE LISTING UNDER WHITTIER, CITY OF)		
CLANTON, ALLAN AND INA	64.00	
(NOW KNOWN AS CLANTON, INA R, ESTATE OF)		
TRANSFERRED TO CLANTON, INA R, ESTATE OF	-64.00	
TOTAL		0.00
CLANTON, INA R, ESTATE OF		
(FORMERLY KNOWN AS CLANTON, ALLAN AND INA)		
TRANSFERRED FROM CLANTON, ALLAN AND INA	64.00	
APPORTIONED TO DEANS, B ROZALPHA	-32.00	
APPORTIONED TO FLETCHER, LYNN W AND ALBERTA C	-32.00	
TOTAL		0.00
CLARETIAN JR SEMINARY		
(SEE LISTING UNDER DOMINGUEZ SEMINARY)		
CLARK AND WHEELER ENGINEERING, INC		
APPORTIONED FROM CERRITOS-PACIFIC DEVELOPMENT CO	5.00	
DEDICATED TO CERRITOS, CITY OF	-5.00	
TOTAL		0.00
CLARK, RUSSELL B		
(SEE LISTING UNDER RESEARCH BUILDING CORP)		
SUCCESSOR TO RESEARCH BUILDING CORP	9.00	
SUCCESSOR TO RYPKEMA, SAM AND TENA	6.00	
SOLD IN PART TO SANTA FE SPRINGS, CITY OF	-9.00	
SOLD IN PART TO WEISS, MORRIS	-6.00	
TOTAL		0.00
CLASSIC DEVELOPMENT CO		
SUCCESSOR TO COITO, JOHN H AND GUILHERMINA	14.00	
SUCCESSOR TO GORDEN, ERIC AND HILDE	2.00	
SUCCESSOR TO HIGHSTREET, ALFRED V AND EVADA V	8.00	
SUCCESSOR IN PART TO VIERRA, JOSEPH C & CAROLINE	1.00	
DEDICATED IN PART TO CERRITOS, CITY OF	-17.00	
SOLD TO ROCKVIEW DAIRIES, INC	-8.00	
TOTAL		0.00
CLOO, JACOB AND GRACE	13.00	
SOLD TO FIRST BAPTIST CHURCH OF CERRITOS	-13.00	
TOTAL		0.00
CLOUGHERTY PACKING CO	64.00	
SOLD TO MAYWOOD MUTUAL WATER CO NO 3	-64.00	
TOTAL		0.00
CMPC TRANSITION CORPORATION		
(NOW KNOWN AS CMPC TRANSITION LLC)		
SUCCESSOR TO CERRO METAL PRODUCTS	1.00	
SOLD TO ROWLAND WATER DISTRICT (10-26-2010)	-1.00	
TOTAL		0.00
COAST PACKING CO	341.00	
SUCCESSOR TO CORP OF PRES BISHOP OF L D S	10.00	
SUCCESSOR TO CURRY, EVERETT AND MARGUERITE	2.00	
SUCCESSOR TO DAUGHERTY, JULES AND HATTIE	1.00	
SUCCESSOR TO DOWNEY LAND CO	81.00	
SUCCESSOR TO MURPHY, ELMO D AND EVELENE B	24.00	
SUCCESSOR TO PIMENTAL, LUCILLE C	13.00	
SUCCESSOR TO SUNNYSIDE MAUSOLEUM CO	48.00	
SUCCESSOR TO VANDERHAM, JOE AND CORNELIA	10.00	
TOTAL		
	530.00	
COAST WATER CO	470.00	
SOLD TO SIGNAL HILL, CITY OF	-470.00	
TOTAL		0.00
COELHO, JOE A, JR AND ISABEL	4.00	
SOLD TO LARWIN SOUTHERN CALIFORNIA, INC	-4.00	
TOTAL		0.00
COITO, J H, JR	0.00	
TOTAL		0.00
COITO, JOHN H AND GUILHERMINA	14.00	
(ZYLSTRA BROS, A PARTNERSHIP CONSISTING OF LAMMERT AND WILLIAM ZYLSTRA, TENANT)		
SOLD TO CLASSIC DEVELOPMENT CO	-14.00	
TOTAL		0.00
COLLINSWORTH, J E	12.00	
DEDICATED IN PART TO CERRITOS, CITY OF VIA CLASSIC DEVELOPMENT CO	-9.00	
SOLD IN PART TO SANTA FE SPRINGS, CITY OF	-3.00	
TOTAL		0.00
COLWELL CO		
SUCCESSOR TO PECOS PARK	17.00	
SOLD TO R & C DEVELOPERS	-17.00	
TOTAL		0.00
COMMERCE, CITY OF		
SUCCESSOR IN PART TO PARK WATER CO	2,400.00	
SUCCESSOR TO COMMERCE HOTEL, LTD	15.00	
SUCCESSOR TO LAGUNA-MAYWOOD MUTUAL WATER CO	1,283.00	
SUCCESSOR TO MORIARTY, W PATRICK	656.00	
SUCCESSOR TO SINCLAIR PAINT CO	312.00	
SUCCESSOR TO TELACU INDUSTRIAL PARK INC	415.00	
TOTAL		5,081.00
COMMERCE HOTEL, LTD		
SUCCESSOR TO HYAN, SUSAN A, TRUSTEE OF THE JAISOHN QTIP TRUST U/D/T 4/2/83 AND SUSAN A. HYAN LIVING TRUST U/D/T 4/23/83	15.00	
SOLD TO COMMERCE, CITY OF	-15.00	
TOTAL		0.00
COMPTON, CITY OF	5,209.00	
SUCCESSOR TO CABOT, CABOT AND FORBES	305.00	
SUCCESSOR TO HUYG, CONRAD L AND MARIA	18.00	
SUCCESSOR TO RICHLAND FARMS MUTUAL WATER CO	173.00	
SUCCESSOR IN PART TO LA HACIENDA WATER CO	18.00	
SUCCESSOR TO MIDLAND PARK WATER TRUST	57.00	
TOTAL		5,780.00
COMPTON UNION HIGH SCHOOL DISTRICT	38.00	
(NOW KNOWN AS COMPTON UNIFIED SCHOOL DISTRICT)		
TRANSFERRED TO COMPTON UNIFIED SCHOOL DISTRCT	-38.00	
TOTAL		0.00
COMPTON UNIFIED SCHOOL DISTRICT		
(FORMERLY COMPTON UNION HIGH SCHOOL DISTRICT)		
TRANSFERRED FROM COMPTON UNION HIGH SCHOOL DISTRICT	38.00	
TOTAL		38.00
CONAGRA TRADE GROUP		
SUCCESSOR TO GREAT WESTERN MALTING COMPANY	358.00	
SOLD TO AQUA CAPITAL MANAGEMENT LP	-358.00	
TOTAL		0.00
CONSERVATIVE WATER CO	3,306.00	
SOLD TO LONG BEACH, CITY OF	-3,306.00	
TOTAL		0.00
CONTAINER CORP OF AMERICA	1,058.00	
(NAME CHANGED TO JEFFERSON SMURFIT CORP (U S))		
TRANSFERRED TO JEFFERSON SMURFIT CORP (U S)	-1,058.00	
TOTAL		0.00
CONTEAS, NICHOLAS C AND P BASIL LAMBROS	1.00	
(VEHICLE MAINTENANCE AND PAINTING CORP, TENANT)		
SOLD TO SANTA FE SPRINGS, CITY OF	-1.00	
TOTAL		0.00
CONTINENTAL CAN CO, INC	757.00	
SOLD TO FEDERAL PAPER BOARD CO, INC	-757.00	
TOTAL		0.00
CONTINENTAL CANINES, INC		
CHANGED FROM DANIELS, G A (12-18-70) WITH ZERO WATER RIGHT	0.00	
TOTAL		
	0.00	
CONTINENTAL TITLE CO		
(HARRY MARGOLIS-TRUSTEE)		

SUCCESSOR TO ADAMS, CHARLES E AND RHODA E	10.00	
SOLD TO BUTLER HOUSING CORP	-10.00	
TOTAL		0.00
CONTRACTORS ASPHALT PRODUCTS CO, INC	13.00	
SOLD TO SULLY-MILLER CONTRACTING CO	-13.00	
TOTAL		0.00
CONTRERAS, R M	6.00	
CONDEMNED AND TRANSFERRED TO A B C UNIFIED SCHOOL DISTRICT	-6.00	
TOTAL		0.00
COOPER, PHIL		
(SEE LISTING UNDER ASMUS, CONRAD AND PHIL COOPER)		
COPP EQUIPMENT CO, INC AND HUMPHRIES INVESTMENT, INC	6.00	
SOLD TO SANTA FE SPRINGS, CITY OF	-6.00	
TOTAL		0.00
CORDA, JOSEPH, JOSEPH CERVANTES AND LARRY WINDLE		
SUCCESSOR TO THOMPSON, DWIGHT AND BEVERLY	16.00	
SOLD TO CERRITOS, CITY OF	-16.00	
TOTAL		0.00
CORDEIRO, MARY		
TRANSFERRED IN PART FROM CORDEIRO, MARY AND SANWA BANK CALIFORNIA, FORMERLY LLOYDS BANK CALIFORNIA, FORMERLY FIRST WESTERN BANK AND TRUST CO, AS TRUSTEE PURSUANT TO LAST WILL AND TESTAMENT TESTAMENT OF TONY CORDEIRO, DECEASED	18.50	
SOLD TO DOWNEY, CITY OF	-18.50	
TOTAL		0.00
CORDEIRO, MARY AND FIRST WESTERN BANK AND TRUST CO, AS TRUSTEE PURSUANT TO LAST WILL AND TESTAMENT OF TONY CORDEIRO, DECEASED	37.00	
(NOW KNOWN AS CORDEIRO, MARY AND LLOYDS BANK CALIFORNIA, FORMERLY FIRST WESTERN BANK AND TRUST CO, AS TRUSTEE PURSUANT TO LAST WILL AND TESTAMENT OF TONY CORDEIRO, DECASED)		
TRANSFERRED TO CORDEIRO, MARY AND LLOYDS BANK CALIFORNIA, ETC.	-37.00	
TOTAL		0.00
CORDEIRO, MARY AND LLOYDS BANK CALIFORNIA, FORMERL, FIRST WESTERN BANK AND TRUST CO, AS TRUSTEE PURSUANT TO LAST WILL AND TESTAMENT OF TONY CORDEIRO, DECEASED)		
TRANSFERRED FROM CORDEIRO, MARY AND FIRST WESTERN BANK CALIFORNIA, ETC.	37.00	
(NOW KNOWN AS CORDEIRO, MARY AND SANWA BANK CALIFORNIA, FORMERLY LLOYDS BANK CALIFORNIA, FORMERLY FIRST WESTERN BANK AND TRUST CO, AS TRUSTEE PURSUANT TO LAST WILL AND TESTAMENT OF TONY CORDEIRO, DECEASED		
TRANSFERRED TO CORDEIRO, MARY AND SANWA BANK CALIFORNIA, ETC.	-37.00	
TOTAL		0.00
CORDEIRO, MARY AND SANWA BANK CALIFORNIA, FORMERLY LLOYDS BANK CALIFORNIA, FORMERLY FIRST WESTERN BANK AND TRUST CO, AS TRUSTEE PURSUANT TO LAST WILL AND TESTAMENT OF TONY CORDEIRO, DECEASED		
TRANSFERRED FROM CORDEIRO, MARY & LLOYDS BANK CALIFORNIA, ETC.	37.00	
TRANSFERRED IN PART TO CORDEIRO, MARY	-18.50	
TRANSFERRED IN PART TO SANWA BANK CALIFORNIA, FORMERLY LLOYDS BANK CALIFORNIA, FOMERLY FIRST WESTERN BANK AND TRUST CO, AS TRUSTEE PURSUANT TO LAST WILL AND TESTAMENT OF TONY CORDEIRO, DECASED	-18.50	
TOTAL		0.00
CORNING TRUST		
SUCCESSOR IN PART TO ZANE LIVING TRUST (2/20/2013)	3.75	
TOTAL		3.75
CORPORATION OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS (RAY MITCHELL, TENANT)]	31.00	
SUCCESSOR TO MIERSMA, HARRY C AND DOROTHY	10.00	
DEDICATED IN PART TO CERRITOS, CITY OF	-31.00	
SOLD TO COAST PACKING CO	-10.00	
TOTAL		0.00
COTTON, HARRY LEE AND DORIS L	4.00	
SOLD TO ABC UNIFIED SCHOOL DISTRICT	-4.00	
TOTAL		0.00
COUNTY OF LOS ANGELES		
(SEE LISTING UNDER LOS ANGELES, COUNTY OF)		
COUNTY WATER CO	224.00	
SUCCESSOR TO BUTLER, THADDEUS L AND BARBARA A	10.00	
SUCCESSOR TO CENTER CITY WATER CO	69.00	
SUCCESSOR TO CITY FARMS MUTUAL WATER CO NO 1	30.00	
SUCCESSOR TO REEVES TRACT WATER CO	2.00	
SUCCESSOR TO RODRIGUES, JOHN AND JOHN RODRIGUES, JR	1.00	
SUCCESSOR TO SYKES REALTY CO, ET AL	29.00	
SUCCESSOR IN PART TO DOMINGUEZ WATER CORP	114.00	
SUCCESSOR IN PART TO PLUNKETT WATER CO (09-6-68)	20.00	
SUCCESSOR IN PART TO PLUNKETT WATER CO (10-1-78)	2.00	
SOLD IN PART TO DOMINGUEZ WATER CORP	-23.00	
SOLD IN PART TO LAKEWOOD, CITY OF	-22.00	
TRANSFERRED TO NORWALK, CITY OF VIA EMINENT DOMAIN	-456.00	
TOTAL		0.00
COWLITZ AMUSEMENTS, INC	4.00	
(LA MIRADA DRIVE-IN THEATRE, TENANT)		
SOLD TO SANTA FE SPRINGS, CITY OF	-4.00	
TOTAL		0.00
COY, PETE	22.00	
SOLD TO ERICKSON, JOHN A	-22.00	
TOTAL		0.00
CRANDELL, E E AND F J		
SUCCESSOR TO BAILEY, K R AND VIRGINIA R	1.00	
(NOW KNOWN AS CRANDELL, F J)		
TRANSFERRED TO CRANDELL, F J	-1.00	
TOTAL		0.00
CRANDELL, F J		
(FORMERLY KNOWN AS CRANDELL, EE AND F J)		
TRANSFERRED FROM CRANDELL, EE AND F J	1.00	
TOTAL		1.00
CREST HOLDING CORP	16.00	
SOLD TO PARADISE MEMORIAL PARK	-16.00	
TOTAL		0.00
CULBERTSON, KATHERINE M	2.00	
SOLD TO BOWEN, EDWARD H	-1.00	
SOLD TO BUELL, MARY DOLORES	-1.00	
TOTAL		0.00
CULP, ORLYN L AND GARNETTE	17.00	
SOLD TO BEVERLY PARK PLACE	-17.00	
TOTAL		0.00
CURRY, EVERETT AND MARGUERITE	2.00	
SOLD TO COAST PACKING CO	-2.00	
TOTAL		0.00
DAIRY, D V		
(SEE LISTING UNDER LEAL, FRANK C AND LOIS L)		
DAIRY VALLEY, CITY OF		
(NOW KNOWN AS CERRITOS, CITY OF)		
DAIRY VALLEY ASSOCIATES		
SUCCESSOR TO WILSON, MELVIN L AND MARIE	1.00	
SOLD TO PECOS PARK	-1.00	
TOTAL		0.00
DAIRYMENS FERTILIZER CO-OP, INC	1.00	
SOLD TO CALIFORNIA, STATE OF-(DIVISION OF HIGHWAY)	-1.00	
TOTAL		0.00
DANIELS, G A		
SUCCESSOR TO BEUSING, J	1.00	
SOLD TO LAKEWOOD, CITY OF (11-7-67)	-1.00	
TOTAL		0.00
CHANGED (12-18-70) TO CONTINENTAL CANINES, INC WITH ZERO WATER RIGHT	0.00	
DANIELS, NOBLE G		
(SEE LISTING UNDER MARCROFT, HAROLD AND MARJORIE)		
DAON CORPORATION		
SUCCESSOR TO UNIROYAL TIRE COMPANY – DIVISION OF UNIROYAL, INC	656.00	
SOLD TO MORIARTY, W PATRICK	-656.00	
TOTAL		0.00
DARLING-DELAWARE CO, INC		
SUCCESSOR TO CBP RESOURCES, INC	58.00	
SUCCESSOR IN PART TO BAKER COMMODITIES, INC	59.00	
TOTAL	117.00	
DAUGHERTY, JULES E AND HATTIE L		
SUCCESSOR TO MUELLER, JULES A AND DAVID M REED	1.00	
SOLD TO COAST PACKING CO	-1.00	
TOTAL		0.00
DAVIS, JOHN A	0.00	
TOTAL		0.00
DEANS, B ROZALPHA		
APPORTIONED FROM CLANTON, INA R, ESTATE OF	32.00	
SOLD TO ZANE, STEVE	-32.00	
TOTAL		0.00
DE BIE, HENRY JR AND JESSIE	14.00	
SOLD TO PRESLEY DEVELOPMENT CO	-14.00	
TOTAL		0.00
DE CORDOVA, JUAN		
SUCCESSOR TO FORESTA, FRANCIS A AND VALERIE MAE	19.00	
SUCCESSOR TO MORRIS, WILLIAM R	1.00	
SUCCESSOR TO WEBSTER, C D	1.00	
SOLD TO LAKEWOOD, CITY OF	-21.00	
TOTAL		0.00
DEETH, CLIFFORD S	0.00	
TOTAL		0.00
DE GROOT, ERNEST AND DOROTHY	65.00	
DEDICATED TO CERRITOS, CITY OF	-65.00	
TOTAL		0.00
DE GROOT, PETE	12.00	
SOLD TO ROCKVIEW DAIRIES, INC	-12.00	
TOTAL		0.00
DE GROOT, PIER AND FAY	17.00	
SOLD TO LANDMARK ESTATES, INC	-17.00	
TOTAL		0.00

DE HOOG, MARTIN AND ADRIANA	10.00	
SOLD TO PRESLEY DEVELOPMENT CO	-10.00	
TOTAL		0.00
DE JAGER, EDWARD AND ALICE	30.00	
SOLD TO GEORGIA LAND CO	-30.00	
TOTAL		0.00
DE JONG, CORNELIUS AND GRACE	10.00	
SOLD TO SOMERSET LAND CO	-10.00	
TOTAL		0.00
DE JONG, JAKE AND LENA	17.00	
(FRANK A GONSALVES, TENANT AS TO 8 ACRE-FEET OF WATER RIGHT)		
DEDICATED TO CERRITOS, CITY OF	-17.00	
TOTAL		0.00
DE KRIEK, WILLIAM		
(SEE LISTING UNDER VAN DAM, GERRIT AND GRACE)		
DEL AMO DAIRY		
(SEE LISTING UNDER HAAKMA, ED AND SJANA)		
DEL AMO ESTATE CO	0.00	
TOTAL		0.00
DELAURA, EVERETT AND DOLORES		
SUCCESSOR TO GARCIA, A G	0.00	
(NOW KNOWN AS CERRITOS FERTILIZER CO)		
TRANSFERRED TO CERRITOS FERTILIZER CO	-0.00	
TOTAL		0.00
DE MARCO, JOE AND CONCETTA	1.00	
SOLD TO TEXACO, INC	-1.00	
TOTAL		0.00
DE MARTINI, LOUIS F		
(SEE LISTING UNDER SOUTHERN CALIFORNIA EDISON CO)		
DE MELLO, MARY A	13.00	
SOLD TO LARWIN CO	-13.00	
TOTAL		0.00
DEN HOLLANDER, JOHN		
(SEE LISTING UNDER DYKSTRA, JAMES AND DORA)		
DEPARTMENT OF WATER AND POWER OF THE CITY OF LOS ANGELES, BY REASON OF CHARTER PROVISIONS, HAS THE MANAGEMENT AND CONTROL OF WATER RIGHTS OWNED BY THE CITY OF LOS ANGELES		
(SEE LISTING UNDER LOS ANGELES, CITY OF)		
DERBY CORP, ET AL		
SUCCESSOR TO SHAPELL, NATHAN	23.00	
DEDICATED TO CERRITOS, CITY OF	-23.00	
TOTAL		0.00
DEVER, RUTH E	0.00	
(ORANGE COUNTY NURSERY, INC, TENANT)		
TOTAL		0.00
DE VOSS, ALICE		
(FORMERLY DE VOSS, ANDREW AND ALICE)	9.00	
SOLD TO CERRITOS, CITY OF	-9.00	
TOTAL		0.00
DE VOSS, ANDREW AND ALICE	29.00	
(ARTHUR DE VOSS AND ARTHUR ATSMA, TENANTS)		
DEDICATED IN PART TO CERRITOS, CITY OF (1970-71)	-7.00	
SOLD IN PART TO CERRITOS, CITY OF (1975-76)	-13.00	
(NOW KNOWN AS DE VOSS, ALICE)		
TRANSFERRED TO DE VOSS, ALICE	-9.00	
TOTAL		0.00
DE VRIES, AGNES	13.00	
(GERRIT ANKER, TENANT)		
SOLD TO CARDOZO HOMES, INC	-13.00	
TOTAL		0.00
DE VRIES, DICK AND THERESA	8.00	
SOLD TO CARDOZO HOMES, INC	-8.00	
TOTAL		0.00
DE VRIES, GERRIT AND CLAZIENA	14.00	
DEDICATED TO CERRITOS, CITY OF	-14.00	
TOTAL		0.00
DEYAGER, GERRIT AND DENA	0.00	
TOTAL		0.00
D-H INVESTORS		
SUCCESSOR IN PART TO ABEX CORP	25.88	
SOLD TO SOMERSET MUTUAL WATER CO	-25.88	
TOTAL		0.00
DINKELSPIEL, LLOYD W JR		
(SEE LISTING UNDER EHRMAN, FLORENCE HELLMAN)		
DISTRICT VII, DIVISION OF HIGHWAYS OF THE STATE OF CALIFORNIA DEPARTMENT OF PUBLIC WORKS		
(SEE LISTING UNDER CALIFORNIA, STATE OF)		
DOLAN, JAMES E AND PATRICIA ANN AND TOMAS, P		
SUCCESSOR TO SCHOUTEN, HANS AND BARBARA	2.00	
TOTAL		2.00
DOMINGUEZ ESTATE CO	0.00	
TOTAL		0.00
DOMINGUEZ SEMINARY AND CLARETIAN JR SEMINARY	89.00	
SOLD TO INGLEWOOD PARK CEMETERY ASSOC	-89.00	
TOTAL		0.00
DOMINGUEZ WATER CO		
(FORMERLY KNOWN AS DOMINGUEZ WATER CORP)		
TRANSFERRED FROM DOMINGUEZ WATER CORP	6,410.00	
SUCCESSOR TO AMERON FABRICATION PRODUCTS	150.00	
SUCCESSOR TO CARSON ESTATE CO	111.00	
SUCCESSOR IN PART TO COUNTY WATER CO	23.00	
SOLD TO COUNTY WATER CO	-114.00	
SOLD TO LONG BEACH, CITY OF	-100.00	
(DOMINGUEZ WATER CO MERGED WITH AND INTO CALIFORNIA WATER SERVICE CO)		
TRANSFERRED TO CALIFORNIA WATER SERVICE CO (DOMINGUEZ)	-6,480.00	
TOTAL		0.00
DOMINGUEZ WATER CORP	6,410.00	
(NOW KNOWN AS DOMINGUEZ WATER CO)		
TRANSFERRED TO DOMINGUEZ WATER CO)	-6,410.00	
TOTAL		0.00
DOMTAR GYPSUM, INC		
(FORMERLY KNOWN AS GENSTAR GYPSUM PRODUCTS CO)		
TRANSFERRED FROM GENSTAR GYPSUM PRODUCTS CO	1,854.00	
SOLD TO LONG BEACH, CITY OF	-1,854.00	
TOTAL		0.00
DOTINGA, PETER AND TENA	7.00	
(DAVE BAJEMA, TENANT)		
SOLD TO LINWOOD HOMES, INC	-7.00	
TOTAL		0.00
DOUGHERTY, ROBERT L	0.00	
TOTAL		0.00
DOWNEY CEMETERY DISTRICT	17.00	
SOLD TO DOWNEY, CITY OF	-17.00	
TOTAL		0.00
DOWNEY, CITY OF	4,570.00	
SUCCESSOR TO BURNS, G CRESWELL & HELEN RISLOW	31.00	
SUCCESSOR TO DOWNEY CEMETERY DISTRICT	17.00	
SUCCESSOR TO DOWNEY RIO HONDA GOLF COURSE	354.00	
SUCCESSOR TO DOWNEY VALLEY WATER CO	70.00	
SUCCESSOR TO INGLEWOOD, CITY OF	930.00	
SUCCESSOR TO MOOSCHEKIAN, REUBEN	12.00	
SUCCESSOR TO MURATA, DAISAKU, ET AL	12.00	
SUCCESSOR TO POMERING TRACT WATER ASSOC	26.00	
SUCCESSOR TO RANCHO SANTA GERTRUDES MUTUAL WATER CO	38.00	
SUCCESSOR TO WESTERN WATER CO	1,219.00	
SUCCESSOR TO WINSLOW, SUSAN C	12.00	
SUCCESSOR IN PART TO ABEX CORP	16.12	
SUCCESSOR IN PART TO CORDEIRO, MARY	18.50	
SUCCESSOR IN PART TO LAKEWOOD, CITY OF	438.00	
SUCCESSOR IN PART TO LOS ANGELES COUNTY RANCHO LOS AMIGOS	100.00	
SUCCESSOR IN PART TO PARK WATER CO	8,600.00	
SUCCESSOR IN PART TO ROCKVIEW DAIRIES, INC	90.00	
ASSIGNED FROM LOS ANGELES COUNTY-DOWNEY REGIONAL PUBLIC RECREATION AREA AUTHORITY	354.00	
ASSIGNED TO DOWNEY RIO HONDO GOLF COURSE	-354.00	
TOTAL		16,553.62
DOWNEY FERTILIZER CO		
(SEE LISTING UNDER DOWNEY LAND CO)		
DOWNEY LAND CO	81.00	
(DOWNEY FERTILIZER CO, TENANT)		
SOLD TO COAST PACKING CO	-81.00	
TOTAL		0.00
DOWNEY RIO HONDO GOLF COURSE		
ASSIGNED FROM DOWNEY, CITY OF	354.00	
SOLD TO DOWNEY, CITY OF	-354.00	
TOTAL		0.00
DOWNEY VALLEY WATER CO	70.00	
SOLD TO DOWNEY, CITY OF	-70.00	
TOTAL		0.00
DROST, JIM	0.00	
TOTAL		0.00
DUNCAN, JOE F & GRACE V AND ELMER J & LELIA M DAVIS		
SUCCESSOR TO GATZ, MARTHA T	12.00	
SOLD TO CERRITOS, CITY OF	-12.00	
TOTAL		0.00
DUNN INDUSTRIAL PROPERTIES CORP		
SUCCESSOR TO NEW ENGLAND LIFE INSURANCE CO	19.00	
SOLD TO SANTA FE SPRINGS, CITY OF	-19.00	
TOTAL		0.00
DUNN, L AND M		
SUCCESSOR TO SMITH, WIRT	11.00	
SUCCESSOR TO VAN DEN RAADT, JOHN	4.00	
DEDICATED IN PART TO CERRITOS, CITY OF	-4.00	
SOLD IN PART TO SANTA FE SPRINGS, CITY OF	-11.00	
TOTAL		0.00
DYKSTRA, JAMES AND DORA	5.00	
(JOHN DEN HOLLANDER, TENANT)		
SOLD TO CERRITOS V	-5.00	
TOTAL		0.00
DYKSTRA, JOHN AND WILMA	42.00	
DEDICATED TO CERRITOS, CITY OF	-42.00	
TOTAL		0.00
DYT, COR AND ANDY	5.00	
SOLD TO SOMERSET MUTUAL WATER CO	-5.00	
TOTAL		0.00
EAGLE PICHER CO	113.00	
SOLD TO LEWIS FOOD CO	-113.00	
TOTAL		0.00
EAGLETON, GAIL H	54.00	

SUCCESSOR TO ROGERS, PATRICIA L DAVIS	2.00	
(NOW KNOWN AS EAGLETON, MARGARET S)		
TRANSFERRED TO EAGLETON, MARGARET S	-56.00	
TOTAL		0.00
EAGLETON, MARGARET S		
(FORMERLY KNOWN AS EAGLETON, GAIL H)		
TRANSFERRED FROM EAGLETON, GAIL H	56.00	
SOLD TO SANTA FE SPRINGS, CITY OF	-56.00	
TOTAL		0.00
EASTMAN, EMILY AND EMILY ENGLER AND RUDOLPH ENGLER		
TRANSFERRED FROM ENGLER, EMMA	8.00	
TRANSFERRED TO ENGLER RENTALS I	-8.00	
TOTAL		0.00
ECOGAS INC.		
SUCCESSOR TO CECC, LLC (10-1-14)	1.00	
SUCCESSOR TO TUCKER, WILLIAM M., AND/OR BOBBY RAY ROBERTSON, JR. (7/1/17)	7.00	
SUCCESSOR TO RANDALL, VILLIS FAMILY TRUST (7/1/17)	4.00	
SUCCESSOR TO KOTAKE, MASAO AS TRUSTEE OF THE MASAO KOTAKE INTER VIVOS TRUST (1/29/18)	27.97	
SOLD TO LIBERTY UTILITIES CORPORATION (2/6/17)	-27.00	
SOLD TO LIBERTY UTILITIES CORPORATION (2/14/19)	-11.00	
SUCCESSOR TO HUGH W GRAHAM OR MARCIA K GRAHAM, TRUSTEES OF THE GRAHAM FAMILY REVOCABLE TRUST DATED 3-6-91	6.00	
SOLD TO OU2 ENVIRONMENTAL REMEDIATION TRUST (5/19/20)	-7.97	
TOTAL		0.00
EDWARDS, ART		
SUCCESSOR TO POWELL, C H	1.00	
SOLD TO STANDARD BRANDS PAINT CO, INC	-1.00	
TOTAL		0.00
EHRMAN, FLORENCE HELLMAN; I W HELLMAN, JR; FREDERICK J HELLMAN; MARCO F HELLMAN; CLARENCE E HELLER; ALFRED HELLER; ELIZABETH HELLER; ELINOR R HELLER AND WELLS FARGO BANK, AS CO-EXECUTORS OF THE ESTATE OF EDWARD H HELLER, DECEASED; LLOYD W DINKELSPIEL, JR, WILLIAM H GREEN AND WELLS FARGO BANK, AS CO-EXECUTORS OF THE ESTATE OF LLOYD W DINKELSPIEL, DECEASED; WELLS FARGO BANK, AS TRUSTEE UNDER THE TRUST CREATED BY THE WILL OF FLORENCE H DINKELSPIEL, DECEASED (UNION OIL OF CALIFORNIA, LESSEE AS TO 190 ACRE-FEET OF WATER RIGHT AND AS TO 152 ACRE-FEET OFALLOWED PUMPING ALLOCATION)	444.00	
SOLD IN PART TO CABOT, CABOT AND FORBES	-305.00	
SOLD IN PART TO UNION OIL CO OF CALIFORNIA	-139.00	
TOTAL		0.00
11409 CARSON LTD (C/O SPONGBERG, KIRKLAND AND BLACK)		
SUCCESSOR TO SHAYMAN, JOHN W	2.00	
SOLD TO LAKEWOOD, CITY OF	-2.00	
TOTAL		0.00
EL RANCHO UNIFIED SCHOOL DISTRICT	55.00	
TOTAL		55.00
ELSON, BERTON		
(SEE LISTING UNDER WINSLOW, D P AND DOROTHY C)		
EMBLEM DEVELOPMENT CORP		
SUCCESSOR TO FRANKS, RICHARD A AND PHYLLIS H	3.00	
DEDICATED TO CERRITOS, CITY OF	-3.00	
TOTAL		0.00
EMOTO, JOHN H		
(FORMERLY KNOWN AS EMOTO, JOHN H AND SHIZUKO)		
TRANSFERRED FROM EMOTO, JOHN H AND SHIZUKO	2.00	
TOTAL		2.00
EMOTO, JOHN H AND SHIZUKO		
SUCCESSOR TO NAKAMURA, SAM AND TOKIKO	2.00	
(NOW KNOWN AS EMOTO, JOHN H)		
TRANSFERRED TO EMOTO, JOHN H	-2.00	
TOTAL		0.00
ENFIELD, ADDIE L		
(SEE LISTING UNDER STAMPS, JAMES L, ETC)		
ENGLAND, JOHN W AND CONSUELLO		
(SEE LISTING UNDER JENKINS REALTY MUTUAL WATER CO)		
ENGLER, EMILY		
(SEE LISTING UNDER EASTMAN, EMILY AND EMILY ENGLER AND RUDOLH ENGLER)		
ENGLER, EMMA	8.00	
(MORRIS WEISS, TENANT)		
TRANSFERRED TO EASTMAN, EMILY AND EMILY ENGLER AND RUDOLPH ENGLER	-8.00	
TOTAL		0.00
ENGLER, RUDOLPH		
(SEE LISTING UNDER EASTMAN, EMILY AND EMILY ENGLER AND RUDOLH ENGLER)		
ENGLER RENTALS I		
TRANSFERRED FROM EASTMAN, EMILY AND EMILY ENGLER AND RUDOLPH ENGLER	8.00	
SOLD TO FRANCIS CAROL JEANNE, TRUSTEE OF THE CAROL JEANNE FRANCIS SEPARATE PROPERTY TRUST	-8.00	
TOTAL		0.00
EQUILON ENTERPRISES, LLC		
SUCCESSOR TO SHELL OIL CO	6.00	
TOTAL		6.00
EQUITY FUNDING DEVELOPMENT CORP		
SUCCESSOR TO STIEFEL, V C	3.00	
SOLD TO INGLEWOOD, CITY OF	-3.00	
TOTAL		0.00
ERICKSON, JOHN A		
SUCCESSOR TO COY, PETE	22.00	
SUCCESSOR TO PLUNKETT, DONALD R	22.00	
SOLD TO BELLFLOWER HOME GARDEN WATER CO	-20.00	
SOLD TO BELLFLOWER-SOMERSET MUTUAL WATER CO	-22.00	
SOLD TO PLUNKETT, DONALD R	-2.00	
TOTAL		0.00
ERICKSON, JOHN E		
SUCCESSOR TO FIRST CHRISTIAN CHURCH OF CERRITOS	4.00	
SOLD TO BELLFLOWER-SOMERSET MUTUAL WATER CO	-2.00	
SOLD TO LANGSLET, C ROBERT AND SON, INC	-2.00	
TOTAL		0.00
ESCOBAR, ANTHONY F AND EVA M	11.00	
(HENRY KAMPEN, TENANT)		
SOLD TO CERRITOS, CITY OF	-11.00	
TOTAL		0.00
EUCLID BALL CO		
SUCCESSOR TO BANGMA, SAM AND IDA	14.00	
SOLD TO MESA-BERGER CO	-14.00	
TOTAL		0.00
EXCELSIOR UNION HIGH SCHOOL DISTRICT	305.00	
SOLD IN PART TO ABC UNIFIED SCHOOL DISTRICT	-163.00	
SOLD IN PART TO NORWALK-LA MIRADA UNIFIED SCHOOL DISTRICT	-142.00	
TOTAL		0.00
EXIDE TECHNOLOGIES		
NAME CHANGE FROM GNB INC.		
TRANSFERRED FROM GNB INC.	62.00	
TOTAL		62.00
F & P CONSTRUCTION CO		
SUCCESSOR IN PART TO GONSALVES, ELVIRA	17.00	
SOLD TO SOUTHERN PACIFIC TRANSPORTATION CO	-17.00	
TOTAL		0.00
FARMERS AND MERCHANTS BANK OF LONG BEACH		
SUCCESSOR TO NIEKERK, SIMON S AND ROSE	3.00	
SOLD TO CERRITOS BUSINESS CENTER	-3.00	
TOTAL		0.00
FARMERS AND MERCHANTS TRUST CO OF LONG BEACH		
SUCCESSOR TO LAKE CONSTRUCTION CO	9.00	
SUCCESSOR TO WALKER, KENNETH G	5.00	
SOLD TO CALIFORNIA AMERICAN WATER COMPANY (7/1/17)	-14.00	
TOTAL		0.00
FARRIS, KENNETH A AND WANDA	1.00	
SOLD TO MUELLER, JULES A AND DAVID M REED	-1.00	
TOTAL		0.00
FEDERAL ICE AND COLD STORAGE CO	74.00	
SOLD TO VERNON PROPERTIES	-74.00	
TOTAL		0.00
FEDERAL PAPER BOARD COMPANY, INC		
SUCCESSOR TO CONTINENTAL CAN CO, INC	757.00	
SOLD TO NEWARK GROUP INDUSTRIES, INC	-757.00	
TOTAL		0.00
FEDERATED DEPARTMENT STORES, INC		
SUCCESSOR TO MAPE INDUSTRIES	2.00	
SOLD TO CERRITOS, CITY OF	-2.00	
TOTAL		0.00
FEKKES, FRED		
(SEE LISTING UNDER STEFANI, STEVE SR AND DORA)		
FELSENTHAL, JULIUS AND MRS JULIUS FELSENTHAL, AKA MARGA FELSENTHAL	1.00	
SOLD TO SIEVERS, ROBERT L AND BETTY	-1.00	
TOTAL		0.00
FERNANDEZ, TONY		
(SEE LISTING UNDER JONES, U STEWART AND DOROTHY E)		
FERREIRA, JOE C AND CAROLINA	30.00	
(JOE C FERREIRA AND JOE C FERREIRA, JR, OPERATORS OF WELL FACILITY)		
SOLD TO KAISER AETNA	-30.00	
TOTAL		0.00
FERREIRA, MARY A	1.00	
(JOE LUCAS, TENANT)		
(SEE ALSO LISTING UNDER GONSALVES, JACK)		
SOLD TO PRESLEY DEVELOPMENT CO	-1.00	
TOTAL		0.00
FEUZ, JOHN, JR	0.00	
TOTAL		0.00
FIBREBOARD CORP		
(FORMERLY KNOWN AS FIBREBOARD PAPER PRODUCTS CORP)		
TRANSFERRED FROMM FIBREBOARD PAPER PRODUCTS CORP	1,217.00	
SOLD TO PACIFIC COAST PACKAGING CORP	-1,217.00	
TOTAL		0.00
FIBREBOARD PAPER PRODUCTS CORP	1,217.00	
(NOW KNOWN AS FIBREBOARD CORP)		

TRANSFERRED TO FIBREBOARD CORP	-1,217.00	
TOTAL		0.00
FIEN, ABE	0.00	
TOTAL		0.00
FIKSE, ALFRED JR AND AGGIE	2.00	
SUCCESSOR TO VIERSTRA, SIEGER AND NELLIE G	10.00	
SOLD IN PART TO ABC UNIFIED SCHOOL DISTRICT	-10.00	
SOLD IN PART TO PRESLEY DEVELOPMENT CO	-2.00	
TOTAL		0.00
FIKSE, HENRY AND JENNIE	4.00	
DEDICATED TO CERRITOS, CITY OF	-4.00	
TOTAL		0.00
FILTROL CORP	456.00	
SOLD TO AQUA CAPITAL MANAGEMENT LP	-456.00	
TOTAL		0.00
FIRESTONE TIRE AND RUBBER CO, THE	1,229.00	
SOLD TO HON INDUSTRIES, INC	-1,229.00	
TOTAL		0.00
FIRST BAPTIST CHURCH OF CERRITOS		
SUCCESSOR TO CLOO, JACOB AND GRACE	13.00	
SOLD TO TE VELDE, HARM AND ZWAANTINA	-13.00	
TOTAL		0.00
FIRST CHRISTIAN CHURCH OF CERRITOS		
SUCCESSOR TO RAMSEY, ARTHUR D AND JAMES A VIA HAL REES	4.00	
SOLD TO ERICKSON, JOHN E	-4.00	
TOTAL		0.00
FIRST INTERSTATE BANK		
SUCCESSOR TO OCCIDENTAL LIFE INSURANCE CO	8.00	
SOLD TO HUNTINGTON PARK, CITY OF	-8.00	
TOTAL		0.00
FIRST WESTERN BANK AND TRUST CO		
(SEE LISTING UNDER CORDEIRO, MARY)		
FISHER, CLARE	0.00	
TOTAL		0.00
FLESCH, ELIZABETH, JAMES FLESCH, MARGARET FLESCH, THEODORE FLESCH, ERNEST D ROTH AND EVA ROTH, DBA NORWALK MOBILE LODGE (NOW KNOWN AS FLESCH, ELIZABETH, ET AL)	14.00	
TRANSFERRED TO FLESCH, ELIZABETH, ET AL	-14.00	
TOTAL		0.00
FLESCH, ELIZABETH, ET AL		
(FORMERLY FLESCH, ELIZABETH, JAMES FLESCH, MARGARET FLESCH, THEODORE FLESCH, ERNEST D ROTH AND EVA ROTH, DBA NORWALK MOBILE LODGE)		
TRANSFERRED FROM FLESCH, ELIZABETH, JAMES FLESCH, MARGARET FLESCH, THEODORE FLESCH, ERNEST D ROTH AND EVA ROTH, DBA NORWALK MOBILE LODGE	14.00	
TOTAL		14.00
FLETCHER, LYNN W AND ALBERTA C		
APPORTIONED FROM CLANTON, INA R, ESTATE OF	32.00	
SOLD TO LYNWOOD, CITY OF	-32.00	
TOTAL		0.00
FLINTKOTE CO, THE	2,054.00	
SOLD IN PART TO GENSTAR GYPSUM PRODUCTS CO	-1,854.00	
SOLD IN PART TO SANTA FE SPRINGS, CITY OF	-200.00	
TOTAL		0.00
FOOTBRIDGE 1 TRUST		
SUCCESSOR IN PART TO ZANE LIVING TRUST (2/20/2013)	3.75	
TOTAL		3.75
FORD MOTOR CO	9.00	
SOLD IN PART TO NORTHROP CORP	-4.50	
TOTAL		4.50
FOREMAN, ROBERT G		
(SEE LISTING UNDER LAKEWOOD PIPE CO)		
FORESTA, FRANCIS A AND VALERIE MAE		
SUCCESSOR TO SPILLER, GLEN F AND JEAN H	19.00	
SOLD TO DE CORDOVA, JUAN	-19.00	
TOTAL		0.00
FORESTAR (USA) REAL ESTATE GROUP INC.		
SUCCESSOR TO CALIFORNIA DOMESTIC WATER COMPANY (7-1-14)	299.00	
SOLD TO TF HIDDEN CREEKS, L.P.	-299.00	
TOTAL		0.00
FRAMPTON, HARVEY		
SUCCESSOR IN PART TO MURPHY, ELMO D AND EVELINE B	10.00	
SOLD TO MONTEBELLO LAND AND WATER COMPANY (10-28-13)	-10.00	
TOTAL		0.00
FRAMPTON, WILLIAM H		
SUCCESSOR TO RAH ASSOCIATES	25.00	
SOLD TO MONTEBELLO LAND AND WATER COMPANY (10-28-13)	-25.00	
TOTAL		0.00
FRANCIOSI, GUISEPPI AND ALICE	2.00	
SOLD TO MFD-NORWALK	-2.00	
TOTAL		0.00
FRANCIS, CAROL JEANNE, TRUSTEE OF THE CAROL JEANNE FRANCIS SEPARATE PROPERTY TRUST		
SUCCESSOR TO ENGLER RENTALS I	8.00	
SOLD TO LONG BEACH, CITY OF (06/30/2010)	-8.00	
TOTAL		0.00
FRANKS, RICHARD A AND PHYLLIS H		
SUCCESSOR TO HALBURG, CLARENCE THEODORE	3.00	
SOLD TO EMBLEM DEVELOPMENT CORP	-3.00	
TOTAL		0.00
FREIBERG, BRENDA RANDALL		
(SEE LISTING UNDER RANDALL, VILLIS FAMILY TRUST)		
FREITAS, TONY V		
(SEE LISTING UNDER BANK OF AMERICA, ETC)		
FROST, JESS L AND DOLORES		
SUCCESSOR TO YOKOTA, PAUL N AND MIYO	4.00	
SOLD TO SANTA FE SPRINGS, CITY OF	-4.00	
TOTAL		0.00
FUJITA, S	0.00	
TOTAL		0.00
FUKUSHIMA, JUN		
(SEE LISTING UNDER KAWAGUCHI, CHIGE)		
FULTHEIM, PAUL AND HELGA	4.00	
SOLD TO CERRITOS JOINT VENTURE NO 2	-4.00	
TOTAL		0.00
FUMI GARDEN FARMS, INC		
(SEE LISTING UNDER SOUTHERN CALIFORNIA EDISON CO)		
(SEE ALSO LISTING UNDER YAMAMOTO, GEORGE & ALICE)		
GABBY, LOUISE, INC	46.00	
(ARTHUR GILBERT AND ASSOCIATES, TENANT)		
SOLD TO SANTA FE SPRINGS PROPERTIES	-46.00	
TOTAL		0.00
GAMBONI, VICTOR E AND BARBARA H	22.00	
(JAKE J ALEWYN AND MRS JAKE J ALEWYN AKA NORMALIE MAY ALEWYN, TENANTS AS TO 13 ACRE-FEET OF WATER RIGHT AND 10 ACRE-FEET OF ALLOWED PUMPING ALLOCATION)		
CONDEMNED AND TRANSFERRED TO CALIFORNIA, STATE OF (HIGHWAYS)	-22.00	
TOTAL		0.00
GANDOLFO, NICK AND PALMERA	4.00	
(NOW KNOWN AS GANDOLFO, NICK, ESTATE OF)		
TRANSFERRED TO GANDOLFO, NICK, ESTATE OF	-4.00	
TOTAL		0.00
GANDOLFO, NICK, ESTATE OF		
(FORMERLY KNOWN AS GANDOLFO, NICK AND PALMERA)		
TRANSFERRED FROM GANDOLFO, NICK AND PALMERA	4.00	
SOLD IN PART TO CERRITOS, CITY OF	-3.00	
SOLD IN PART TO CHANG, I-HSIN AND ASSOCIATES	-1.00	
TOTAL		0.00
GARCIA, A G		
SUCCESSOR TO VAN HAASTER, JAKE AND GERADA	0.00	
SOLD TO DELAURA, EVERETT AND DELORES	-0.00	
TOTAL		0.00
GARRETT, FREDDIE A AND VIVIAN MARIE	5.00	
SOLD TO JOHNSTON, DELBERT L, CAROL J JOHNSTON, REX D JOHNSTON AND JUDITH A JOHNSTON	-5.00	
TOTAL		0.00
GATZ, MARTHA	12.00	
SOLD TO DUNCAN, JOE F & GRACE V AND ELMER J & LELIA M DAVIS	-12.00	
TOTAL		0.00
GENERAL DYNAMICS CORP	540.00	
SOLD TO LAKEWOOD, CITY OF	-540.00	
TOTAL		0.00
GENERAL TELEPHONE CO OF CALIFORNIA	2.00	
DEDICATED TO CERRITOS, CITY OF	-2.00	
TOTAL		0.00
GENSTAR GYPSUM PRODUCTS CO		
SUCCESSOR IN PART TO FLINTKOTE CO	1,854.00	
(NOW KNOWN AS DOMTAR GYPSUM, INC)		
TRANSFERRED TO DOMTAR GYPSUM, INC	-1,854.00	
TOTAL		0.00
GEORGIA LAND CO		
SUCCESSOR TO DE JAGER, EDWARD AND ALICE	30.00	
DEDICATED TO CERRITOS, CITY OF	-30.00	
TOTAL		0.00
GIACOMI, ALFRED AND JENNIE	46.00	
SOLD IN PART TO LUTHERAN CHURCH	-15.00	
SOLD IN PART TO PRESLEY DEVELOPMENT CO	-31.00	
TOTAL		0.00
GIBBONS, ROBERT L		
SUCCESSOR IN PART TO HOUSEMAN, THEODORE R AND LEONA M	5.00	
SOLD TO CERRITOS, CITY OF	-5.00	
TOTAL		0.00
GILBERT, ARTHUR AND ASSOCIATES		
(SEE LISTING UNDER GABBY LOUISE, INC)		
GLEN-HAGEN DEVELOPMENT CO		
SUCCESSOR TO ZWIER, AREND	11.00	
SOLD TO MAYWOOD MUTUAL WATER CO NO 3	-11.00	
TOTAL		0.00
GNB BATTERIES, INC		
SUCCESSOR TO GOULD, INC	62.00	
(NOW KNOWN AS GNB INC)		
TRANSFERRED TO GNB INC	-62.00	
TOTAL		0.00

GNB INC		
(FORMERLY GNB BATTERIES, INC)		
TRANSFERRED FROM GNB BATTERIES INC	62.00	
NAME CHANGED TO EXIDE TECHNOLOGIES		
TRANSFERRED TO EXIDE TECHNOLOGIES	-62.00	
TOTAL		0.00
GODINHO, MARY	0.00	
TOTAL		0.00
GODINHO, PAULINE	25.00	
(JOE C GODINHO AND JOHN C GODINHO, JR, DBA GODINHO BROS DAIRY, TENANTS)		
(NOW KNOWN AS GODINHO, PAULINE, ESTATE OF)		
TRANSFERRED TO GODINHO, PAULINE, ESTATE OF	-25.00	
GODINHO, PAULINE, ESTATE OF		
(FORMERLY KNOWN AS GODINHO, PAULINE)		
TRANSFERRED FROM GODINHO, PAULINE	25.00	
SOLD IN PART TO TROY HOMES INC	-15.00	
SOLD IN PART TO TITLE INSURANCE AND TRUST CO	-10.00	
TOTAL		0.00
GOEDHART, HARRY N, HENRY OTTO GOEDHART, HILBRAND JOHN GOEDHART, JOHN GOEDHART, OTTO GOEDHART, JR, PETER GOEDHART, AND HELEN		
GOEDHART VAN EIK (PARAMOUNT FARMS, TENANT)	17.00	
SOLD TO MONTGOMERY ROSS FISHER, INC	-17.00	
TOTAL		0.00
GOEDHART, REIMER	10.00	
SOLD TO AVERY, MARGARET M	-10.00	
TOTAL		0.00
GOLDEN STATE WATER COMPANY		
SUCCESSOR TO SOUTHERN CALIFORNIA WATER COMPANY (NAME CHANGE)	16,439.20	
TOTAL		16,439.20
GOLDEN WEST REFINING CO		
SUCCESSOR TO GULF OIL CORP	1,538.00	
SOLD IN PART TO LAKEWOOD, CITY OF	-400.00	
SOLD IN PART TO WESTERN WATER CO:		
DOCUMENT DATED 09/25/96	-100.00	
DOCUMENT DATED 01/24/97	-200.00	
DOCUMENT DATED 03/24/97	-200.00	
DOCUMENT DATED 05/19/97	-200.00	
DOCUMENT DATED 10/10/97	-378.00	
SOLD IN PART TO LAKEWOOD, CITY OF	-60.00	
TOTAL		0.00
GOLDEN WOOL CO	178.00	
SOLD TO HORSESHOE CATTLE CO	-170.00	
SOLD TO POLO PROPERTIES, LTD	-8.00	
TOTAL		0.00
GONSALVES, ALBERT S AND CAROLINE D	8.00	
SOLD TO STERLING DEVELOPMENT CO	-8.00	
TOTAL		0.00
GONSALVES, ELVIRA		
(FORMERLY KNOWN AS GONSALVES, JOAQUIN AND ELVIRA)		
TRANSFERRED FROM GONSALVES, JOAQUIN AND ELVIRA	22.00	
TRANSFERRED FROM GONSALVES, JACK (MRS)	10.00	
SOLD IN PART TO F & P CONSTRUCTION CO	-17.00	
DEDICATED IN PART TO CERRITOS, CITY OF	-15.00	
TOTAL		0.00
GONSALVES, FRANK A		
(SEE LISTING UNDER BANK OFAMERICA NATIONAL TRUST AND SAVINGS ASSOC, ETC)		
(SEE ALSO LISTING UNDER DE JONG, JAKE AND LENA)		
GONSALVES, JACK (MRS)		
PARTITIONED FROM GONSALVES, JACK, JOE LUCAS, PETE KOOPMANS, MANUEL M SOUZA SR, MANUEL M SOUZA JR, FRANK M SOUZA, LOUIE J SOUZA AND MARY A FERREIRA	10.00	
TRANSFERRED TO GONSALVES, ELVIRA	-10.00	
TOTAL		0.00
GONSALVES, JACK AND MARY	25.00	
WATER RIGHTS FORMERLY LISTED UNDER GONSALVES, JACK AND MARY NOW LISTED UNDER GONSALVES, MARY		
TRANSFERRED TO GONSALVES, MARY	-25.00	
TOTAL		0.00
GONSALVES, JACK, JOE LUCAS, PETE KOOPMANS, MANUEL M SOUZA SR, MANUEL M SOUZA JR, FRANK M SOUZA, LOUIE J SOUZA AND MARY A FERREIRA	44.00	
PARTITIONED TO GONSALVES, JACK (MRS)	-10.00	
PARTITIONED TO KOOPMANS, PETE	-11.00	
PARTITIONED TO LUCAS, JOE	-7.00	
PARTITIONED TO SOUZA, MANUEL M SR, MANUEL M SOUZA JR, FRANK M SOUZA AND LOUIE J SOUZA	-16.00	
TOTAL		0.00
GONSALVES, JOAQUIN AND ELVIRA	22.00	
(NOW KNOWN AS GONSALVES, ELVIRA)		
TRANSFERRED TO GONSALVES, ELVIRA	-22.00	
TOTAL		0.00
GONSALVES, JOE A AND VIRGINIA	10.00	
SOLD TO VISSER BROTHERS	-10.00	
TOTAL		0.00
GONSALVES, MARY		
WATER RIGHTS FORMERLY LISTED UNDER GONSALVES, JACK AND MARY NOW LISTED UNDER GONSALVES, MARY		
TRANSFERRED FROM GONSALVES, JACK AND MARY	25.00	
SOLD TO MAYWOOD MUTUAL WATER CO NO 2	-25.00	
TOTAL		0.00
GOODRICH, B F, CO, THE	415.00	
SOLD TO TELACU INDUSTRIAL PARK	-415.00	
TOTAL		0.00
GOODYEAR TIRE AND RUBBER CO, THE	913.00	
SOLD TO WATT INDUSTRIES, INC	-913.00	
TOTAL		0.00
GORDEN, ERIC AND HILDE	2.00	
SOLD TO CLASSIC DEVELOPMENT CO	-2.00	
TOTAL		0.00
GORDON, FERN ETHYL, AS TO AN UNDIVIDED ONE-HALF INTEREST; FAY G TAWZER AND LAWRENCE R TAWZER, AS TO AN UNDIVIDED ONE-HALF INTEREST	14.00	
SOLD TO R A WATT CO	-14.00	
TOTAL		0.00
GORDON, HUNTLEY L	33.00	
(APPEARING BY AND THROUGH UNITED CALIFORNIA BANK, AS CONSERVATOR OF THE ESTATE OF HUNTLEY L. GORDON)		
SOLD TO HORSESHOE CATTLE CO	-33.00	
TOTAL		0.00
GORDON, NORMAN W, ET AL		
SUCCESSOR IN PART TO KALUSTIAN, HAGOP	8.00	
DEDICATED TO CERRITOS, CITY OF VIA TUSTIN VILLAGE	-8.00	
TOTAL		0.00
GORDON, ROBERT E	4.00	
TOTAL		4.00
GORZEMAN, JOE AND ELSIE	10.00	
SOLD TO KAISER AETNA	-10.00	
TOTAL		0.00
GOULD, INC	62.00	
(FORMERLY KNOWN AS N L INDUSTRIES, METAL DIVISION-WESTERN REGION)		
SOLD TO GNB BATTERIES INC	-62.00	
TOTAL		0.00
GRAHAM, FLORENCE M	6.00	
SOLD TO GRAHAM, HUGH W AND ROBERT K	-6.00	
TOTAL		0.00
GRAHAM, HUGH W		
SUCCESSOR TO GRAHAM, HUGH W AND ROBERT K	6.00	
SOLD TO GRAHAM, HUGH W OR MARCIA K	-6.00	
TOTAL		0.00
GRAHAM, HUGH W AND ROBERT K		
SUCCESSOR TO GRAHAM, FLORENCE M	6.00	
SOLD TO GRAHAM, HUGH W	-6.00	
TOTAL		0.00
GRAHAM, HUGH W OR MARCIA K		
SUCCESSOR TO GRAHAM, HUGH W	6.00	
TRANSFERRED TO HUGH W GRAHAM OR MARCIA K GRAHAM, TRUSTEES OF THE GRAHAM FAMILY REVOCABLE TRUST DATED 3-6-91	-6.00	
TOTAL		0.00
GRANGER, MARIE	0.00	
TOTAL		0.00
GRANT, ROBERT H DEVELOPER, INC		
SUCCESSOR TO SCHWORER, WILLIAM J, JR	31.00	
SUCCESSOR TO SOUZA, NELSON AND MARY	10.00	
SOLD IN PART TO BELINDA WESTERN CO	-31.00	
DEDICATED IN PART TO CERRITOS, CITY OF	-10.00	
TOTAL		0.00
GREAT WESTERN MALTING CO	358.00	
SOLD TO CONAGRA TRADE GROUP, INC.	-358.00	
TOTAL		0.00
GREEN HILLS DEVELOPMENT, INC		
SUCCESSOR TO HAFLINGER, HENRY C AND EMILY	8.00	
SUCCESSOR TO PEREIRA, J C AND EZAURA	27.00	
SOLD TO SHOEMAKER PARTNERSHIP	-8.00	
SOLD TO WESLOCK CO	-27.00	
TOTAL		0.00
GREEN, WILLIAM H		
(SEE LISTING UNDER EHRMAN, FLORENCE HELLMAN, ETC)		
GREENE-HOWARD PETROLEUM CORP		
(SEE LISTING UNDER HATHAWAY CO)		
GREMMIUS, JOHN H AND HENRY W DBA HENRY AND JOHN GREMMIUS		0.00
GRENIER, LEONARD A AND MARIE LOUISE	8.00	
(JOHN BOERE, JR, TENANT)		
SOLD TO WARMINGTON DEVELOPMENT INC	-8.00	
TOTAL		0.00
GUERRERO, FLORENCE	2.00	
SOLD TO CERRITOS, CITY OF	-2.00	
TOTAL		0.00
GUGLIELMANA, LOUIS		
(SEE LISTING UNDER CENTRAL MANUFACTURING DISTRICT, INC)		
GULF OIL CORP		
SUCCESSOR TO INDUSTRIAL ASPHALT OF CALIF, INC	93.00	
SUCCESSOR TO MYRNDAHL, MARY	9.00	

SUCCESSOR TO WILSHIRE OIL CO OF CALIFORNIA	1,436.00	
SOLD TO GOLDEN WEST REFINING CO	-1,538.00	
TOTAL		0.00
GUTIERREZ, GEORGE V AND MRS SOCORRO GUTIERREZ		
(SEE LISTING UNDER ASSOCIATED SOUTHERN INVESTMENT CO)		
GUTIERREZ, SALVATORE		
(SEE LISTING UNDER SOUTHERN CALIFORNIA EDISON CO)		
HAAGSMA, GERRIT AND MARY	8.00	
SOLD TO VISSER BROTHERS	-8.00	
TOTAL		0.00
HAAKMA, ED AND SJANA		
(DEL AMO DAIRY, TENANT; ED HAAKMA AND PETE VANDER KOOI, BEING PARTNERS OF SAID DEL AMO DAIRY)	22.00	
DEDICATED IN PART TO CERRITOS, CITY OF (NOW KNOWN AS HAAKMA, SJANA)	-11.00	
TRANSFERRED TO HAAKMA, SJANA	-11.00	
TOTAL		0.00
HAAKMA, SJANA		
(FORMERLY KNOWN AS HAAKMA, ED AND SJANA)		
TRANSFERRED FROM HAAKMA, ED AND SJANA	11.00	
(NOW KNOWN AS HAAKMA, SJANA, AS TRUSTEE OF THE SJANA HAAKMA TRUST)		
TRANSFERRED TO HAAKMA, SJANA, AS TRUSTEE OF THE SJANA HAAKMA TRUST	-11.00	
TOTAL		0.00
HAAKMA, SJANA, AS TRUSTEE OF SJANA HAAKMA TRUST		
TRANSFERRED FROM HAAKMA, SJANA	11.00	
(NOW KNOWN AS WEAVER, BONNIE, AS SUCCESSOR TRUSTEE OF THE SJANA HAAKMA TRUST)		
TRANSFERRED TO WEAVER, BONNIE, AS SUCCESSOR TRUSTEE OF THE SJANA HAAKMA TRUST	-11.00	
TOTAL		0.00
HAAS, VERNEY AND ADELYNE	4.00	
SOLD TO KAISER AETNA	-4.00	
TOTAL		0.00
HADLEY, WILLIAM H AND GRACE	4.00	
SOLD TO LAKEWOOD, CITY OF	-4.00	
TOTAL		0.00
HAFLINGER, HENRY C AND EMILY	8.00	
SOLD TO GREEN HILLS DEVELOPMENT CO	-8.00	
TOTAL		0.00
HALBURG, CLARENCE THEODORE	3.00	
SOLD TO FRANKS, RICHARD A AND PHYLLIS H	-3.00	
TOTAL		0.00
HAMBARIAN, FRED	2.00	
SOLD TO MILESKI, DAVE	-2.00	
TOTAL		0.00
HAMM, THEO, BREWING CO	120.00	
SUCCESSOR TO ADAMS, JULES H	34.00	
SUCCESSOR TO POOL, CLARENCE	19.00	
SOLD TO HEUBLEIN, INC	-173.00	
TOTAL		0.00
HAMRA, ROBERT J AND RAMZA		
SUCCESSOR TO STRUIKMANS, CORNELIUS AND IDA	7.00	
SOLD TO CERRITOS, CITY OF	-7.00	
TOTAL		0.00
HAMSTRA, HENRY AND NELLY	26.00	
SOLD TO ARDEN-MAYFAIR, INC	-26.00	
TOTAL		0.00
HANSEN, RAYMOND AND MARY	10.00	
SOLD TO KIMM, JACOB R AND BONNIE	-10.00	
TOTAL		0.00
HARADA BROTHERS		
SUCCESSOR TO RIETKERK, GEORGE AND CORNELIA	6.00	
TOTAL		6.00
HARINGA, EARL; EVERT AND GERTRUDE VEENENDAAL	18.00	
SOLD TO VEENENDAAL, EVERT AND GERTRUDE	-18.00	
TOTAL		0.00
HARISMENDY, ANTOINE AND CLAIRE	0.00	
SOLD TO ARDEN-MAYFAIR, INC	-0.00	
TOTAL		0.00
HARRIS, GERALD E		
SUCCESSOR TO ASMUS, CONRAD E AND PHIL COOPER	2.00	
SOLD TO WOODINGTON DEVELOPMENT	-2.00	
TOTAL		0.00
HARRON, RICKARD AND MCCONE CO OF SOUTHERN CALIFORNIA		
(SEE LISTING UNDER H R M LAND CO)		
HASTINGS, JACK D	0.00	
TOTAL		0.00
HATANAKA, KAMEKO	7.00	
DEDICATED TO CERRITOS, CITY OF	-7.00	
TOTAL		0.00
HATANAKA, KAZUO	8.00	
(MINORU YOSHIJIMA, TENANT)		
SOLD TO CERRITOS, CITY OF	-8.00	
TOTAL		0.00
HATANAKA, MASAKAZU, ISAO, AND KENICHI	4.00	
SOLD TO SOUTHERN CALIFORNIA EDISON CO	-4.00	
TOTAL		0.00
HATANAKA, MOTOYE (MRS)	0.00	
TOTAL		0.00
HATHAWAY, ANNA A, TRUSTEE OF THE ANA A HATHAWAY REVOCABLE TRUST		
SUCCESSOR IN PART TO HATHAWAY, J ELWOOD AND JULIAN I	8.00	
TRANSFERRED TO HATHAWAY, J BENJAMIN AND NORTHERN TRUST BANK OF CALIFORNIA, SUCCESSOR TRUSTEES	-8.00	
TOTAL		0.00
HATHAWAY, J BENJAMIN AND NORTHERN TRUST BANK OF CALIFORNIA, SUCCESSOR TRUSTEES		
SUCCESSOR TO HATHAWAY, ANNA A, TRUSTEE OF THE ANNA A HATHAWAY REVOCABLE TRUST	8.00	
SOLD TO JOHN J. HATHAWAY	-8.00	
TOTAL		0.00
HATHAWAY, JOHN J		
SUCCESSOR TO HATHAWAY, J BENJAMIN AND NORTHERN TRUST BANK OF CALIFORNIA, SUCCESSOR TRUSTEES	8.00	
SOLD TO LA HABRA HEIGHTS COUNTY WATER DISTRICT	- 8.00	
TOTAL		0.00
HATHAWAY, J ELWOOD AND JULIAN I		
SUCCESSOR IN PART TO HATHAWAY RANCH	16.00	
TRANSFERRED IN PART TO HATHAWAY, ANNA A, TRUSTEE OF THE ANNA A HATHAWAY REVOCABLE TRUST	-8.00	
TRANSFERRED IN PART TO HATHAWAY, JULIAN I AND HELEN M, TRUSTEES	-8.00	
TOTAL		0.00
HATHAWAY, JULIAN I AND HELEN M, TRUSTEES		
SUCCESSOR IN PART TO HATHAWAY, J ELWOOD AND JULIAN I	8.00	
SOLD TO WEMS, INC.	-8.00	
TOTAL		0.00
HATHAWAY CO [RICHARD F HATHAWAY, JULIAN I HATHAWAY, AND J ELWOOD HATHAWAY] (GREENE-HOWARD PETROLEUM CORP, TENANT)	56.00	
SUCCESSOR TO VANDER DUSSEN, SYBRAND & JOHANNA	18.00	
SOLD IN PART TO SANTA FE SPRINGS, CITY OF (NOW KNOWN AS HATHAWAY RANCH)	-8.00	
TRANSFERRED TO HATHAWAY RANCH	-66.00	
TOTAL		0.00
HATHAWAY FAMILY QTIP TRUST		
SUCCESSOR IN PART TO HATHAWAY RANCH	11.11	
SOLD IN PART TO HATHAWAY, JESSE R.	-1.85	
SOLD IN PART TO HATHAWAY, LOLINE	-1.85	
SOLD IN PART TO HATHAWAY, RICHARD F.	-1.85	
SOLD IN PART TO HATHAWAY, WILLIAM A.	-1.85	
SOLD IN PART TO HATHAWAY, MERRIE F.	-1.86	
SOLD IN PART TO RIPPY, FRANCINE	-1.85	
TOTAL		0.00
HATHAWAY FAMILY SURVIVOR'S TRUST		
SUCCESSOR IN PART TO HATHAWAY RANCH	11.11	
SOLD IN PART TO HATHAWAY, JESSE R.	-2.22	
SOLD IN PART TO HATHAWAY, LOLINE	-2.23	
SOLD IN PART TO HATHAWAY, RICHARD F.	-2.22	
SOLD IN PART TO HATHAWAY, WILLIAM A.	-2.22	
SOLD IN PART TO RIPPY, FRANCINE	-2.22	
TOTAL		0.00
HATHAWAY, JESSE R,		
SUCCESSOR IN PART TO HATHAWAY FAMILY QTIP TRUST	1.85	
SUCCESSOR IN PART TO HATHAWAY FAMILY SURVIVOR'S TRUST	2.22	
SOLD TO METRO-H20 (12-4-13)	-4.07	
TOTAL		0.00
HATHAWAY RANCH		
(FORMERLY KNOWN AS HATHAWAY CO)		
TRANSFERRED FROM HATHAWAY CO	66.00	
TRANSFERRED IN PART TO HATHAWAY FAMILY QTIP TRUST	-11.11	
TRANSFERRED IN PART TO HATHAWAY FAMILY SURVIVOR'S TRUST	-11.11	
TRANSFERRED IN PART TO HATHAWAY, J ELWOOD AND JULIAN I	-16.00	
SOLD IN PART TO SANTA FE SPRINGS, CITY OF	-11.10	
SOLD IN PART TO SANTA FE SPRINGS, CITY OF	-16.68	
TOTAL		0.00
HATHAWAY, LOLINE		
SUCCESSOR IN PART TO HATHAWAY FAMILY QTIP TRUST	1.85	
SUCCESSOR IN PART TO HATHAWAY FAMILY SURVIVOR'S TRUST	2.23	
TOTAL		4.08
HATHAWAY, MERRIE F,		
SUCCESSOR IN PART TO HATHAWAY FAMILY QTIP TRUST	1.86	
TOTAL		1.86
HATHAWAY, RICHARD F.		
SUCCESSOR IN PART TO HATHAWAY FAMILY QTIP TRUST	1.85	
SUCCESSOR IN PART TO HATHAWAY FAMILY SURVIVOR'S TRUST	2.22	
TOTAL		4.07
HATHAWAY, WILLIAM A.		
SUCCESSOR IN PART TO HATHAWAY FAMILY QTIP TRUST	1.85	

SUCCESSOR IN PART TO HATHAWAY FAMILY SURVIVOR'S TRUST	2.22	
TOTAL		4.07
HELLER, CLARENCE E, ALFRED HELLER, ELIZABETH HELLER, AND ELINOR R HELLER AS CO-EXECUTORS OF THE ESTATE OF EDWARD H. HELLER, DECEASED		
(SEE LISTING UNDER EHRMAN, FLORENCE HELLMAN, ETC)		
HELLMAN, I W, JR, FREDERICK J HELLMAN AND MARCO F HELLMAN		
(SEE LISTING UNDER EHRMAN, FLORENCE HELLMAN, ETC)		
HEUBLEIN, INC		
SUCCESSOR TO HAMM, THEO, BREWING CO	173.00	
SOLD TO VERNON, CITY OF VIA ALAMEDA PROPERTIES	-173.00	
TOTAL		0.00
HICKS, RALPH	0.00	
TOTAL		0.00
HIGHSTREET, ALFRED V AND EVADA V	8.00	
SOLD TO CLASSIC DEVELOPMENT CO	-8.00	
TOTAL		0.00
HIGHSTREET, JOHN AND EILEEN	7.00	
SOLD TO BAUER DEVELOPMENT CO	-7.00	
TOTAL		0.00
HILARIDES, BOB AND MAAIKE	41.00	
(FRANK HILARIDES, TENANT)		
SOLD TO CERRITOS, CITY OF	-41.00	
TOTAL		0.00
HILARIDES, JOHN AND MARIA	21.00	
SOLD IN PART TO AVERY, MARGARET	-10.00	
SOLD IN PART TO LAKEWOOD, CITY OF	-11.00	
TOTAL		0.00
HIRASHIMA, HAJIME		
(SEE LISTING UNDER UYEDA, MASARU		
HIX, WILLIS G	1.00	
SOLD TO CERRITOS, CITY OF	-1.00	
TOTAL		0.00
H J S MUTUAL WATER CO	50.00	
SOLD TO UEHLING WATER CO, INC	-50.00	
TOTAL		0.00
HOFFMAN, HENRY H AND APOLONIA	10.00	
SOLD TO WARMINGTON CONSTRUCTION CO	-10.00	
TOTAL		0.00
HOFSTRA, DICK	0.00	
TOTAL		0.00
HOHN, ANDREW V AND MARY G	1.00	
SOLD TO HORSESHOE CATTLE CO	-1.00	
TOTAL		0.00
HOKE, BARBARA	0.00	
SUCCESSOR TO HOKE, BARBARA AND ROSING, NANCY	1.50	
TOTAL		1.50
HOKE, BARBARA AND ROSING, NANCY		
SUCCESSOR TO ROSING, LENORE INTER VIVOS TRUST (6-17-15)	3.00	
SOLD TO HOKE, BARBARA	-1.50	
SOLD TO ROSING, NANCY	-1.50	
TOTAL		0.00
HOLMES, KYLE R AND GRACE ELLEN	16.00	
SOLD TO PECOS PARK	-16.00	
TOTAL		0.00
HOME WATER CO	28.00	
SOLD TO UEHLING WATER CO	-28.00	
TOTAL		0.00
HOMEN, MANUEL L	14.00	
DEDICATED TO CERRITOS, CITY OF	-14.00	
TOTAL		0.00
HOMER, PAUL Y (MRS)		
(SEE LISTING UNDER MRS PAUL Y HOMER (KING))		
HON INDUSTRIES, INC		
SUCCESSOR TO FIRESTONE TIRE AND RUBBER CO, THE	1,229.00	
SOLD TO SOUTH GATE, CITY OF	-1,229.00	
TOTAL		0.00
HOOGLAND, CORNELIUS AND ALICE	12.00	
SOLD TO KAISER AETNA	-12.00	
TOTAL		0.00
HOP, ANDREW JR AND MURIEL	26.00	
DEDICATED TO CERRITOS, CITY OF	-26.00	
TOTAL		0.00
HOP, ART JR	0.00	
TOTAL		0.00
HOP, ART SR AND JOHANNA	4.00	
(G A VAN BEEK, TENANT)		
SOLD TO SQUIRE, RICHARD & HENRIETTA M & ROBERT K	-4.00	
TOTAL		0.00
HORSESHOE CATTLE CO		
SUCCESSOR TO AGUAYO, JUAN AND SALOME Y	1.00	
SUCCESSOR TO BARCELLES, ANTONIO B AND MANUEL B	10.00	
SUCCESSOR TO GOLDEN WOOL CO	170.00	
SUCCESSOR TO GORDON, HUNTLEY L, ESTATE OF	33.00	
SUCCESSOR TO HOHN, ANDREW V AND MARY G	1.00	
SUCCESSOR TO MOSKOWITZ, IRVING	6.00	
SUCCESSOR TO SAMPSON, WM C AND MILDRED VIA HALOPOFF	5.00	
SUCCESSOR TO SCHUSTER, DICK	3.00	
SUCCESSOR TO SMITH, RALPH E	4.00	
SUCCESSOR TO VANDER DUSSEN, COR AND GERRIT W FIKSE	4.00	
SUCCESSOR IN PART TO BRENTWOOD-MORNING CO	32.00	
SOLD IN PART TO POWERINE OIL CO	-268.00	
SOLD IN PART TO SMITH, CLIFFORD C	-1.00	
TOTAL		0.00
HOUSEMAN, THEODORE R AND LEONA M	11.00	
SOLD IN PART TO GIBBONS, ROBERT L	-5.00	
SOLD IN PART TO SANTA FE SPRINGS, CITY OF	-6.00	
TOTAL		0.00
H R M LAND CO	3.00	
(HARRON, RICKARD AND MCCONE CO OF SOUTHERN CALIFORNIA AND CALAVAR CORP, TENANTS)		
SOLD TO SAVAGE, WILLIAM	-3.00	
TOTAL		0.00
HUGH W GRAHAM OR MARIA K GRAHAM, TRUSTEES OF THE GRAHAM FAMILY REVOCABLE TRUST DATED 3-6-91		
TRANSFERRED FROM GRAHAM, HUGH W OR MARCIA K	6.00	
SOLD TO ECOGAS, INC.	-6.00	
TOTAL		0.00
HUMPHRIES INVESTMENTS, INC		
(SEE LISTING UNDER COPP EQUIPMENT CO, INC)		
HUNSAKER, RICHARD C		
SUCCESSOR TO MFD-NORWALK	2.00	
SOLD TO SANTA FE SPRINGS, CITY OF	-2.00	
TOTAL		0.00
HUNTINGTON PACIFIC CORP		
SUCCESSOR TO STONEBRIDGE EQUITIES CORP	10.00	
SOLD TO CERRITOS, CITY OF	-10.00	
TOTAL		0.00
HUNTINGTON PARK, CITY OF	3,830.00	
SUCCESSOR TO FIRST INTERSTATE BANK	8.00	
SUCCESSOR TO KNEVELBAARD, WILLIE AND JOREEN	1.00	
SUCCESSOR TO MIMIKI, GEORGE, ET AL	2.00	
SUCCESSOR IN PART TO JAN-U-WINE FOODS, INC	12.00	
TOTAL		3,853.00
HUYG, ALBERT AND MARIE	18.00	
SOLD TO HUYG, CONRAD L AND MARIA	-18.00	
TOTAL		0.00
HUYG, CONRAD L AND MARIA		
SUCCESSOR TO HUYG, ALBERT AND MARIE	18.00	
SOLD TO COMPTON, CITY OF	-18.00	
TOTAL		0.00
HYAN, SUSAN A, TRUSTEE OF THE SUSAN A HYAN TRUST U/D/T 4/2/83 AND JAISOHN HYAN MARITAL Q-TIP TRUST AND UNITED CREDIT TRUST U/D/T 5/25/83		
ASSIGNED FROM JH AND SH, INC	15.00	
SOLD TO COMMERCE HOTEL, LTD	-15.00	
TOTAL		0.00
HYGENIC DAIRY FARMS, INC	0.00	
TOTAL		0.00
IDSINGA, PETE W		
(FORMERLY KNOWN AS IDSINGA, PETE AND ANNIE)		
TRANSFERRED FROM IDSINGA, PETE W AND ANNIE	10.00	
SOLD TO STONEBRIDGE EQUITIES CORP	-10.00	
TOTAL		0.00
IDSINGA, PETE W AND ANNIE	10.00	
(NOW KNOWN AS IDSINGA, PETE W)		
TRANSFERRED TO IDSINGA, PETE W	-10.00	
TOTAL		0.00
IMBERT, ALICE M	1.00	
SOLD TO LEE DEANE PRODUCTS, INC	-1.00	
TOTAL		0.00
INDUSTRIAL ASPHALT OF CALIFORNIA, INC	93.00	
TRANSFERRED TO GULF OIL CORP	-93.00	
TOTAL		0.00
INGLEWOOD, CITY OF	894.00	
SUCCESSOR TO ARMSTRONG, ROCK H	22.00	
SUCCESSOR TO EQUITY FUNDING DEVELOPMENT CORP	3.00	
SUCCESSOR IN PART TO BETTENCOURT, JACK R & BELLA	11.00	
SOLD TO DOWNEY, CITY OF	-930.00	
TOTAL		0.00
INGLEWOOD PARK CEMETERY ASSOC	228.00	
SUCCESSOR TO DOMINGUEZ SEMINARY AND CLARETIAN JR SEMINARY	89.00	
TOTAL		317.00
INTERNATIONAL CARBONIC, INC		
(SEE LISTING UNDER BEEGHLY, P T)		
ISHII, JUGORA AND MUMENO	8.00	
(ISHII BROTHERS., TENANT)		
SOLD TO RYDER, BAYARD	-8.00	
TOTAL		0.00
JAMISON, ROBERT J AND BETTY	6.00	
SOLD TO AUTOMOBILE CLUB OF SOUTHERN CALIFORNIA	-6.00	
TOTAL		0.00
JAN-U-WINE FOODS, INC		
(NAME CHANGED FROM ORIENTAL FOODS, INC)		
TRANSFERRED FROM ORIENTAL FOODS, INC	27.00	
SOLD IN PART TO HUNTINGTON PARK, CITY OF	-12.00	
(NOW KNOWN AS JH AND SH, INC)		

TRANSFERRED TO JH AND SH INC	-15.00	
TOTAL		0.00
JAR/CERRITOS CORPORATE CENTER		
SUCCESSOR TO STEELE, JOHN AND CLARA D	4.00	
SOLD TO CERRITOS, CITY OF	-4.00	
TOTAL		0.00
JAY, HAROLD J AND SHERRY A, TRUSTEES OF THE JAY LIVING TRUST		
DISTRIBUTED FROM BONDED CATTLE CO	11.50	
SOLD TO CERRITOS, CITY OF	-11.50	
TOTAL		0.00
JEFFERSON SMURFIT CORP (U S)		
(NAME CHANGED FROM CONTAINER CORP OF AMERICA)		
TRANSFERRED FROM CONTAINER CORP OF AMERICA	1,058.00	
NAME CHANGED TO SMURFIT-STONE CONTAINER ENTERPRISES, INC		
TRANSFERRED TO SMURFIT-STONE CONTAINER ENTERPRISES, INC	-1,058.00	
TOTAL		0.00
JENKINS REALTY MUTUAL WATER CO	8.00	
(CLYDE H JENKINS, MINNIE R JENKINS, MARY WILCOX, RUBY F MARCHBANK, ROBERT B MARCHBANK, JOHN W ENGLAND, AND CONSUELLO ENGLAND, SHAREHOLDERS)		
SOLD TO SANTA FE SPRINGS, CITY OF	-8.00	
TOTAL		0.00
JH AND SH INC		
(FORMERLY KNOWN AS JAN-U-WINE FOODS, INC)		
TRANSFERRED FROM JAN-U-WINE FOODS, INC	15.00	
ASSIGNED TO SUSAN A. HYAN, TRUSTEE OF THE SUSAN A HYAN TRUST U/D/T 4/2/83 AND JAISOHN HYAN MARITAL Q-TIP TRUST AND UNITED CREDIT TRUST U/D/T 5/25/83	-15.00	
TOTAL		0.00
JOHNSTON, DELBERT L, CAROL J JOHNSTON, REX D JOHNSTON AND JUDITH A JOHNSTON		
SUCCESSOR TO GARRETT, FREDDIE A AND VIVIAN MARIE	5.00	
SOLD TO BOOGAARD, JOHN JR, SUSAN PATRICIA BOOGAARD, CORNILIUS W BOOGAARD AND WILLA J BOOGAARD	-5.00	
TOTAL		0.00
JOHN-WADE CO	1.00	
SOLD TO LUCKY STORES, INC	-1.00	
TOTAL		0.00
JONES, CLIFTON S JR, INC		
SUCCESSOR IN PART TO AVERY, MARGARET M	9.00	
(NOW KNOWN AS JONES CO, THE)		
TRANSFERRED TO JONES CO, THE	-9.00	
TOTAL		0.00
JONES CO, THE		
(FORMERLY KNOWN AS JONES, CLIFTON S JR, INC)		
TRANSFERRED FROM JONES, CLIFTON S JR, INC	9.00	
TRANSFERRED IN PART FROM LONG BEACH CONSTRUCTION CO	61.00	
SOLD TO MONTEBELLO LAND AND WATER COMPANY (7/26/2012)	-70.00	
TOTAL		0.00
JONES, HENRY S AND MADELYNE	1.00	
CONDEMNED AND TRANSFERRED TO ABC UNIFIED SCHOOL DISTRICT	-1.00	
TOTAL		0.00
JONES, U STEWART AND DOROTHY E	1.00	
(TONY FERNANDES, TENANT)		
SOLD TO CERRITOS, CITY OF	-1.00	
TOTAL		0.00
JONGSMA, HAROLD AND MARY N	52.00	
DEDICATED TO CERRITOS, CITY OF	-52.00	
TOTAL		0.00
JORDAN, W P		
(SEE LISTING UNDER VAN RUITEN, HENRY & MARY A, ETC)		
JORRITSMA, DAVE AND ELIZABETH	22.00	
SOLD TO CERRITOS DISTRIBUTION ASSOCIATES II	-22.00	
TOTAL		0.00
JOSEPH, CHRISTINE		
(SEE LISTING UNDER WOLFSBERGER, HELEN)		
JUNIOR WATER CO, INC	590.00	
SOLD TO NORWALK, CITY OF	-590.00	
TOTAL		0.00
KAISER AETNA		
SUCCESSOR TO BOERSMA, SAM AND BERDINA	6.00	
SUCCESSOR TO FERREIRA, CAROLINA	30.00	
SUCCESSOR TO GORZEMAN, JOE AND ELSIE	10.00	
SUCCESSOR TO HAAS, VERNEY AND ADELYNE	4.00	
SUCCESSOR TO HOOGLAND, CORNELIUS AND ALICE	12.00	
SUCCESSOR TO MAYFAIR SALES CO, INC	12.00	
SUCCESSOR TO VAN DAM, GERRIT AND GRACE	10.00	
SUCCESSOR IN PART TO BARTSMA, SAM AND BIRDIE	7.00	
DEDICATED IN PART TO CERRITOS, CITY OF	-84.00	
SOLD IN PART TO A E REALTY PARTNERS	-7.00	
TOTAL		0.00
KAISER, SAXTON AND STILES, INC		
SUCCESSOR TO VANDER VEGT, BILL AND HENNY	14.00	
SOLD TO STATE-WIDE DEVELOPERS, INC	-14.00	
TOTAL		0.00
KALICO, INC	4.00	
SOLD TO SANTA FE SPRINGS, CITY OF	-4.00	
TOTAL		0.00
KAL KAN FOODS, INC	96.00	
SUCCESSOR TO THIRTY-THREE FORTY-FIVE EAST FORTY-FIFTH STREET, INC	14.00	
SUCCESSOR TO QUALITY MEAT PACKING CO	30.00	
MERGED WITH AND INTO: MARS PETCARE US INC.	-140.00	
TOTAL		0.00
KALUSTIAN, HAGOP	10.00	
SOLD IN PART TO ASMUS, CONRAD E AND PHIL COOPER	-2.00	
SOLD IN PART TO GORDON, NORMAN W, ET AL	-8.00	
TOTAL		0.00
KAMPEN, FRITZ AND CLARE	11.00	
CONDEMNED AND TRANSFERRED TO ABC UNIFIED SCHOOL DISTRICT	-11.00	
TOTAL		0.00
KAMPEN, HENRY		
(SEE LISTING UNDER ESCOBAR, ANTHONY F AND EVAN M)		
KAMSTRA, WILLIAM AND BERTHA	28.00	
SOLD TO PRESLEY DEVELOPMENT CO	-28.00	
TOTAL		0.00
KAUFFMAN, L, CO, INC		
(SEE LISTING UNDER MEYBERG, LORRAINE K)		
KAWAGUCHI, CHIGE AND MASAO	4.00	
(JUN FUKUSHIMA, TENANT)		
(NOW KNOWN AS KAWAGUCHI, SUMIYE)		
TRANSFERRED TO KAWAGUCHI, SUMIYE	-4.00	
TOTAL		0.00
KAWAGUCHI, SUMIYE		
(FORMERLY KNOWN AS KAWAGUCHI, CHIYE AND MASAO)		
TRANSFERRED FROM KAWAGUCHI, CHIYE AND MASAO	4.00	
SOLD TO LONG BEACH, CITY OF	-4.00	
TOTAL		0.00
KIMM, JACOB R AND BONNIE	29.00	
SUCCESSOR TO HANSEN, RAYMOND AND MARY	10.00	
DEDICATED IN PART TO CERRITOS, CITY OF	-29.00	
SOLD IN PART TO CERRITOS, CITY OF	-10.00	
TOTAL		0.00
KING KELLY MARMALADE CO, INC		
(SEE LISTING UNDER MAGNUSSON, ROBERTA W)		
SUCCESSOR TO BOWEN, EDWARD H	13.00	
SUCCESSOR IN PART TO VIERRA, JOSEPH C & CAROLINE	9.00	
SOLD TO BOWEN, JOHN H., TRUSTEE OF THE JOHN H. BOWEN TRUST	-22.00	
TOTAL		0.00
(KING) MRS PAUL Y HOMER	14.00	
SOLD TO SAN GABRIEL VALLEY WATER CO	-14.00	
TOTAL		0.00
KINNE, ORAAN (MRS)	9.00	
(NICHOLAAS J MOONS, TENANT)		
(NOW KNOWN AS KINNE, EUNICE W)		
TRANSFERRED TO KINNE, EUNICE W	-9.00	
TOTAL		0.00
KINNE, EUNICE W		
(FORMERLY KNOWN AS KINNE, ORAAN (MRS))		
TRANSFERRED FROM KINNE, ORAAN (MRS)	9.00	
SOLD TO MCLAREN, VELMA AND ARLINE K NUZUM	-9.00	
TOTAL		0.00
KIRK, MORRIS P AND SON, INC	62.00	
SOLD TO N L INDUSTRIES INC, METAL DIVISION-WESTERN REGION	-62.00	
TOTAL		0.00
KLUG, J W DEVELOPMENT CO, INC		
SUCCESSOR TO SNOZZI, LEO AND SYLVIA	42.00	
SOLD TO PICO RIVERA, CITY OF	-42.00	
TOTAL		0.00
KNEVELBAARD, JAKE AND ANNA	40.00	
SOLD IN PART TO CENTURY CENTER MUTUAL WATER ASSOC	-10.00	
SOLD IN PART TO CERRITOS, CITY OF	-30.00	
TOTAL		0.00
KNEVELBAARD, WILLIE AND JOREEN	1.00	
SOLD TO HUNTINGTON PARK, CITY OF	-1.00	
TOTAL		0.00
KNORRINGA, SIMON	10.00	
SOLD TO ARTESIA REFORMED CHURCH	-10.00	
TOTAL		0.00
KOETSIER, JOHN, JR	0.00	
TOTAL		0.00
KOLSTAD, MYRON D		
(SEE LISTING UNDER BOUMA, FRANK)		
KONO, YOSHIO AND BARBARA		
(SEE LISTING UNDER MIMAKI, GEORGE)		
KOOLHAAS, LOUIS	10.00	
SOLD TO MAIDEN FAIR CO	-10.00	
TOTAL		0.00
KOOLHAAS, SIMON AND SOPHIE GRACE	7.00	
SOLD TO ABC UNIFIED SCHOOL DISTRICT	-7.00	
TOTAL		0.00

KOOPMANS, PETE		
(SEE LISTING UNDER GONSALVES, JACK, ETC)		
PARTITIONED FROM GONSALVES, JACK, JOE LUCAS, PETE KOOPMANS, MANUEL M SOUZA SR, MANUEL M SOUZA JR, FRANK M SOUZA, LOUIE J SOUZA AND MARY A FERREIRA	11.00	
SOLD TO MONTEBELLO, CITY OF	-11.00	
TOTAL		0.00
KOOT, NICK P		
(SEE LISTING UNDER MYRNDAHL, MARY)		
KOTAKE, ET AL		
(RUBY MOCHIDOME, GRACE ARATA, SEIGO KOTAKE, MASAO KOTAKE, AND WILLIAM KOTAKE)		
SUCCESSOR TO KOTAKE, INC	76.00	
SOLD IN PART TO KOTAKE, MASAO	-27.97	
SOLD IN PART TO KOTAKE, WILLIAM	-48.03	
TOTAL		0.00
KOTAKE, INC	66.00	
(MASAO KOTAKE, SEIGO KOTAKE, WILLIAM KOTAKE, DBA KOTAKE BROS, TENANTS)		
SUCCESSOR TO UYEDA, MASARU, HAJIME HARASHIMA AND TADESHI UYEDA	10.00,	
SOLD TO KOTAKE, ET AL	-76.00	
TOTAL		0.00
KOTAKE, MASAO		
SUCCESSOR IN PART TO KOTAKE, ET AL	27.97	
TRANSFERRED TO KOTAKE, MASAO AS TRUSTEE OF THE MASAO KOTAKE INTER VIVOS TRUST	-27.97	
TOTAL		0.00
KOTAKE, MASAO AS TRUSTEE OF THE MASAO KOTAKE INTER VIVOS TRUST		
SUCCESSOR TO KOTAKE, MASAO	27.97	
SOLD TO ECOGAS INC. (1/29/18)	-27.97	
TOTAL		0.00
KOTAKE, WILLIAM		
SUCCESSOR IN PART TO KOTAKE, ET AL	48.03	
SOLD TO CERRITOS, CITY OF	-48.03	
TOTAL		0.00
KRUSE PROPERTIES CO		0.00
(FORMERLY KNOWN AS KRUSE, WALTER G AND MRS WALTER G, AKA VERA M KRUSE)		
KRUSE, WALTER G AND MRS WALTER G, AKA VERA M KRUSE	9.00	
SOLD TO PICO RIVERA, CITY OF	-9.00	
TOTAL		0.00
(NOW KNOWN AS KRUSE PROPERTIES CO WITH ZERO WATER RIGHTS)		
LAGUNA-MAYWOOD MUTUAL WATER CO NO 1	1,283.00	
SOLD TO COMMERCE, CITY OF	-1,283.00	
TOTAL		0.00
LA BRICKYARD, LLC		
SUCCESSOR TO ATKINSON BRICK CO. (10-16-14)	9.00	
TOTAL	9.00	
LA HABRA HEIGHTS COUNTY WATER DISTRICT		
SUCCESSOR TO LA HABRA HEIGHTS MUTUAL WATER CO	2,498.00	
SUCCESSOR TO HATHAWAY, JOHN J.	8.00	
SUCESSOR IN PART TO MARS PETCARE US, INC.	90.00	
SUCESSOR IN PART TO AQUA CAPITAL MANAGEMENT (5-1-14)	50.00	
TOTAL	2,646.00	
LA HABRA HEIGHTS MUTUAL WATER CO	2,435.00	
SUCCESSOR IN PART TO UNION OIL CO OF CALIFORNIA	63.00	
SOLD TO LA HABRA HEIGHTS COUNTY WATER DISTRICT	-2,498.00	
TOTAL		0.00
LA HACIENDA WATER CO	37.00	
SOLD IN PART TO CERRITOS, CITY OF	-18.00	
SOLD IN PART TO COMPTON, CITY OF	-18.00	
SOLD TO PARK WATER COMPANY	-1.00	
TOTAL		0.00
LAKE CONSTRUCTION CO		
SUCCESSOR IN PART TO VAN RUITEN, JAKE AND JACOBA	2.00	
SUCCESSOR IN PART TO VAN RUITEN, THOMAS G AND INGRID K	7.00	
SOLD TO FARMERS AND MERCHANTS TRUST CO OF L B	-9.00	
TOTAL		0.00
LAKEWOOD, CITY OF	8,505.00	
SUCCESSOR TO CHALLENGE CREAM & BUTTER ASSOC	117.00	
SUCCESSOR TO DANIELS, G A	1.00	
SUCCESSOR TO DE CORDOVA, JUAN	21.00	
SUCCESSOR TO 11409 CARSON LTD (C/O SPONGBERG, KIRKLAND AND BLACK)	2.00	
SUCCESSOR TO GENERAL DYNAMICS CORP	540.00	
SUCCESSOR TO HADLEY, WILLIAM H AND GRACE	4.00	
SUCCESSOR TO LECHASSEUR, EUGENE O AND LILLIAN P	2.00	
SUCCESSOR TO MONTEREY ACRES MUTUAL WATER CO	102.00	
SUCCESSOR TO POHATAN CORP	10.00	
SUCCESSOR TO SHOEMAKER PARTNER	8.00	
SUCCESSOR TO TEIXEIRA, GEORGE S AND LAURA L	14.00	
SUCCESSOR TO VAN DIEST, JENNIE, ET AL	16.00	
SUCCESSOR TO VONS GROCERY STORES	6.00	
SUCCESSOR IN PART TO BOERE, EDNA	20.00	
SUCCESSOR IN PART TO COUNTY WATER CO	22.00	
SUCCESSOR IN PART TO GOLDEN WEST REFINING CO	400.00	
SUCCESSOR IN PART TO HILARIDES, JOHN AND MARIA	11.00	
SOLD TO DOWNEY, CITY OF	-438.00	
SUCCESSOR IN PART TO GOLDEN WEST REFINING COMPANY	60.00	
SUCCESSOR TO MCLAREN, VELMA AND ARLINE K. NUZUM	9.00	
TOTAL		9,432.00
LAKEWOOD PIPE CO, A PARTNERSHIP COMPOSED OF ROBERT G FOREMAN, FRANK W AND JUNE E TYBUS (LAKEWOOD PIPE SERVICE CO, TENANT)	10.00	
SOLD TO SANTA FE SPRINGS, CITY OF	-10.00	
TOTAL		0.00
LAKEWOOD PROPERTIES		
SUCCESSOR TO BUCKLEY, ARTHUR W AND MARIAN J	1.00	
SUCCESSOR TO TROOST, FRED AND ANNIE	42.00	
SUCCESSOR TO U S FINANCIAL	1.00	
SOLD TO SPECIALTY SHOPPING CENTERS, INC	-43.00	
SOLD TO U S FINANCIAL	-1.00	
TOTAL		0.00
LAMBROS, P BASIL		
(SEE LISTING UNDER CONTEAS, NICHOLAS C)		
LA MIRADA DRIVE-IN THEATER		
(SEE LISTING UNDER COWLITZ AMUSEMENTS, INC.)		
LA MIRADA WATER CO	0.00	
TOTAL		0.00
LANDMARK ESTATES, INC		
SUCCESSOR TO DE GROOT, PIER AND FAY	17.00	
DEDICATED TO CERRITOS, CITY OF	-17.00	
TOTAL		0.00
LANGSLET, C ROBERT AND SON, INC		
SUCCESSOR TO BROWN, JOHN SCHOOLS OF CALIFORNIA	2.00	
SUCCESSOR TO ERICKSON, JOHN E	2.00	
SUCCESSOR TO MURAKAWA, KIYOSHI AND SHIZUKO	0.00	
SOLD IN PART TO PENDER, MARK L AND MARY VIRGINIA	-2.00	
SOLD TO WESTERN WATER CO	-2.00	
TOTAL		0.00
LANGSTON, CALVIN E AND EDITH	1.00	
SOLD TO CASA DEL AMO	-1.00	
TOTAL		0.00
LANTING, S M AND ALICE	12.00	
SOLD TO VAN RUITEN, PETE AND MARY	-12.00	
TOTAL		0.00
LARWIN SOUTHERN CALIFORNIA, INC		
SUCCESSOR TO COELHO, JOE A, JR AND ISABEL	4.00	
SUCCESSOR TO DE MELLO, MARY	13.00	
SUCCESSOR IN PART TO ALBERS, J N AND NELLIE	8.00	
DEDICATED TO CERRITOS, CITY OF	-25.00	
TOTAL		0.00
LAUTENBACH, HENRY AND NELLIE H	13.00	
SOLD TO BOERSMA, FRANK AND ANGIE	-13.00	
TOTAL		0.00
LAUTRUP, NORMAN, AS EXECUTOR OF THE ESTATE OF NELS LAUTRUP, DECEASED, AND MINNIE MARGARET LAUTRUP	24.00	
APPORTIONED TO LAUTRUP, NORMAN AND IRMA	-24.00	
TOTAL		0.00
LAUTRUP, NORMAN AND IRMA		
APPORTIONED FROM LAUTRUP, NORMAN, AS EXECUTOR OF THE ESTATE OF NELS LAUTRUP, DECEASED, AND MINNIE MARGARET LAUTRUP	24.00	
SOLD TO SANTA FE SPRINGS, CITY OF	-24.00	
TOTAL		0.00
LEAL, FRANK C AND LOIS L	12.00	
(D V DAIRY, TENANT)		
DEDICATED TO CERRITOS, CITY OF	-12.00	
TOTAL		0.00
LECHASSEUR, EUGENE O AND LILLIAN P	2.00	
(R A LECHASSEUR, TENANT)		
SOLD TO LAKEWOOD, CITY OF	-2.00	
TOTAL		0.00
LEE DEANE PRODUCTS, INC	0.00	
SUCCESSOR TO IMBERT, ALICE M	1.00	
SOLD TO SANTA FE SPRINGS, CITY OF	-1.00	
TOTAL		0.00
LEE, HARLEY		
(SEE LISTING UNDER BLACK, DELBERT G AND LENNIE O, ETC)		
(SEE ALSO LISTING UNDER WELLS, RICHARD A AND BEVERLY ANN, ETC)		
LE FIELL MANUFACTURING CO	0.00	
TOTAL		0.00
LESCOULIE, ARMAND		
(SEE LISTING UNDER SOUTHERN CALIFORNIA EDISON CO)		
LEWIS FOOD CO		
SUCCESSOR TO EAGLE PICHER CO	113.00	
SOLD TO NATIONAL CAN CORP	-113.00	
TOTAL		0.00
LEWIS FOODS - DIV C H B FOODS, INC		
(FORMERLY KNOWN AS LEWIS FOODS - DIV NCC PET FOODS CORP)		
TRANSFERRED FROM LEWIS FOODS - DIV C H B	113.00	

FOODS, INC		
(NOW KNOWN AS PERK/LEWIS FOODS - DIV C H B FOODS)		
TRANSFERRED TO PERK LEWIS FOODS – DIV CHB FOODS	-113.00	
TOTAL		0.00
LEWIS FOODS - DIV NCC PET FOODS CORP		
(FORMERLY NATIONAL CAN CORP)		
TRANSFERRED FROM NATIONAL CAN CORP	113.00	
(NOW KNOWN AS LEWIS FOODS - DIV C H B FOODS, INC)		
TRANSFERRED TO LEWIS FOODS - DIV C H B FOODS, INC	-113.00	
TOTAL		0.00
L G G FAMILY TRUST		
SUCCESSOR TO MARTIN BROS CONTAINER AND TIMBER PRODUCTS CORP, THE	6.00	
SOLD TO CERRITOS, CITY OF	-6.00	
TOTAL		0.00
LIBERTY UTILITIES CORPORATION		
(FORMERLY KNOWN AS PARK WATER COMPANY)		
TRANSFERRED FROM PARK WATER COMPANY	702.30	
SUCCESSOR TO AQUA CAPITAL MANAGEMENT L.P. (07/01/16)	120.00	
SUCCESSOR TO ECOGAS INC. (2/6/17)	27.00	
SUCCESSOR TO ECOGAS INC. (2/14/19)	11.00	
SUCCESSOR TF HIDDEN CREEKS, L.P. (1/6/20)	299.00	
TOTAL		1,159.30
LIBERTY VEGETABLE OIL CO	11.00	
SUCCESSOR IN PART TO RAVERA, MARY	12.00	
SUCCESSOR IN PART TO RELIANCE DAIRY FARMS	11.00	
SOLD TO SANTA FE SPRINGS, CITY OF	-34.00	
TOTAL		0.00
LINCOLN MEMORIAL PARK, INC		
SUCCESSOR TO MEMORIAL PARKS, INC	34.00	
TOTAL		34.00
LINWOOD HOMES, INC		
SUCCESSOR TO DOTINGA, PETER AND TENA	7.00	
SUCCESSOR TO SIMAS, FRANK AND MABEL	9.00	
SUCCESSOR TO VEENENDAAL, HENRIETTA	8.00	
SUCCESSOR TO VEENENDAAL, HENRY AND HENRIETTA	6.00	
DEDICATED TO CERRITOS, CITY OF	-30.00	
TOTAL		0.00
LITTLE LAKE CEMETERY DISTRICT	14.00	
TOTAL		14.00
LITTLE LAKE SCHOOL DISTRICT	0.00	
TOTAL		0.00
LLOYDS BANK CALIFORNIA		
(SEE LISTING UNDER CORDEIRO, MARY)		
LOMA FLORAL CO		
(SEE LISTING UNDER MIMAKI, GEORGE & MITSUKO AND YOSHIO & BARBARA KONO)		
LONG, MELVIN L AND STELLA M	2.00	
CONDEMNED AND TRANSFERRED TO ABC UNIFIED SCHOOL DISTRICT	-2.00	
TOTAL		0.00
LONG BEACH, CITY OF	26,830.00	
SUCCESSOR TO CHERRYVALE WATER USERS ASSOC	11.00	
SUCCESSOR TO CONSERVATIVE WATER CO	3,306.00	
SUCCESSOR TO DOMINGUEZ WATER CORP	100.00	
SUCCESSOR TO DOMTAR GYPSUM INC	1,854.00	
SUCCESSOR TO KAWAGUCHI, SUMIYE	4.00	
SUCCESSOR TO NORTH GATE GARDENS WATER CO	48.00	
SUCCESSOR TO PIEDMONT HEIGHTS WATER CLUB	6.00	
SUCCESSOR TO UNION PACIFIC RAILROAD CO	525.00	
SUCCESSOR TO FRANCIS, CAROL JEANNE, TRUSTEE OF THE CAROL JEANNE FRANCIS SEPARATE PROPERTY TRUST (06/30/2010)	8.00 8.00	
TOTAL		32,692.00
LONG BEACH CONSTRUCTION CO		
SUCCESSOR TO BOUMA, TED AND JEANETTE	17.00	
SUCCESSOR IN PART TO AVERY, MARGARET M	61.00	
DEDICATED IN PART TO CERRITOS, CITY OF	-17.00	
TRANSFERRED IN PART TO JONES CO, THE	-61.00	
TOTAL		0.00
LOOGMAN, NICK J		
(SEE LISTING UNDER SMOORENBURG, WILLIAM)		
LORENZ, FRANK		
(SEE LISTING UNDER OOSTEN, RALPH AND CAROLINE)		
LOS ANGELES, CITY OF	15,000	
SUCESSOR IN PART TO CENTRAL BASIN MUNICIPAL WATER DISTRICT (5-30-14)	46.00	
SUCCESSOR TO AQUA CAPITAL MANAGEMENT L.P. (12-18-14)	1,500.00	
SUCCESSOR TO AQUA CAPITAL MANAGEMENT L.P. (07/01/16)	690.00	
TOTAL		17,236.00
LOS ANGELES COUNTY-DOWNEY REGIONAL PUBLIC RECREATION AREA AUTHORITY		
ASSIGNED FROM STAMPS, JAMES L, FOUNDATION, INC	354.00	
ASSIGNED TO DOWNEY, CITY OF	-354.00	
TOTAL		0.00
LOS ANGELES COUNTY LAKEWOOD GOLF (NON PARTY)	0.00	
TOTAL		0.00
LOS ANGELES COUNTY	590.00	
(NOW KNOWN AS LOS ANGELES COUNTY LA MIRADA GOLF COURSE)		
TRANSFERRED TO LOS ANGELES COUNTY LA MIRADA GOLF COURSE	-590.00	
TOTAL		0.00
LOS ANGELES COUNTY LA MIRADA GOLF COURSE		
(FORMERLY KNOWN AS LOS ANGELES COUNTY)		
TRANSFERRED FROM LOS ANGELES COUNTY	590.00	
(NOW KNOWN AS LOS ANGELES COUNTY RANCHO LOS AMIGOS)		
TRANSFERRED TO LOS ANGELES COUNTY RANCHO LOS AMIGOS	-590.00	
TOTAL		0.00
LOS ANGELES COUNTY RANCHO LOS AMIGOS		
(FORMERLY KNOWN AS LOS ANGELES COUNTY LA MIRADA GOLF COURSE)		
TRANSFERRED FROM LOS ANGELES COUNTY LA MIRADA GOLF COURSE	590.00	
SOLD IN PART TO DOWNEY, CITY OF	-100.00	
TOTAL		490.00
LOS ANGELES COUNTY SANITATION DISTRICT NO 2		
SUCCESSOR TO VERBURG, KLAASJE (MRS)	10.00	
SUCCESSOR TO WILLIAMS, RALPH P AND MARY	11.00	
DEDICATED TO CERRITOS, CITY OF	-21.00	
TOTAL		0.00
LOS ANGELES COUNTY WATERWORKS DISTRICT NO 1	90.00	
SOLD TO SOUTHERN CALIFORNIA WATER CO	-90.00	
TOTAL		0.00
LOS ANGELES COUNTY WATERWORKS DISTRICT NO 10	674.00	
SOLD TO SOUTHERN CALIFORNIA WATER CO	-674.00	
TOTAL		0.00
LOS ANGELES COUNTY WATERWORKS DISTRICT NO 16	330.00	
SOLD TO SOUTHERN CALIFORNIA WATER CO	-330.00	
TOTAL		0.00
LOS ANGELES PAPER BOX AND BOARD MILLS	257.00	
SOLD TO NATIONAL OFFSETS, INC.	-257.00	
TOTAL		0.00
LOS ANGELES UNION STOCKYARDS CO	0.00	
TOTAL		0.00
LOS NIETOS TRACT 6192 WATER CO	39.00	
(NAME CHANGED TO MUTUAL WATER OWNERS ASSOC OF LOS NIETOS)		
TRANSFERRED TO MUTUAL WATER OWNERS ASSOC OF LOS NIETOS	-39.00	
TOTAL		0.00
LOURENCO, ALDEN		
(SEE LISTING UNDER PINHEIRO, A C AND MARY M)		
LOWELL JOINT SCHOOL DISTRICT	0.00	
TOTAL		0.00
LU, DON C S & SHEILA C (HUSBAND AND WIFE AS JOINT TENANTS) AND JIH-SHEN & YU-HWA CHIANG (HUSBAND AND WIFE AS JOINT TENANTS)		
SUCCESSOR IN PART TO BOER, HENRY AND ANNIE	1.00	
DON C S & SHEILA C LU (HUSBAND AND WIFE AS JOINT TENANTS) QUITCLAIMED THEIR SHARE TO JIH-SHEN AND YU-HWA CHIANG (HUSBAND AND WIFE AS JOINT TENANTS)	-1.00	
TOTAL		0.00
LUCAS, JOE		
(SEE LISTINGS UNDER FERREIRA, MARY A AND JACK GONSALVES)		
PARTITIONED FROM GONSALVES, JACK, JOE LUCAS, PETE KOOPMANS, MANUEL M SOUZA SR, MANUEL M SOUZA JR, FRANK M SOUZA, LOUIE J SOUZA AND MARY A FERREIRA	7.00	
SOLD TO SANTA FE SPRINGS, CITY OF	-7.00	
TOTAL		0.00
LUCKY STORES, INC		
SUCCESSOR TO JOHN-WADE CO	1.00	
SOLD TO WALNUT CREEK CANNING CO	-1.00	
TOTAL		0.00
LUER PACKING CO		
(SEE LISTING UNDER PERRICONE, SAM)		
LUETTO, JAKE J	10.00	
(ORANGE COUNTY NURSERY, INC, TENANT)		
SOLD TO WESTPORT-CERRITOS CO	-10.00	
TOTAL		0.00
LUNDAY-THAGARD OIL CO	212.00	
TOTAL		212.00
LUOND, JOE	6.00	
(FRIEDA ROETHLISBERGER, TENANT AS TO PORTION OF WATER RIGHTS)		
SOLD TO MEINES, WILLIAM, LEO MITZELL, TITLE INSURANCE AND TRUST CO	-6.00	
TOTAL		0.00
LUSCHER, JOHN AND FRIEDA	10.00	
DEDICATED TO CERRITOS, CITY OF	-10.00	
TOTAL		0.00
LUSSMAN, PAUL H JR & ANN AND SIGFRIED & TRINA L	6.00	

BINGGELI (PAUL'S DAIRY, TENANT)		
(NOW KNOWN AS LUSSMAN, PAUL H JR, ET ALL)		
TRANSFERRED TO LUSSMAN, PAUL H JR, ET ALL	-6.00	
TOTAL		0.00
LUSSMAN, PAUL H JR, ET AL		
(FORMERLY KNOWN AS LUSSMAN, PAUL H JR & ANN, AND SIEGFRIED & TRINA L BINGEELI [PAULS DAIRY, TENANT])		
TRANSFERRED FROM LUSSMAN, PAUL H JR & ANN, AND SIEGFRIED & TRINA L BINGGELI (PAUL'S DAIRY, TENANT)	6.00	
SUCCESSOR TO BELLENBAUM, E F AND MARIE P	1.00	
TOTAL		7.00
LUTHERAN CHURCH		
SUCCESSOR IN PART TO GIACOMI, ALFRED AND JENNIE	15.00	
SOLD TO CERRITOS, CITY OF	-15.00	
TOTAL		0.00
LUXURY HOMES, INC		
SUCCESSOR TO BOOTSMA, BERNARD WILLIAM, CARRIE AGNES VAN DAM AND GLADYS MARIE ROMBERG	10.00	
DEDICATED TO CERRITOS, CITY OF	-10.00	
TOTAL		0.00
LYNWOOD, CITY OF	4,990.00	
SUCCESSOR TO FLETCHER, LYNN AND ALBERT	32.00	
SUCCESSOR TO LYNWOOD GARDENS MUTUAL WATER CO	164.00	
SUCCESSOR TO MOBIL OIL CO	138.00	
SUCCESSOR TO SULLY-MILLER CONTRACTING CO	13.00	
TOTAL		5,337.00
LYNWOOD GARDENS MUTUAL WATER CO	164.00	
SOLD TO LYNWOOD, CITY OF	-164.00	
TOTAL		0.00
LYNWOOD PARK MUTUAL WATER CO	222.00	
TOTAL		
	222.00	
LYON, WM, DEVELOPMENT CO, INC		
SUCCESSOR TO SOUTHLAND LUTHERAN HOME	8.00	
SOLD TO BELLFLOWER HOME GARDEN WATER CO	-8.00	
TOTAL		0.00
MACK, JEROME D AND JOYCE		
(SEE LISTING UNDER MOSS, D S & LILLIAN AND JEROME D & JOYCE MACK)		
MAGNUSSON, ROBERTA M	12.00	
(KING KELLY MARMALADE CO, TENANT)		
SOLD TO BOWEN, EDWARD H	-12.00	
TOTAL		0.00
MAIDEN FAIR CO		
SUCCESSOR TO KOOLHAAS, LOUIS	10.00	
DEDICATED TO CERRITOS, CITY OF	-10.00	
TOTAL		0.00
MANCEBO, ANTHONY		0.00
MAPE INDUSTRIES		
SUCCCESSOR TO SAITO, JAMES H AND YOSHINO	2.00	
SOLD TO FEDERATED DEPARTMENT STORES, INC	-2.00	
TOTAL		0.00
MARCHBANK, ROBERT B AND RUBY F		
(SEE LISTING UNDER JENKINS REALTY MUTUAL WATER CO)		
MARCROFT, HAROLD AND MARJORIE	6.00	
(NOBLE G DANIELS, TENANT)		
SOLD TO MOSKOWITZ, IRVING	-6.00	
TOTAL		0.00
MARCUSSON, FLOYD G		
(SEE LISTING UNDER SYKES REALTY CO)		
MARGULIES, KATHRYN AND SCHWARTZ, JON		
SUCCESSOR TO ROSING, LENORE INTER VIVOS TRUST (6-17-15)	3.00	
TOTAL		
	3.00	
MARLOWE, WALTER AND EDNA	1.00	
DEDICATED TO CERRITOS, CITY OF	-1.00	
TOTAL		0.00
MARRIOTT CORP		
SUCCESSOR TO RAVERA, ZELMA	2.00	
SOLD TO SANTA FE SPRINGS, CITY OF	-2.00	
TOTAL		0.00
MARS PETCARE US, INC.		
MERGED FROM: KAL KAN FOODS, INC.	-140.00	
SOLD IN PART TO NORWALK, CITY OF	-50.00	
SOLD IN PART TO LA HABRA HEIGHTS COUNTY WATER DISTRICT	-90.00	
TOTAL		0.00
MARSHBURN, INC		
(SEE LISTING UNDER MEL, INC.)		
MARTIN BROS CONTAINER AND TIMBER PRODUCTS CORP, THE	6.00	
SOLD TO L G G FAMILY TRUST	-6.00	
TOTAL		0.00
MARTIN, MARY	28.00	
SOLD TO CALIFORNIA, STATE OF (DIVISION OF HWY)	-28.00	
SUCCESSOR TO CALIFORNIA, STATE OF (DIV OF HWY)	28.00	
TOTAL		28.00
MATHIAS, ANTONIO AND MARY	13.00	
SOLD TO MAYWOOD MUTUAL WATER CO NO 3	-13.00	
TOTAL		0.00
MAUSOLEUM PARK, INC AND SUN HOLDING CORP	4.00	
(NOW KNOWN AS ANGELES ABBEY MEMORIAL PARK, INC)		
TRANSFERRED TO ANGELES ABBEY MEMORIAL PARK, INC	-4.00	
TOTAL		0.00
MAYFAIR SALES CO, INC		
SUCCESSOR TO SCHUURMAN, JOHN AND ISABEL	12.00	
SOLD TO KAISER-AETNA	-12.00	
TOTAL		0.00
MAYWOOD MUTUAL WATER CO NO 1	741.00	
TOTAL		
	741.00	
MAYWOOD MUTUAL WATER CO NO 2	806.00	
SUCCESSOR TO GONSALVES, MARY	25.00	
SUCCESSOR TO CHANSALL MUTUAL WATER CO	81.00	
TOTAL		
	912.00	
MAYWOOD MUTUAL WATER CO NO 3	1,126.00	
SUCCESSOR TO CLOUGHERTY PACKING CO	64.00	
SUCCESSOR TO GLEN-HAGEN DEVELOPMENT CO	11.00	
SUCCESSOR TO MATHIAS, ANTONIO AND MARY	13.00	
SUCCESSOR TO MEYBERG, LORRAINE K	65.00	
SUCCESSOR TO SANTA FE SPRINGS PROPERTIES	46.00	
SUCCESSOR TO SCHILDER, BEN, JR, AND ANNA	22.00	
SUCCESSOR TO VISSER BROTHERS PROPERTIES	8.00	
SUCCESSOR IN PART TO ALBERS, J N AND NELLIE	76.00	
SUCCESSOR IN PART TO PADDISON, EDWARD AND GRACE M	10.00	
SUCCESSOR IN PART TO RELIANCE DAIRY FARMS	17.00	
SUCCESSOR IN PART TO UNION OIL CO OF CALIFORNIA	63.00	
SUCCESSOR IN PART TO VAN RUITEN, PETE AND MARY	34.00	
SUCCESSOR IN PART TO ZIVELONGHI, GEORGE AND ANTONIO	52.00	
SOLD IN PART TO CERRITOS, CITY OF	-200.00	
TOTAL		1,407.00
MCDOWELL-CRAIG (PROPERTY)		
SUCCESSOR TO MODERN IMPERIAL CO (PROPERTY)	0.00	
TOTAL		0.00
MCLAREN, VELMA AND ARLINE K NUZUM		
SUCCESSOR TO KINNE, EUNICE W	9.00	
SOLD TO LAKEWOOD, CITY OF	-9.00	
TOTAL		0.00
MEINES, WILLIAM, LEO MITZELL, TITLE INSURANCE TRUST CO		
SUCCESSOR TO LUOND, JOE	6.00	
APPORTIONED TO MEINES, WILLIAM AND MARGARET	-2.00	
APPORTIONED TO MITZELL, LEO	-2.00	
APPORTIONED TO TITLE INSURANCE AND TRUST CO	-2.00	
TOTAL		0.00
MEINES, WILLIAM AND MARGARET		
APPORTIONED FROM MEINES, WILLIAM, LEO MITZEL, TITLE INSURANCE AND TRUST CO	2.00	
SOLD TO WESTERN REALCO	-2.00	
TOTAL		0.00
MEIER, LINDA RANDALL		
(SEE LISTING UNDER RANDALL, VILLIS FAMILY TRUST)		
MEL, INC (MARSHBURN, INC, TENANT)	54.00	
(NOW KNOWN AS MEL, INC (VINCE FARMS, INC, TENANT)		
TRANSFERRED TO MEL, INC (VINCE FARMS, INC, TENANT)	-54.00	
TOTAL		0.00
MEL, INC (VINCE FARMS, INC, TENANT)		
TRANSFERRED FROM MEL, INC (MARSHBURN, INC, TENANT)	54.00	
SOLD TO CARMENITA COMMERCE CENTER	-54.00	
TOTAL		0.00
MELLANO, G	10.00	
SUCCESSOR TO MURR, ETTA	3.00	
(NOW KNOWN AS MELLANO, G ET AL)		
TRANSFERRED TO MELLANO, G ET AL	-13.00	
TOTAL		0.00
MELLANO, G, ET AL		
(FORMERLY MELLANO, G)		
TRANSFERRED FROM MELLANO, G	13.00	
SOLD TO S & M MELLANO 1036 PACIFIC LLC (5/24/18)	-4.33	
SOLD TO WALNUT PARK MUTUAL WATER COMPANY (5/24/18)	-8.67	
TOTAL		0.00
MELLEMA, WILBUR		
(SEE LISTING UNDER WEISS, MORRIS AND BESSIE)		
MELLEMA, WILBUR AND MARY		
(SEE LISTING UNDER MURPHY, ELMO D AND EVELENE B)		
MEMORIAL PARKS, INC	34.00	
SOLD TO LINCOLN MEMORIAL PARK, INC	-34.00	
TOTAL		0.00
MERRICK, LYMAN B AND GLADYS L	14.00	
SOLD TO PICO COUNTY WATER DISTRICT	-14.00	
TOTAL		0.00
METROPOLITAN STATE HOSPITAL OF THE STATE OF CALIFORNIA DEPARTMENT OF MENTAL HYGIENE		
(SEE LISTING UNDER CALIFORNIA, STATE OF)		
METZGER, F N	0.00	
TOTAL		0.00
METRO-H20		

SUCESSOR TO HATHAWAY, JESSE R. (12-4-13)	4.07	
TOTAL		4.07
MESA-BERGER CO		
SUCCESSOR TO EUCLID BALL CO	14.00	
SOLD TO SAFEWAY STORES, INC	-14.00	
TOTAL		0.00
MEYBERG, LORRAINE K	65.00	
(L KAUFFMAN CO, INC, TENANT)		
SOLD TO MAYWOOD MUTUAL WATER CO NO 3	-65.00	
TOTAL		0.00
MEYER INDUSTRIAL PROPERTIES, INC		
SUCCESSOR TO MIYOSHI, GLENN, YOSAKU, MASAYO, HARUO, AND MASARU	8.00	
SOLD TO OCCIDENTAL LIFE INS CO OF CALIFORNIA	-8.00	
TOTAL		0.00
MFD-NORWALK		
SUCCESSOR TO FRANCIOSI, GUISEPPI AND ALICE	2.00	
SOLD TO HUNSAKER, RICHARD C	-2.00	
TOTAL		0.00
MICHAEL, C, INC		
SUCCESSOR TO NOTTINGHAM, MABEL E	20.00	
SOLD TO CERRITOS, CITY OF	-20.00	
TOTAL		0.00
MIDLAND PARK WATER TRUST	57.00	
SOLD TO COMPTON, CITY OF	-57.00	
TOTAL		0.00
MIDWAY GARDENS MUTUAL ASSOC	47.00	
SUCCESSOR TO CITY FARMS MUTUAL WATER CO NO 2	12.00	
SUCCESSOR IN PART TO BOERE, EDNA	28.00	
SOLD TO PARAMOUNT, CITY OF	-87.00	
TOTAL		0.00
MIERSMA, HARRY C AND DOROTHY L	10.00	
SOLD TO CORP OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS	-10.00	
TOTAL		0.00
MIERSMA, HENRY AND SUSAN M	6.00	
SOLD TO CERRITOS, CITY OF	-6.00	
TOTAL		0.00
MILLER, WILLIS L	0.00	
TOTAL		0.00
MILESKI, DAVE		
SUCCESSOR TO HAMBARIAN, FRED	2.00	
SOLD TO CERRITOS, CITY OF	-2.00	
TOTAL		0.00
MIMAKI, GEORGE & MITSUKO AND YOSHIO & BARBARA KONO	2.00	
(LOMA FLORAL CO, TENANT)		
(NOW KNOWN AS MIMAKI, GEORGE, ET AL)		
TRANSFERRED TO MIMAKI, GEORGE, ET AL	-2.00	
TOTAL		0.00
MIMAKI, GEORGE, ET AL		
(FORMERLY KNOWN AS MIMAKI, GEORGE & MITSUKO AND YOSHIO & BARBARA KONO (LOMA FLORAL CO, TENANT)		
TRANSFERRED FROM MIMAKI, GEORGE & MITSUKO AND YOSHIO & BARBARA KONO (LOMA FLORAL CO, TENANT)	2.00	
SOLD TO HUNTINGTON PARK, CITY OF	-2.00	
TOTAL		0.00
MITCHELL, RAY		
(SEE LISTING UNDER CORP OF THE PRESIDING BISHOP OF THE CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS,		
(SEE ALSO LISTING UNDER RUGGIERI, FRANK & VADA AND DAVID & FAY SELDEEN)		
MITSUUCHI, FUMIKO, AKA MARY MITSUUCHI	11.00	
(Z VAN SPANJE, TENANT AS TO ONE ACRE-FOOT)		
TRANSFERRED TO MITSUUCHI, MARY F TRUST	-11.00	
TOTAL		0.00
MITSUUCHI, MARY F TRUST		
TRANSFERRED FROM MITSUUCHI, FUMIKO, AKA MARY MITSUUCHI	11.00	
TOTAL		11.00
MITZELL, LEO		
APPORTIONED FROM MEINES, WILLIAM, LEO MITZELL, TITLE INSURANCE AND TRUST CO	2.00	
SOLD TO ULLRICH PROPERTIES	-2.00	
TOTAL		0.00
MIYASAKI, YONEICHI	0.00	
TOTAL		0.00
MIYOSHI, GLENN, YOSAKU MIYOSHI, MASAYO MIYOSHI, HARUO MIYOSHI AND MASARU MIYOSHI, DBA AS MIYOSHI BROS	8.00	
SOLD TO MEYER INDUSTRIAL PROPERTIES, INC	-8.00	
TOTAL		0.00
MOBIL OIL CORP		
(FORMERLY KNOWN AS SOCONY MOBILE OIL CO, INC)		
TRANSFERRED FROM SOCONY MOBIL OIL CO, INC	138.00	
SOLD TO LYNWOOD, CITY OF	-138.00	
TOTAL		0.00
MOCHO, JEAN AND MICHEL PLAA	9.00	
SOLD TO TITLE INSURANCE AND TRUST CO	-9.00	
TOTAL		0.00
MODERN IMPERIAL CO	57.00	
SOLD TO MCDOWELL-CRAIG (PROPERTY)	-0.00	
SOLD TO SMITH, RALPH E, ET AL	-57.00	
TOTAL		0.00
MONTEBELLO, CITY OF	208.00	
SUCCESSOR TO CHAPIN, MAYNARD W, EXECUTOR OFHUGH L CHAPIN ESTATE	29.00	
SUCCESSOR IN PART TO KOOPMANS, PETE	11.00	
SUCCESSOR IN PART TO PARK WATER CO	132.50	
SUCCESSOR IN PART TO SOUZA, MANUEL M SR, MANUEL M SOUZA JR, FRANK M SOUZA AND LOUIE J SOUZA	6.00	
TOTAL		
	386.50	
MONTEBELLO, CITY OF - GOLF		
(SEE LISTING UNDER MONTEBELLO, CITY OF)		
MONTEBELLO LAND AND WATER CO	1,592.00	
SUCCESSOR TO VAN DAM, CORNELIUS A AND FLORENCE	32.00	
SUCCESSOR TO JONES COMPANY, THE (7/26/2012)	70.00	
SUCCESSOR TO FRAMPTON, HARVEY (10-28-2013)	10.00	
SUCCESSOR TO FRAMPTON, WILLAM H (10-28-2013)	25.00	
SUCCESSOR TO AQUA CAPITAL MANAGEMENT L.P. (07/01/15)	100.00	
TOTAL		
	1,829.00	
MONTEREY ACRES MUTUAL WATER CO	102.00	
SOLD TO LAKEWOOD, CITY OF	-102.00	
TOTAL		0.00
MONTGOMERY ROSS FISHER, INC		
SUCCESSOR TO GOEDHART, HARRY N, ETC	17.00	
SOLD TO SUMA HOMES, INC AND NOVA HOMES, INC	-17.00	
TOTAL		0.00
MOONS, NICHOLAAS J		
(SEE LISTING UNDER KINNE, ORAAN (MRS))		
MOORE, ALEXANDER AND BETTY L	13.00	
SOLD TO WEST PAC, LTD	-13.00	
TOTAL		0.00
MOORE, NEAL	0.00	
TOTAL		0.00
MOOSCHEKIAN, ALYCE	0.00	
TOTAL		0.00
MOOSCHEKIAN, REUBEN	12.00	
SOLD TO DOWNEY, CITY OF	-12.00	
TOTAL		0.00
MORIARTY, W PATRICK		
SUCCESSOR TO DAON CORP	656.00	
SOLD TO COMMERCE, CITY OF	-656.00	
TOTAL		0.00
MORRIS, WILLIAM R	1.00	
(SEE ALSO LISTING UNDER ASSOCIATED SOUTHERN INVESTMENT CO)		
SOLD TO DE CORDOVA, JUAN	-1.00	
TOTAL		0.00
MOSKOWITZ, IRVING		
SUCCESSOR TO MARCROFT, HAROLD AND MARJORIE	6.00	
SOLD TO HORSESHOE CATTLE CO	-6.00	
TOTAL		0.00
MOSS, D S & LILLIAN AND JEROME D & JOYCE MACK	4.00	
SOLD TO SMITH, RALPH E, ET AL	-4.00	
TOTAL		0.00
MOUNTAIN VIEW DAIRIES, INC	54.00	
DEDICATED TO CERRITOS, CITY OF VIA BECHLER CORP AND PACIFIC COAST PROPERTIES	-54.00	
TOTAL		0.00
MUELLER, JULES A AND DAVID M REED		
SUCCESSOR TO FARRIES, KENNETH A AND WANDA	1.00	
SOLD TO DAUGHERTY, JULES E AND HATTIE L	-1.00	
TOTAL		0.00
MURAKAWA, KIYOSHI AND SHIZUKO	0.00	
SOLD TO LANGSLET, C ROBERT AND SON, INC	-0.00	
TOTAL		0.00
MURATA, DAISAKU, FUI MURATA, HATSUYE MURATA, KENJI MURATA, SETSUKO MURATA AND TAKEO MURATA	12.00	
(NOW KNOWN AS MURATA, DAISAKU, ET AL)		
TRANSFERRED TO MURATA, DAISAKU, ET AL	-12.00	
TOTAL		0.00
MURATA, DAISAKU, ET AL		
(FORMERLY KNOWN AS MURATA, DAISAKU, FUI MURATA, HATSUYE MURATA, KENJI MURATA, SETSUKO MURATA AND TAKEO MURATA)		
TRANSFERRED FROM MURATA, DAISAKU, FUI MURATA, HATSUYE MURATA, KENJI MURATA, SETSUKO MURATA, AND TAKEO MURATA	12.00	
SOLD TO DOWNEY, CITY OF	-12.00	
TOTAL		0.00
MURATA, KENJI		
(SEE LISTING UNDER SOUTHERN CALIFORNIA EDISON CO)		
MURPHY, ELMO D AND EVELENE B	18.00	
(MORRIS AND BESSIE WEISS, WILBUR AND MARY MELLEMA, TENANTS)		
SUCCESSOR TO WEISS, MORRIS	6.00	
SUCCESSOR TO WEISS, MORRIS AND BESSIE	16.00	
SOLD TO BELINDA WESTERN CO	-6.00	
SOLD TO COAST PACKING CO	-24.00	
SOLD TO FRAMPTON, HARVEY	-10.00	

TOTAL		0.00
MURPHY RANCH MUTUAL WATER CO	461.00	
SOLD TO SOUTHWEST SUBURBAN WATER CO	-461.00	
TOTAL		0.00
MURR, ETTA	3.00	
SOLD TO MELLANO, G AND HARRY M	-3.00	
TOTAL		0.00
MURRAY, R B AND GLADYS J	0.00	
TOTAL		0.00
MUSSACHIA, CARL A, FRANCIS J MUSSACHIA, ANTHONY G MUSSACHIA JR, ANNA MARIE CAOLE AS TO UNDIVIDED ONE-FOURTH INTEREST		
SUCCESSOR TO MUSSACHIA, TONY G AND ANNA M	8.00	
DEDICATED IN PART TO CERRITOS, CITY OF	-2.00	
SOLD IN PART TO SANTA FE SPRINGS, CITY OF	-6.00	
TOTAL		0.00
MUSSACHIA, TONY G AND ANNA M	8.00	
SOLD TO MUSSACHIA, CARL A, FRANCIS J MUSSACHIA, ANTHONY G MUSSACHIA JR, ANNA MARIE CAOLE AS TO UNDIVIDED ONE-FOURTH INTEREST	-8.00	
TOTAL		0.00
MUTUAL WATER OWNERS ASSOC OF LOS NIETOS (NAME CHANGED FROM LOS NIETOS TRACT 6192 WATER CO)		
TRANSFERRED FROM LOS NIETOS TRACT 6192 WATER CO	39.00	
SOLD TO SAN GABRIEL VALLEY WATER CO	-39.00	
TOTAL		0.00
MYRNDAHL, MARY	9.00	
(NICK P KOOT, TENANT)		
SOLD TO GULF OIL CO	-9.00	
TOTAL		0.00
NAKAMURA, SAM AND TOKIKO	2.00	
SOLD TO EMOTO, JOHN H AND SHIZUKO	-2.00	
TOTAL		0.00
NANCY DEE KEANE LIVING TRUST		
SUCCESSOR IN PART TO ZANE LIVING TRUST (2/20/2013)	4.00	
TOTAL		4.00
NATIONAL CAN CORP		
SUCCESSOR TO LEWIS FOOD CO	113.00	
(NOW KNOWN AS LEWIS FOODS-DIV NCC PET FOODS CORP)		
TRANSFERRED TO LEWIS FOODS-DIV NCC PET FOODS CORP	-113.00	
TOTAL		0.00
NATIONAL OFFSETS, INC.		
SUCCESSOR TO LOS ANGELES PAPER BOX AND BOARD MILLS	257.00	
SOLD TO AQUA CAPITAL MANAGEMENT LP	-257.00	
TOTAL		0.00
NATIONWIDE PROPERTY DEVELOPMENT CO INC		
SUCCESSOR IN PART TO SWIFT AND CO	742.00	
SOLD IN PART TO PICO COUNTY WATER DISTRICT	-600.00	
SOLD IN PART TO SANTA FE SPRINGS, CITY OF	-142.00	
TOTAL		0.00
NAUTA, LEO		
(SEE LISTING UNDER OSINGA, JOHN)		
NAUTA, PETE		
(SEE LISTING UNDER VANDENBERG, JACOB AND ANNA)		
NAVA CONSTRUCTION CO		
SUCCESSOR TO SYTSMA, ANDY AND DOROTHY	16.00	
DEDICATED TO CERRITOS, CITY OF	-16.00	
TOTAL		0.00
NELLES, FRED C, SCHOOL FOR BOYS OF THE STATE OF CALIFORNIA DEPT. OF THE YOUTH AUTHORITY		
(SEE LISTING UNDER CALIFORNIA, STATE OF)		
NELSON, OTELIA AND ROBERT	11.00	
(SHELTER SUPERIOR DAIRY, TENANT)		
SOLD TO BELLFLOWER HOME GARDEN WATER CO	-11.00	
TOTAL		0.00
NEW ENGLAND LIFE INSURANCE CO		
SUCCESSOR IN PART TO RAVERA, MARY	19.00	
SOLD TO DUNN INDUSTRIAL PROPERTIES CORP	-19.00	
TOTAL		0.00
NEW ENGLAND MUTUAL LIFE INSURANCE CO		
SUCCESSOR TO WESTERN REALCO	2.00	
TOTAL		2.00
NEW LIFE COMMUNITY CHURCH		
(FORMERLY KNOWN AS ARTESIA REFORMED CHURCH)		
TRANSFERRED FROM ARTESIA REFORMED CHURCH	10.00	
SOLD TO SANTA FE SPRINGS, CITY OF	-10.00	
TOTAL		0.00
NEWARK GROUP, INC., THE		
SUCCESSOR TO FEDERAL PAPER BOARD CO, INC	757.00	
SOLD IN PART TO AQUA CAPITAL MANAGEMENT LP	-200.00	
SOLD IN PART TO AQUA CAPITAL MANAGEMENT LP	-200.00	
SOLD IN PART TO AQUA CAPITAL MANAGEMENT LP (11-9-2011)	-100.00	
SOLD IN PART TO PARK WATER COMPANY (11-20-2013)	-100.00	
TOTAL		157.00
NEWPORT SHORES BUILDERS		
SUCCESSOR TO ROCHA, FRANK J JR AND ELSIE M	10.00	
SUCCESSOR IN PART TO OFFINGA, WILLIAM AND SON, INCLUDING SIDNEY OFFINGA	12.00	
DEDICATED TO CERRITOS, CITY OF	-22.00	
TOTAL		0.00
N I INDUSTRIES, INC		
(FORMERLY KNOWN AS NORRIS INDUSTRIES, INC)		
TRANSFERRED FROM NORRIS INDUSTRIES INC	138.00	
SOLD TO AQUA CAPITAL MANAGEMENT LP	-138.00	
TOTAL		0.00
NIEKERK, SIMON S AND ROSE	3.00	
(NIEKERK HAY CO, TENANT)		
SOLD TO FARMERS & MERCHANTS BANK OF LONG BEACH	-3.00	
TOTAL		0.00
N L INDUSTRIES, METAL DIVISION-WESTERN REGION		
SUCCESSOR TO KIRK, MORRIS P AND SON, INC	62.00	
(NOW KNOWN AS GOULD, INC)		
TRANSFERRED TO GOULD, INC	-62.00	
TOTAL		0.00
NORRIS INDUSTRIES, INC		
(CORPORATE NAMED FROM NORRIS-THERMADOR CORP)		
TRANSFERRED FROM NORRIS-THERMADOR CORP	138.00	
(NAME CHANGED TO N I INDUSTRIES, INC)		
TRANSFERRED TO N I INDUSTRIES, INC	-138.00	
TOTAL		0.00
NORRIS-THERMADOR CORP	138.00	
(CORPORATE NAME CHANGED TO NORRIS INDUSTRIES, INC)		
TRANSFERRED TO NORRIS INDUSTRIES, INC	-138.00	
TOTAL		0.00
NORTH GATE GARDENS WATER CO	48.00	
SOLD TO LONG BEACH, CITY OF	-48.00	
TOTAL		0.00
NORTHROP CORP		
SUCCESSOR IN PART TO FORD MOTOR CO	4.50	
NAME CHANGED TO NORTHROP GRUMMAN SYSTEMS CORORATION	-4.50	
TOTAL		0.00
NORTHROP GRUMMAN SYSTEMS CORPORATION		
NAME CHANGED FROM NORTHROP CORPORATION		
TRANSFERRED FROM NORTHROP CORPORATION	4.50	
TOTAL		4.50
NORWALK, CITY OF	490.00	
SUCCESSOR TO JUNIOR WATER CO, INC	590.00	
SUCCESSOR TO RYDER, BAYARD	8.00	
SUCCESSOR IN PART TO SANTA FE SPRINGS, CITY OF	179.00	
SUCCESSOR IN PART TO COUNTY WATER COMPANY VIA EMINENT DOMAIN	456.00	
SUCCESSOR IN PART TO MARS PETCARE US, INC.	50.00	
SUCCESSOR IN PART TO VERNON, CITY OF (3/18/2013)	500.00	
TOTAL		2,273.00
NORWALK-LA MIRADA CITY SCHOOL DISTRICT	288.00	
(NOW KNOWN AS NORWALK-LA MIRADA UNIFIED SCHOOL DISTRICT)		
TRANSFERRED TO NORWAL-LA MIRADA UNIFIED SCHOOL DISTRICT	-288.00	
TOTAL		0.00
NORWALK-LA MIRADA UNIFIED SCHOOL DISTRICT		
(FORMERLY KNOWN AS NORWALK-LA MIRADA CITY SCHOOL DISTRICT)		
TRANSFERRED FROM NORWAL-LA MIRADA UNIFIED SCHOOL DISTRICT	288.00	
SUCCESSOR IN PART TO EXCELSIOR UNION HIGH SCHOOL DISTRICT	142.00	
SOLD TO PARK WATER CO	-52.00	
TOTAL	378.00	
NORWALK MOBILE LODGE		
(SEE LISTING UNDER FLESCH, ELIZABETH, ETC)		
NOTTINGHAM, MABEL E	20.00	
(LESLIE NOTTINGHAM, TENANT)		
SOLD TO MICHAEL, C INC	-20.00	
TOTAL		0.00
NUZUM, ARLINE K		
(SEE LISTING UNDER MCLAREN, VELMA AND ARLINE K NUZUM)		
OCCIDENTAL LIFE INSURANCE CO OF CALIFORNIA		
SUCCESSOR TO MEYER INDUSTRIAL PROP INC	8.00	
SOLD TO FIRST INTERSTATE BANK	-8.00	
TOTAL		0.00
OFFINGA, WILLIAM AND SON, INCLUDING SIDNEY OFFINGA		
(SEE LISTING UNDER BOER, HENRY)		
SUCCESSOR IN PART TO BOER, HENRY AND ANNIE	26.00	
SOLD IN PART TO NEWPORT SHORES BUILDERS	-12.00	
SOLD IN PART TO SANTA FE SPRINGS, CITY OF	-14.00	
TOTAL		0.00
OGDEN, CLAUDIA		
SUCCESSOR TO STAAT, HERMAN F AND CHARLOTTE H	2.00	
SOLD TO TE VELDE, HARM AND ZWAANTINA	-2.00	
TOTAL		0.00
OLIVE LAWN MEMORIAL PARK, INC	11.00	
SOLD TO SOUTHWEST WATER CO	-11.00	
TOTAL		0.00
OLTMANS CONSTRUCTION CO		
SUCCESSOR TO RIOS, REBECCA & RIOS, JESUS & RIOS, ERASMO	3.00	

TOTAL		3.00
O N K FARMS		
SUCCESSOR TO CHIKAMI, SHIGERU AND JACK	8.00	
TOTAL		8.00
OORD, JOHN	0.00	
TOTAL		0.00
OOSTEN, MARINUS AND ANTHONIA	13.00	
SOLD TO PRESLEY DEVELOPMENT CO	-13.00	
TOTAL		0.00
OOSTEN, RALPH AND CAROLINE	41.00	
(FRANK LORENZ, TENANT AS TO 13 ACRE-FEET OF WATER RIGHT AND 10 ACRE-FEET OF ALLOWED PUMPING ALLOCATION)		
SOLD TO AVERY, MARGARET M	-41.00	
TOTAL		0.00
ORANGE COUNTY NURSERY, INC	13.00	
(SEE ALSO LISTINGS UNDER DEVER, RUTH E; LUETTO, JAKE J; AND RAVERA, MARY)		
SOLD TO CALIFORNIA DOMESTIC WATER CO (06/30/2010)	-13.00 -	
TOTAL		0.00
ORCHARD DALE COUNTY WATER DISTRICT	1,107.00	
(NAME CHANGED TO ORCHARD DALE WATER DISTRICT)		
TRANSFERRED TO ORCHARD DALE WATER DISTRICT	-1,107.00	
TOTAL		0.00
ORCHARD DALE WATER DISTRICT		
(NAME CHANGED FROM ORCHARD DALE COUNTY WATER DISTRICT)		
TRANSFERRED FROM ORCHARD DALE COUNTY WATER DISTRICT	1,107.00	
SUCCESSOR TO CANDLEWOOD COUNTRY CLUB (06/30/2010)	147.00	
TOTAL		1,254.00
ORCHARD PARK WATER CLUB, INC	40.00	
SOLD TO CERRITOS, CITY OF	-40.00	
TOTAL		0.00
ORIENTAL FOODS, INC	27.00	
(NAME CHANGED TO JAN-U-WINE FOODS, INC)		
TRANSFERRED TO JAN-U-WINE FOODS, INC	-27.00	
TOTAL		0.00
ORLA CO	6.00	
(JOHN D. WESTRA, TENANT)		
SOLD TO VONS GROCERY STORES	-6.00	
TOTAL		0.00
ORMONDE, VIVA		
(SEE LISTING UNDER VAN DAM, HANK AND JESSIE)		
OROPEZA, PABLO AND AURELIA G	1.00	
(PABLO OROPEZA, JR, TENANT)		
(SEE ALSO LISTING UNDER TARR AND MCCOMB OIL CO, LTD)		
SOLD TO BUCKLEY, ARTHUR W AND MARIAN J	-1.00	
TOTAL		0.00
OSINGA, JOHN	5.00	
(LEO NAUTA, TENANT)		
SOLD TO BENDETTI, DONALD L, ET AL	-5.00	
TOTAL		0.00
OURIQUE, MANUEL B		
(SEE LISTING UNDER BORGES, JOHN AND MARY)		
OU2 ENVIRONMENTAL REMEDIATION TRUST		
SUCCESSOR TO ECOGAS INC. (5/19/20)	7.97	
TOTAL		7.97
OWENS, SEYMOUR		
(SEE LISTING UNDER PERRICONE, SAM AND SEYMOUR OWENS)		
OWL CONSTRUCTORS	16.00	
SOLD TO SANTA FE SPRINGS, CITY OF	-16.00	
TOTAL		0.00
P B S CORP		
SUCCESSOR TO CALIFORNIA COTTON OIL CORP	8.00	
DEDICATED TO CERRITOS, CITY OF	-8.00	
TOTAL		0.00
PABCO BUILDING PRODUCTS, LLC.		
SUCCESSOR TO PACIFIC COAST BUILDING PRODUCTS, INC.	800.00	
SOLD IN PART TO PETERSBURG, L.P.	-300.00	
TOTAL		500.00
PACIFIC COAST BUILDING PRODUCTS, INC		
SUCCESSOR IN PART TO PACIFIC COAST PACKAGING CORP	800.00	
SOLD TO PABCO BUILDING PRODUCTS, LLC.	-800.00	
TOTAL		0.00
PACIFIC COAST PACKAGING CORP		
SUCCESSOR TO FIBREBOARD CO	1,217.00	
SOLD IN PART TO CERRITOS, CITY OF	-417.00	
SOLD IN PART TO PACIFIC COAST BUILDING PRODUCTS, INC	-800.00	
TOTAL		0.00
PACIFIC CONDOMINIUM MANAGEMENT INC		
SUCCESSOR TO WATTS LABOR COMMUNITY ACTION COMMITTEE	913.00	
SOLD TO TRACT NUMBER ONE HUNDRED AND EIGHTY WATER CO	-913.00	
TOTAL		0.00
PACIFIC ELECTRIC RAILWAY CO	12.00	
(GERRIT VAN LEEUWEN OF 15405 SHOEMAKER ROAD, NORWALK, TENANT AS TO 11 ACRE-FEET OF WATER RIGHT, AND 9 ACRE-FEET OF ALLOWED PUMPING ALLOCATION)		
(NOW KNOWN AS SOUTHERN PACIFIC TRANSPORTATION CO)		
TRANSFERRED TO SOUTHERN PACIFIC TRANS CO	-12.00	
TOTAL		0.00
PACKERS MUTUAL WATER CO	34.00	
SOLD TO ADAMS, JULES H	-34.00	
TOTAL		0.00
PADDISON, EDWARD G AND GRACE M	14.00	
SOLD IN PART TO MAYWOOD MUTUAL WATER CO NO 3	-10.00	
SOLD IN PART TO SCANTLEBURY, ROBERT P	-4.00	
TOTAL		0.00
PARADISE MEMORIAL PARK		
SUCCESSOR TO CREST HOLDING CORP	16.00	
TOTAL		16.00
PARAMOUNT, CITY OF		
(FORMERLY KNOWN AS PARAMOUNT COUNTY WATER DISTRICT)		
TRANSFERRED FROM PARAMOUNT COUNTY WATER DISTRICT	2,374.00	
SUCCESSOR TO BOOGAARD, JOHN, SUSAN PATRICIA BOOGAARD, CORNILIUS W BOOGAARD AND WILLA J BOOGAARD	5.00	
SUCCESSOR TO CENTURY CENTER MUTUAL WATER ASSOC	307.00	
SUCCESSOR TO CENTURY CITY MUTUAL WATER CO, LTD	50.00	
SUCCESSOR TO MIDWAY GARDENS MUTUAL WATER ASSOC	87.00	
SUCCESSOR TO VAN DIEST WATER CO	60.00	
SUCCESSOR IN PART TO PARK WATER CO	3,000.00	
TOTAL		5,883.00
PARAMOUNT COUNTY WATER DISTRICT	2374.00	
(NOW KNOWN AS PARAMOUNT, CITY OF)		
TRANSFERRED TO PARAMOUNT, CITY OF	-2374.00	
TOTAL		0.00
PARAMOUNT FARMS		
(SEE LISTING UNDER GOEDHART, HARRY N, ETC)		
PARAMOUNT UNIFIED SCHOOL DISTRICT	46.00	
TOTAL		46.00
PARK WATER CO	19,674.00	
(Name changed to Liberty Utilities Corporation – 2016).)		
SUCCESSOR TO CERRITOS PARK MUTUAL WATER CO	62.00	
SUCCESSOR TO UEHLING WATER CO	755.00	
SUCCESSOR IN PART TO NORWALK-LA MIRADA UNIFIED SCHOOL DISTRICT	52.00	
SUCCESSOR IN PART TO SOUTHERN CALIFORNIA WATER CO	72.00	
SOLD IN PART TO BELL GARDENS, CITY OF	-1,914.00	
SOLD IN PART TO COMMERCE, CITY OF	-2,400.00	
SOLD IN PART TO DOWNEY, CITY OF	-8,600.00	
SOLD IN PART TO MONTEBELLO, CITY OF	-132.50	
SOLD IN PART TO PARAMOUNT, CITY OF	-3,000.00	
SOLD IN PART TO PICO RIVERA, CITY OF	-2,300.00	
SOLD IN PART TO SOUTH GATE, CITY OF	-2,000.00	
SOLD IN PART TO SOUTHERN CALIFORNIA WATER CO	-267.20	
SUCCESSOR TO LA HACIENDA WATER COMPANY	1.00	
SUCCESSOR IN PART TO NEWARK GROUP INC., THE (11-20-2013)	100.00	
SUCCESSOR IN PART TO AQUA CAPITAL MANAGEMENT LP (1-9-2014)	600.00	
TRANSFERRED TO LIBERTY UTILITIES CORPORATION	-702.30	
TOTAL		0.00
PARSONSON, W J	0.00	
TOTAL		0.00
PASMA, RUDOLPH AND FRANCES C	8.00	
SOLD TO TRINITY LUTHERAN CHURCH	-8.00	
TOTAL		0.00
PATRICIAN ASSOCIATES, INC AND MAJESTIC REALTY CO		
SUCCESSOR TO SIMON, NORTON INC-MUSEUM OF ART	12.00	
TOTAL		12.00
PAULS DAIRY		
(SEE LISTING UNDER LUSSMAN, PAUL H JR & ANN AND SIGFRIED & TRINA L BINGGELI)		
PAYTON, LA VERNE (MRS)	1.00	
SOLD TO BEUSING, J	-1.00	
TOTAL		0.00
PECOS PARK		
SUCCESSOR TO DAIRY VALLEY ASSOCIATES	1.00	
SUCCESSOR TO HOLMES, KYLE R AND GRACE ELLEN	16.00	
SOLD TO COLWELL CO	-17.00	
TOTAL		0.00
PEERLESS LAND AND WATER CO, INC	986.00	
(NAME CHANGED TO PEERLESS WATER CO)		
TRANSFERRED TO PEERLESS WATER CO	-986.00	
TOTAL		0.00
PEERLESS WATER CO		
(NAME CHANGED FROM PEERLESS LAND AND WATER CO, INC)		
TRANSFERRED FROM PEERLESS LAND AND WATER	986.00	

CO, INC		
SOLD TO BELLFLOWER, CITY OF	-986.00	
TOTAL		0.00
PENDER, MARK L AND MARY VIRGINIA		
SUCCESSOR IN PART TO LANGSLET, C ROBERT & SON INC	2.00	
SOLD TO VIRGINIA COUNTRY CLUB	-2.00	
TOTAL		0.00
PEREIRA, J C JR, AND EZAURA	27.00	
SOLD TO GREEN HILLS DEVELOPMENT, INC	-27.00	
TOTAL		0.00
PERK/LEWIS FOODS – DIV C H B FOODS		
(FORMERLY KNOWN AS LEWIS FOODS - DIV C H B FOODS, INC)		
TRANSFERRED FROM LEWIS FOODS – DIV C H B FOODS, INC	113.00	
SOLD TO SIGNAL HILL, CITY OF	-113.00	
TOTAL		0.00
PERRICONE, SAM AND LOUIS ROMOFF	86.00	
(LUER PACKING CO, TENANT)		
SOLD TO PERRICONE, SAM AND SEYMOUR OWENS	-86.00	
TOTAL		0.00
PERRICONE, SAM AND SEYMOUR OWENS		
SUCCESSOR TO PERRICONE, SAM AND LOUIS ROMOFF	86.00	
SOLD TO U S GROWERS COLD STORAGE, INC	-86.00	
TOTAL		0.00
PETERSBURG, L.P.		
SUCCESSOR IN PART TO PABCO BUILDING PRODUCTS, LLC	300.00	
SOLD TO CALIFORNIA DOMESTIC WATER COMPANY (7-1-14)	-299.00	
TOTAL		1.00
PETERSON MANUFACTURING CO, INC	58.00	
SOLD TO CBP RESOURCES, INC	-58.00	
TOTAL		0.00
PHELPS DODGE COPPER PRODUCTS CORP	312.00	
(NOW KNOWN AS PHELPS DODGE BRASS CO-LOS ANGELES DIVISION)		
TRANSFERRED TO PHELPS DODGE BRASS CO-LOS ANGELES DIVISION	-312.00	
TOTAL		0.00
PHELPS DODGE BRASS CO-LOS ANGELES DIVISION		
(FORMERLY KNOWN AS PHELPS DODGE COPPER PRODUCTS CORP)		
TRANSFERRED FROM PHELPS DODGE COPPER PRODUCTS CORP	312.00	
SOLD TO SINCLAIR PAINT CO	-312.00	
TOTAL		0.00
PHOENIX TALLOW CO		
SUCCESSOR TO BAKER COMMODITIES, INC	119.00	
SOLD TO BAKER COMMODITIES, INC	-119.00	
TOTAL		0.00
PICO BOYS BASEBALL, INC		
SUCCESSOR IN PART TO UNION OIL CO OF CALIFORNIA	13.00	
TOTAL		13.00
PICO COUNTY WATER DISTRICT	2,993.00	
SUCCESSOR TO ABBOTT, J P, INC	17.00	
SUCCESSOR TO MERRICK, LYMAN B AND GLADYS L	14.00	
SUCCESSOR IN PART TO NATIONWIDE PROPERTY DEVELOPMENT, INC	600.00	
(NOW KNOWN AS PICO WATER DISTRICT)		
TRANSFERRED TO PICO WATER DISTRICT	-3,624.00	
TOTAL		0.00
PICO RIVERA, CITY OF		
SUCCESSOR TO KLUG, J W DEVLOPMENT CO INC	42.00	
SUCCESSOR TO KRUSE, WALTER G AND MRS WALTER G KRUSE	9.00	
SUCCESSOR TO UNION PACKING CO	80.00	
SUCCESSOR TO WALNUT IRRIGATION DISTRICT	123.00	
SUCCESSOR IN PART TO PARK WATER CO	2,300.00	
SUCCESSOR IN PART TO ROCKVIEW DAIRIES, INC	25.00	
SUCCESSOR IN PART TO SAN GABRIEL VALLEY WATER CO	3,000.00	
TOTAL		5,579.00
PICO WATER DISTRICT		
(FORMERLY KNOWN AS PICO COUNTY WATER DISTRICT)		
TRANSFERRED FROM PICO COUNTY WATER DISTRICT	3,624.00	
TOTAL		3,624.00
PIEDMONT HEIGHTS WATER CLUB	6.00	
SOLD TO LONG BEACH, CITY OF	-6.00	
TOTAL		0.00
PIMENTAL, LUCILLE C	13.00	
(RICHARD PIMENTAL AND PIMENTAL DAIRY, TENANTS)		
SOLD TO COAST PACKING CO	-13.00	
TOTAL		0.00
PINE, JOE		
(SEE LISTING UNDER NAME OF PINHEIRO, A C AND MARY M)		
PINHEIRO, A C AND MARY M	102.00	
(ALDEN LOURENCO, TENANT AS TO 9 ACRE-FEET OF WATER RIGHT AND 7 ACRE-FEET OF ALLOWED PUMPING ALLOCATION, AND JOE PINE, TENANT AS TO 13 ACRE-FEET OF WATER RIGHT AND 10 ACRE-FEET OF ALLOWED PUMPING ALLOCATION)		
DEDICATED IN PART TO CERRITOS, CITY OF	-4.00	
SOLD TO SNOW, JAMES M AND ESSIE M	-24.00	
SOLD IN PART TO SANTA FE SPRINGS, CITY OF	-34.00	
SOLD IN PART TO SANTA FE SPRINGS, CITY OF	-40.00	
TOTAL		0.00
PINTO, FRED AND MARY	4.00	
SOLD TO SAN ANTONIO DAIRY FEEDS CO	-4.00	
TOTAL		0.00
PIRES, FRANK		
(SEE LISTING UNDER SIMAS, FRANK AND MABEL)		
PIRES, TONY C AND LAURA C	25.00	
DEDICATED TO CERRITOS, CITY OF	-25.00	
TOTAL		0.00
PLAA, MICHEL		
(SEE LISTING UNDER MOCHO, JEAN AND MICHEL PLAA)		
PLUNKETT, DONALD R	42.00	
(NOW KNOWN AS PLUNKETT WATER CO)		
TRANSFERRED TO PLUNKETT WATER CO	-42.00	
TOTAL		0.00
PLUNKETT WATER CO		
(FORMERLY KNOWN AS PLUNKETT, DONALD R)		
TRANSFERRED FROM PLUNKETT, DONALD R	42.00	
SUCCESSOR TO ERICKSON, JOHN A	2.00	
SOLD TO ERICKSON, JOHN A	-22.00	
SOLD IN PART TO COUNTY WATER CO (09-6-68)	-20.00	
SOLD IN PART TO COUNTY WATER CO (10-1-78)	-2.00	
TOTAL		0.00
POHATON CORP		
SUCCESSOR TO PYLMAN, RALPH AND IDA	10.00	
SOLD TO LAKEWOOD, CITY OF	-10.00	
TOTAL		0.00
POLO PROPERTIES, LTD		
SUCCESSOR TO GOLDEN WOOL CO	8.00	
SOLD TO TUCKER, WILLIAM M, RICARDO HESS VAHRENHOLT AND ROBERTO HESS VAHRENHOLT	-8.00	
TOTAL		0.00
POMERING TRACT WATER ASSOC	26.00	
SOLD TO DOWNEY, CITY OF	-26.00	
TOTAL		0.00
POOL, CLARENCE	19.00	
SOLD TO HAMM, THEO BREWING CO	-19.00	
TOTAL		0.00
PORTE, GARRET AND CECELIA	28.00	
SOLD TO WHITTIER, CITY OF	-28.00	
TOTAL		0.00
POSTMA, VERONICA	13.00	
SOLD TO SOUTHERN PACIFIC CO	-13.00	
TOTAL		0.00
POWELL, C H	1.00	
SOLD TO EDWARDS, ART	-1.00	
TOTAL		0.00
POWERINE OIL CO	627.00	
SUCCESSOR TO HORSESHOE CATTLE CO	268.00	
SUCCESSOR TO SMITH, RALPH E, ET AL	56.00	
SOLD IN PART TO SANTA FE SPRINGS, CITY OF	-700.00	
SOLD IN PART TO SOUTH MONTEBELLO IRRIGATION DISTRICT	-251.00	
TOTAL		0.00
PREEM, JOHN	0.00	
TOTAL		0.00
PRESLEY DEVELOPMENT CO		
SUCCESSOR TO DE BIE, HENRY JR, AND JESSIE	14.00	
SUCCESSOR TO DE HOOG, MARTIN AND ADRIANA	10.00	
SUCCESSOR TO FERREIRA, MARY A	1.00	
SUCCESSOR TO KAMSTRA, WILLIAM AND BERTHA	28.00	
SUCCESSOR TO OOSTEN, MARINUS AND ANTHONIA	13.00	
SUCCESSOR TO ZANDVLIET, ANNA A	6.00	
SUCCESSOR IN PART TO BOERSMA, FRANK AND ANGIE	13.00	
SUCCESSOR IN PART TO FISKE, ALFRED JR AND AGGIE	2.00	
SUCCESSOR IN PART TO GIACOMI, ALFRED AND JENNIE	31.00	
DEDICATED TO CERRITOS, CITY OF	-118.00	
TOTAL		0.00
PRUDENTIAL INSURANCE CO OF AMERICA, THE		
SUCCESSOR IN PART TO STAUFFER CHEMICAL CO	76.00	
SOLD TO CERRITOS, CITY OF	-76.00	
TOTAL		0.00
PUENTE BASIN WATER AGENCY		
SUCCESSOR TO UNITED STATES GYPSUM COMPANY (5-7-2012)	365.00	
SUCCESSOR TO AQUA CAPITAL MANAGEMENT L.P. (07/01/16)	600.00	
TOTAL		965.00
PYLMAN, RALPH AND IDA	10.00	
SOLD TO POHATAN CORP	-10.00	
TOTAL		0.00
QUALITY MEAT PACKING CO	30.00	
SOLD TO KAL KAN FOODS, INC	-30.00	
TOTAL		0.00
R & C DEVELOPERS		
SUCCESSOR TO COLWELL CO, THE	17.00	
DEDICATED TO CERRITOS, CITY OF	-17.00	
TOTAL		0.00
RAH ASSOCIATES		

SUCCESSOR TO ROYDEN, HERBERT N 25.00
SOLD TO FRAMPTON, WILLIAM H -25.00
TOTAL 0.00
RALPHS GROCERY CO 0.00
TOTAL 0.00 0.00
RAMSEY, ARTHUR D AND JAMES A 4.00
SOLD TO FIRST CHRISTIAN CHURCH OF CERRITOS VIA HAL REES -4.00
TOTAL 0.00
RANCHO SANTA GERTRUDES MUTUAL WATER CO
(FORMERLY KNOWN AS RANCHO SANTA GERTRUDES MUTUAL WATER SYSTEM)
TRANSFERRED FROM RANCHO SANTA GERTURDES MUTUAL WATER SYSTEM 38.00
SOLD TO DOWNEY, CITY OF -38.00
TOTAL 0.00
RANCHO SANTA GERTRUDES MUTUAL WATER SYSTEM 38.00
(NOW KNOWN AS RANCHO SANTA GERTRUDES MUTUAL WATER CO)
TRANSFERRED TO RANCHO SANTA GERTRUDES MUTUAL WATER CO -38.00
TOTAL 0.00
RANDALL, B WILLIAM AND YVONNE E
SUCCESSOR IN PART TO ZYLSTRA, JOHN AND LEONARD J 8.00
SOLD TO CERRITOS-PACIFIC DEVELOPMENT CO -8.00
TOTAL 0.00
RANDALL, VILLIS
SUCCESSOR TO BERTHA BUILDING CO 4.00
TRANSFERRED TO RANDALL, VILLIS FAMILY TRUST, WITH VILLIS RANDALL AS SETTLOR/TRUSTEE -4.00
TOTAL 0.00
RANDALL, VILLIS FAMILY TRUST, WITH VILLIS RANDALL AS SETTLOR/TRUSTEE
TRANSFERRED FROM RANDALL, VILLIS 4.00
TRANSFERRED TO RANDALL, VILLIS FAMILY TRUST, WITH LINDA RANDALL MEIER AND BRENDA RANDALL FREIBERG AS CO-TRUSTEES -4.00
TOTAL 0.00
RANDALL, VILLIS FAMILY TRUST, WITH LINDA RANDALL MEIER AND BRENDA RANDALL FREIBERG AS CO-TRUSTEES
TRANSFERRED FROM RANDALL, VILLIS FAMILY TRUST, WITH VILLIS RANDALL AS SETTLOR/TRUSTEE 4.00
SOLD TO ECOGAS INC. (7/1/17) -4.00
TOTAL 0.00
RANGERS DIE CASTING CO
SUCCESSOR TO BOER, ADRIAN AND JULIA 9.00
DEDICATED TO CERRITOS, CITY OF -9.00
TOTAL 0.00
RAVERA, MARY 31.00
(ORANGE COUNTY NURSERY, INC, TENANT)
SOLD IN PART TO LIBERTY VEGETABLE OIL CO -12.00
SOLD IN PART TO NEW ENGLAND LIFE INSURANCE CO -19.00
TOTAL 0.00
RAVERA, ZELMA 2.00
SOLD TO MARRIOTT CORP -2.00
TOTAL 0.00
RAWLINS INVESTMENT CORP 53.00
(ROCKVIEW MILK FARMS, INC, TENANT)
SOLD TO ROCKVIEW DAIRIES, INC -53.00
TOTAL 0.00
REDEVELOPMENT AGENCY OF THE CITY OF SANTA FE SPRINGS
SUCCESSOR TO SHRINERS HOSPITALS FOR CRIPPLED CHILDREN AND THE LOS ANGELES SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS 6.00
SUCCESSOR TO SIEMON, JAMES E 12.00
SOLD IN PART TO SANTA FE SPRINGS, CITY OF -6.00
SOLD IN PART TO SANTA FE SPRINGS, CITY OF -12.00
TOTAL 0.00
REED, DAVID M
(SEE LISTING UNDER MUELLER, JULES A AND DAVID M REED)
REES, HAL 0.00
TOTAL 0.00
REEVES TRACT WATER CO 29.00
SOLD TO COUNTY WATER CO -29.00
TOTAL 0.00
REINALDA, CLARENCE 0.00
TOTAL 0.00
RELIANCE DAIRY FARMS 98.00
SOLD IN PART TO LIBERTY VEGETABLE OIL CO -11.00
SOLD IN PART TO MAYWOOD MUTUAL WATER CO NO 3 -17.00
SOLD IN PART TO ROCKVIEW DAIRIES, INC -70.00
TOTAL 0.00
RELLUF REALTY, INC
SUCCESSOR TO SOUTHERN PACIFIC TRANSPORTATION CO 12.00
SOLD TO SIMON, NORTON INC-MUSEUM OF ART -12.00
TOTAL 0.00
RESEARCH BUILDING CORP 9.00
(DR RUSSELL B CLARK, TENANT)
SOLD TO CLARK, RUSSELL B -9.00
TOTAL 0.00
RICHFIELD OIL CORP 57.00
(NOW KNOWN AS ATLANTIC RICHFIELD CO)
TRANSFERRED TO ATLANTIC RICHFIELD CO -57.00
TOTAL 0.00
RICHLAND FARM WATER CO 173.00
(NOW KNOWN AS RICHLAND FARMS MUTUAL WATER CO)
TRANSFERRED TO RICHLAND FARMS MUTUAL WATER CO -173.00
TOTAL 0.00
RICHLAND FARMS MUTUAL WATER CO
(FORMERLY KNOWN AS RICHLAND FARM WATER CO)
TRANSFERRED FROM RICHLAND FARM WATER CO 173.00
SOLD TO COMPTON, CITY OF -173.00
TOTAL 0.00
RIETKERK, GEORGE AND CORNELIA 6.00
SOLD TO HARADA BROTHERS -6.00
TOTAL 0.00
RIO HONDO COUNTRY CLUB
(SEE LISTING UNDER STAMPS, JAMES L, ETC)
RIOS, ERASMO
(SEE LISTING UNDER SALCIDO, ESTHER AND JESUS RIOS)
RIOS, JESUS
(SEE LISTING UNDER SALCIDO, ESTHER AND JESUS RIOS)
RIOS, REBECCA AND JESUS RIOS AND ERASMO RIOS
(FORMERLY KNOWN AS SALCIDO, ESTHER AND JESUS RIOS (ERASMO RIOS, TENANT))
TRANSFERRED FROM SALCIDO, ESTHER AND JESUS RIOS (ERASMO RIOS, TENANT) 3.00
SOLD TO OLTMANS CONSTRUCTION CO -3.00
TOTAL 0.00
RIPHAGEN, VERNON E AND HELEN R
SUCCESSOR IN PART TO ALBERS, J N AND NELLIE 2.00
SOLD TO B B, LTD -2.00
TOTAL 0.00
RIPPY, FRANCINE
SUCCESSOR IN PART TO HATHAWAY FAMILY QTIP TRUST 1.85
SUCCESSOR IN PART TO HATHAWAY FAMILY SURVIVOR'S TRUST 2.22
TOTAL 4.07
ROBERTSON, BOBBY RAY, JR
(SEE LISTING UNDER TUCKER, WILLIAM M AND/OR BOBBY RAY ROBERTSON, JR)
ROCHA, FRANK J, JR AND ELSIE M 10.00
SOLD TO NEWPORT SHORES BUILDERS -10.00
TOTAL 0.00
ROCKVIEW DAIRIES, INC
SUCCESSOR TO DE GROOT, PETE 12.00
SUCCESSOR TO RAWLINS INVESTMENT CORP 53.00
SUCCESSOR TO STRUIKMAN, LOUIS AND ALICE, ETC 46.00
SUCCESSOR TO ZUIDERVAART, DICK AND JANNA 1.00
SUCCESSOR IN PART TO CLASSIC DEVELOPMENT CO 8.00
SUCCESSOR IN PART TO RELIANCE DAIRY FARMS 70.00
SOLD IN PART TO DOWNEY, CITY OF -90.00
SOLD IN PART TO PICO RIVERA, CITY OF -25.00
SUCCESSOR TO VALLEY CHRISTIAN SCHOOLS 26.00
TOTAL 101.00
ROCKVIEW MILK FARMS, INC
(SEE LISTING UNDER RAWLINS INVESTMENT CORP)
ROCKY MOUNTAIN INDUSTRIES, INC 0.00
(DOES NOT OWN WATER RIGHT, EXCEPT TO THE EXTENT THAT IT MAY CONTRACT TO LEASE OR PURCHASE SUCH RIGHT FROM A PARTY TO THE JUDGMENT)
RODRIGUES, JOHN, EMILY S RODRIGUES, AND JOHN RODRIGUES, JR (SEE ALSO BELOW) 4.00
SOLD TO SANTA FE SPRINGS, CITY OF -4.00
TOTAL 0.00
RODRIGUES, JOHN AND JOHN RODRIGUES, JR 1.00
SOLD TO COUNTY WATER CO -1.00
TOTAL 0.00
ROETHLISBERGER, FRIEDA
(SEE LISTING UNDER NAME OF LUOND, JOE)
ROGERS, PATRICIA L DAVIS, AKA PATRICIA L DAVIS 2.00
SOLD TO EAGLETON, GAIL H -2.00
TOTAL 0.00
ROMAN CATHOLIC ARCHBISHOP OF LOS ANGELES, THE 341.00
COMBINED WITH AND TRANSFERRED FROM THE ARCHDIOCESE OF LOS ANGELES EDUCATION AND WELFARE CORP 6.00
TOTAL 347.00
ROMBERG, GLADYS MARIE
(SEE LISTING UNDER BOOTSMA, BERNARD WILLIAM, CARRIE AGNES VAN DAM AND GLADYS MARIE ROMBERG)
ROMBOUT, ALOIS M 0.00
TOTAL 0.00
ROMOFF, LOUIS
(SEE LISTING UNDER PERRICONE, SAM)
ROSALES, ELVIRA C 3.00
TOTAL 3.00
ROSING, LENORE AND PHYLLIS SCHWARTZ, SUCCESSOR

TRUSTEES OF THE MAURICE I SESSLER TRUST		
TRANSFERRED FROM SESSLER, CELIA, TRUSTEE OF THE MAURICE I SESSLER TRUST	6.00	
TRANSFERRED TO ROSING, LENORE AND PHYLLIS SCHWARTZ, TENANTS IN COMMON	-6.00	
TOTAL		0.00
ROSING, LENORE AND PHYLLIS SCHWARTZ, TENANTS IN COMMON		
TRANSFERRED FROM ROSING, LENORE AND PHYLLIS SCHWARTZ, SUCCESSOR TRUSTESS OF THE MAURICE I SESSLER TRUST	6.00	
TRANSFERRED TO ROSING, LENORE, TRUSTEE UNDER THE LENORE ROSING INTER VIVOS TRUST AGREEMENT AND PHYLLIS SCHWARTZ	-6.00	
TOTAL		0.00
ROSING, LENORE, TRUSTEE UNDER THE LENORE ROSING INTER VIVOS TRUST AGREEMENT AND PHYLLIS SCHWARTZ		
TRANSFERRED FROM ROSING, LENORE AND PHYLLIS SCHWARTZ, TENANTS IN COMMON	6.00	
SOLD TO HOKE, BARBARA AND ROSING, NANCY (6-17-15)	-3.00	
SOLD TO MARGULIES, KATHRYN AND SCHWARTZ, JON (6-17-15)	-3.00	
TOTAL		0.00
ROSING, NANCY		
SUCCESSOR TO HOKE, BARBARA AND ROSING, NANCY	1.50	
TOTAL		1.50
ROSS, FRANK J	2.00	
SOLD TO VAN DIEST WATER CO	-2.00	
TOTAL		0.00
ROTH, ERNEST D AND EVA		
(SEE LISTING UNDER FLESCH, ELIZABETH)		
ROUKEMA, ED	0.00	
TOTAL		0.00
ROWLAND WATER DISTRICT		
SUCCESSOR TO CMPC TRANSITION CORPORATION (10-26-2010)	1.00	
(NOW KNOWN AS CMPC TRANSITION LLC)		
TOTAL		1.00
ROYDEN, HERBERT N	25.00	
SOLD TO RAH ASSOCIATES	-25.00	
TOTAL		0.00
RUCHTI BROTHERS	25.00	
SOLD TO WESTERN WATER CO	-25.00	
TOTAL		0.00
RUGGIERI, FRANK AND VADA	1.00	
(SEE ADDITIONAL LISTING BELOW)		
SOLD TO SOUTHERN CALIFORNIA HOSPITAL, INC	-1.00	
TOTAL		0.00
RUGGIERI, FRANK & VADA AND SELDEEN, DAVID & FAY (RAY MITCHELL, TENANT)	18.00	
DEDICATED TO CERRITOS, CITY OF	-18.00	
TOTAL		0.00
RYAN, THOMAS S AND DOROTHY J	15.00	
SOLD TO CERRITOS, CITY OF	-15.00	
TOTAL		0.00
RYDER, BAYARD		
SUCCESSOR TO ISHII, JUGORA AND MUMENO	8.00	
SOLD TO NORWALK, CITY OF	-8.00	
TOTAL		0.00
RYLAARSDAM, SIMON AND MARY JANE	1.00	
CONDEMNED AND TRANSFERRED TO A B C UNIFIED SCHOOL DISTRICT	-1.00	
TOTAL		0.00
RYPKEMA, SAM AND TENA	6.00	
SOLD TO CLARK, RUSSELL B	-6.00	
TOTAL		0.00
S & M MELLANO 1036 PACIFIC LLC	4.33	
SUCCESSOR TO MELLANO, G. et al. (5/24/18)		
SOLD TO WALNUT PARK MUTUAL WATER COMPANY (5/24/18)	-4.33	
TOTAL		0.00
SAFEWAY STORES, INC		
SUCCESSOR TO MESA-BERGER CO	14.00	
DEDICATED TO CERRITOS, CITY OF	-14.00	
TOTAL		0.00
ST JOHN BOSCO SCHOOL	42.00	
TOTAL		42.00
SAITO, JAMES H AND YOSHINO	2.00	
SOLD TO MAPE INDUSTRIES	-2.00	
TOTAL		0.00
SALCIDO, ESTHER AND JESUS RIOS	3.00	
(ERASMO RIOS, TENANT)		
(NOW KNOWN AS RIOS, REBECCA AND JESUS RIOS AND ERASMO RIOS)		
TRANSFERRED TO RIOS, REBECCA AND JESUS RIOS AND ERASMO RIOS	-3.00	
TOTAL		0.00
SAMPSON, WILLIAM C AND MILDRED S		
SUCCESSOR TO BOTHOF, PETER	5.00	
SOLD TO HORSESHOE CATTLE CO VIA HALOPOFF	-5.00	
TOTAL		0.00
SAN ANTONIO DAIRY FEEDS CO		
SUCCESSOR TO PINTO, FRED AND MARY	4.00	
SOLD TO CERRITOS, CITY OF	-4.00	
TOTAL		0.00
SAN GABRIEL VALLEY WATER CO	5,462.00	
SUCCESSOR TO BEVERLY PARK PLACE	,17.00	
SUCCESSOR TO (KING) MRS PAUL Y HOMER	14.00	
SUCCESSOR TO MUTUAL WATER OWNERS ASSOCIATION OF LOS NIETOS	39.00	
SUCCESSOR TO WEST GATEWAY MUTUAL WATER CO	84.00	
SOLD IN PART TO PICO RIVERA, CITY OF	-3,000.00	
SOLD IN PART TO CENTRAL BASIN MUNICIPAL WATER DISTRICT	-50.65	
TOTAL		2,565.35
SANTANA, JOE AND PALMIRA	8.00	
SOLD TO CERRITOS JUNIOR COLLEGE DISTRICT	-8.00	
TOTAL		0.00
SANTA FE LAND IMPROVEMENT CO		
(FORMERLY KNOWN AS CENTRAL MANUFACTURING DISTRICT, INC)		
TRANSFERRED FROM CENTRAL MANUFACTURING DISTRICT, INC	660.00	
DEDICATED TO VERNON, CITY OF	-660.00	
TOTAL		0.00
SANTA FE SPRINGS, CITY OF	404.00	
SUCCESSOR TO BARCELOS, JOHN AND GUILHERMINA	13.00	
SUCCESSOR TO CARMENITA COMMERCE CENTER	54.00	
SUCCESSOR TO CHASE MANHATTAN BANK	1.00	
SUCCESSOR TO CONTEAS, NICHOLAS C AND P BASIL LAMBROS	1.00	
SUCCESSOR TO COPP EQUIPMENT CO, INC AND HUMPHRIES INVESTMENT, INC	6.00	
SUCCESSOR TO COWLITZ AMUSEMENTS, INC	4.00	
SUCCESSOR TO DUNN INDUSTRIAL PROPERTIES CORP	19.00	
SUCCESSOR TO EAGLETON, MARGARET S	56.00	
SUCCESSOR TO FROST, JESS L AND DOLORES	4.00	
SUCCESSOR TO HUNSAKER, RICHARD C	2.00	
SUCCESSOR TO JENKINS REALTY MUTUAL WATER CO	8.00	
SUCCESSOR TO KALICO, INC	4.00	
SUCCESSOR TO LAKEWOOD PIPE CO	10.00	
SUCCESSOR TO LAUTRUP, NORMAN AND IRMA	24.00	
SUCCESSOR TO LEE DEANE PRODUCTS INC	1.00	
SUCCESSOR TO LIBERTY VEGETABLE OIL CO	34.00	
SUCCESSOR TO LUCAS, JOE	7.00	
SUCCESSOR TO MARRIOTT CORP	2.00	
SUCCESSOR TO NEW LIFE COMMUNITY CHURCH	10.00	
SUCCESSOR TO OWL CONSTRUCTORS	16.00	
SUCCESSOR TO RODRIGUES, JOHN, EMILY S RODRIGUES, AND JOHN RODRIGUES, JR	4.00	
SUCCESSOR TO SMITH, PECKHAM AND PECKHAM	1.00	
SUCCESSOR TO SOUTHERN CALIFORNIA HOSPITAL INC	1.00	
SUCCESSOR TO SUNSET CEMETERY ASSOC	21.00	
SUCCESSOR TO UNITED STATES STEEL CORP	141.00	
SUCCESSOR TO VANDERHAM, JOHN AND NELL M	16.00	
SUCCESSOR IN PART TO BARTSMA, SAM AND BIRDIE	20.00	
SUCCESSOR IN PART TO CLARK, RUSSELL B	9.00	
SUCCESSOR IN PART TO COLLINSWORTH, J E	3.00	
SUCCESSOR IN PART TO DUNN, L AND M	11.00	
SUCCESSOR IN PART TO FLINTKOTE CO, THE	200.00	
SUCCESSOR IN PART TO HATHAWAY CO	8.00	
SUCCESSOR IN PART TO HATHAWAY RANCH	11.10	
SUCCESSOR IN PART TO HATHAWAY RANCH	16.68	
SUCCESSOR IN PART TO HOUSEMAN, THEODORE R AND LEONA, M	6.00	
SUCCESSOR IN PART TO MUSSACHIA, CARL A, FRANCIS J MUSSACHIA, ANTHONY G MUSSACHIA JR, ANNA MARIE CAOLE AS TO UNDIVIDED ONE-FOURTH INTEREST	6.00	
SUCCESSOR IN PART TO NATIONWIDE PROPERTY DEVELOPMENT CO, INC	142.00	
SUCCESSOR IN PART TO OFFINGA, WILLIAM AND SON, INCLUDING SIDNEY OFFINGA	14.00	
SUCCESSOR IN PART TO PINHEIRO, A C AND MARY M	34.00	
SUCCESSOR IN PART TO PINHEIRO, A C AND MARY M	40.00	
SUCCESSOR IN PART TO POWERINE OIL CO	700.00	
SUCCESSOR IN PART TO REDEVELOPMENT AGENCY OF THE CITY OF SANTA FE SPRINGS	6.00	
SUCCESSOR IN PART TO REDEVELOPMENT AGENCY OF THE CITY OF SANTA FE SPRINGS	12.00	
SUCCESSOR IN PART TO SOUTHERN PACIFIC INDUSTRIAL DEV CO	38.00	
SUCCESSOR IN PART TO SOUTHERN PACIFIC INDUSTRIAL DEV CO	74.00	
SUCCESSOR IN PART TO SUBURBAN WATER SYSTEMS	2,404.00	
SOLD IN PART TO NORWALK, CITY OF	-179.00	
SOLD IN PART TO SUBURBAN WATER SYSTEMS	-404.00	
TOTAL		4,035.78
SANTA FE SPRINGS PROPERTIES		
SUCCESSOR TO GABBY LOUISE, INC	46.00	
SOLD TO MAYWOOD MUTUAL WATER CO NO 3	-46.00	
TOTAL		0.00
SANWA BANK CALIFORNIA, FORMERLY LLOYDS BANK CALIFORNIA, FORMERLY FIRST WESTERN BANK AND		

TRUST CO, AS TRUSTEE PURSUANT TO LAST WILL AND TESTAMENT OF TONY CORDEIRO, DECEASED		
SUCCESSOR IN PART TO CORDEIRO, MARY AND SANWA BANK CALIFORNIA, FORMERLY LLOYDS BANK CALIFORNIA, FORMERLY FIRST WESTERN BANK AND TRUST CO, AS TRUSTEE PURSUANT TO LAST WILL AND TESTAMENT OF TONY CORDEIRO, DECEASED (NOW KNOWN AS UNITED CALIFORNIA BANK, FORMERLY SANWA BANK CALIFORNIA, FORMERLY LLOYDS BANK CALIFORNIA, FORMERLY FIRST WESTERN BANK AND TRUST CO, AS TRUSTEE PURSUANT TO LAST WILL AND TESTAMENT OF TONY CORDEIRO, DECEASED)	18.50	
TRANSFERRED TO UNITED CALIFORNIA BANK, FORMERLY SANWA BANK CALIFORNIA, FORMERLY LLOYDS BANK CALIFORNIA, FORMERLY FIRST WESTERN BANK AND TRUST CO, AS TRUSTEE PURSUANT TO LAST WILL AND TESTAMENT OF TONY CORDEIRO, DECEASED	-18.50	
TOTAL		0.00
SASAKI BROTHERS RANCH, INC	26.00	
SOLD TO SCHOLLE CONTAINER CORP	-26.00	
TOTAL		0.00
SATIVA-LOS ANGELES COUNTY WATER DISTRICT	474.00	
TOTAL	474.00	
SAVAGE, WILLIAM		
SUCCESSOR TO H R M LAND COMPANY	3.00	
SOLD TO CERRITOS, CITY OF	-3.00	
TOTAL		0.00
SCANTLEBURY, ROBERT P		
SUCCESSOR TO PADDISON, EDWARD G AND GRACE M	4.00	
TOTAL		4.00
SCHILDER, BEN JR, AND ANNA	22.00	
SOLD TO MAYWOOD MUTUAL WATER CO NO 3	-22.00	
TOTAL		0.00
SCHMID, CARL AND OLGA	14.00	
SOLD TO BENFID REALTY CO	-14.00	
TOTAL		0.00
SCHOLLE CONTAINER CORP		
SUCCESSOR TO SASAKI BROTHERS, INC (NOW KNOWN AS SCHOLLE CORP)	26.00	
TRANSFERRED TO SCHOLLE CORP	-26.00	
TOTAL		0.00
SCHOLLE CORP		
(FORMERLY KNOWN AS SCHOLLE CONTAINER CORP)		
TRANSFERRED FROM SCHOLLE CONTAINER CORP	26.00	
SOLD TO WESTERN WATER CO	-26.00	
TOTAL		0.00
SCHOUTEN, HANS AND BARBARA		
SUCCESSOR IN PART TO VAN RUITEN, THOMAS G AND INGRID K	2.00	
SOLD TO DOLAN, JAMES E AND PATRICIA ANN AND THOMAS P	-2.00	
TOTAL		0.00
SCHUSTER, DICK J		
SUCCESSOR TO BROOKS, MILO B AND EVA	3.00	
SOLD TO HORSESHOE CATTLE CO	-3.00	
TOTAL		0.00
SCHUUR, A (MRS)	0.00	
TOTAL		0.00
SCHUURMAN, JOHN AND ISABEL	12.00	
(JAMES SIEPERDA, TENANT)		
SOLD TO MAYFAIR SALES CO, INC	-12.00	
TOTAL		0.00
SCHWARTZ, PHYLLIS		
(SEE LISTING UNDER ROSING, LENORE & PHYLLIS SCHWARTZ)		
SCHWORER, WILLIAM J, JR		
SUCCESSOR TO SUTTON, E A AND RAMONA	31.00	
SOLD TO GRANT, ROBERT H, DEVELOPER, INC	-31.00	
TOTAL		0.00
S D C, INC		
SUCCESSOR TO VANDER WALL, HARRY J AND MARIAN E	10.00	
DEDICATED TO CERRITOS, CITY OF	-10.00	
TOTAL		0.00
SELDEEN, DAVID AND FAY		
(SEE LISTING UNDER RUGGIERI, FRANK & VADA AND DAVID & FAY SELDEEN)		
SEPTEMBER PROPERTIES, LLC		
SUCCESSOR TO BOWEN, JOHN H., TRUSTEE OF THE JOHN H. BOWEN TRUST	22.00	
TOTAL		22.00
SESSLER, CELIA, TRUSTEE OF THE MAURICE I SESSLER TRUST		
(FORMERLY KNOWN AS SESSLER, MAURICE I)		
TRANSFERRED FROM SESSLER, MAURICE I	6.00	
TRANSFERRED TO LENORE ROSING AND PHYLLIS SCHWARTZ, SUCCESSOR TRUSTEES OF THE MAURICE I SESSLER TRUST	-6.00	
TOTAL		0.00
SESSLER, MAURICE I	6.00	
(NOW KNOWN AS SESSLER, CELIA, TRUSTEE OF THE MAURICE I SESSLER TRUST		
TRANSFERRED TO SESSLER, CELIA, TRUSTEE OF THE MAURICE I SESSLER TRUST	-6.00	
TOTAL		0.00
SEVEN-UP/RC BOTTLING CO OF SOUTHERN CALIFORNIA, INC		
(NOW KNOWN AS AMERICAN BOTTLING COMPANY, SUCCESSOR BY MERGER WITH DR. PEPPER BOTTLING COMPANY OF TEXAS)		
SUCCESSOR TO ASSOCIATED BEVERAGE CO, INC	69.00	
SOLD TO AQUA CAPITAL MANAGEMENT LP (10-19-2010)	-69.00	
TOTAL		0.00
SHAFFER, CHRIS AND CELIA I	6.00	
SOLD TO CERRITOS, CITY OF	-6.00	
TOTAL		0.00
SHAPELL, NATHAN		
SUCCESSOR TO SYBRANDY, ROY AND ANNE	23.00	
SOLD TO DERBY CORP, ET AL	-23.00	
TOTAL		0.00
SHATTUCK, J R AND DEBRA		
SUCCESSOR TO BORDATO, MICHEL AND ANNA M	10.00	
DEDICATED TO CERRITOS, CITY OF	-10.00	
TOTAL		0.00
SHAYMAN AND WHARRAM, A PARTNERSHIP, CONSISTING OF JOHN W SHAYMAN AND FRANCIS O WHARRAM	2.00	
SOLD TO SHAYMAN, JOHN W	-2.00	
TOTAL		0.00
SHAYMAN, JOHN W		
SUCCESSOR TO SHAYMAN AND WHARRAM	2.00	
SOLD TO 11409 CARSON LTD (C/O SPONGBERG, KIRKLAND AND BLACK)	-2.00	
TOTAL		0.00
SHELL OIL CO		
(SEE LISTING UNDER SLUSHER, MARGARET F)		
SUCCESSOR TO SHIBA, TADAO AND HARUME SHIBA AND SUSUMU SHIBA AND MITSUKO SHIBA	6.00	
SOLD TO EQUILON ENTERPRISES, LLC	-6.00	
TOTAL		0.00
SHELTER SUPERIOR DAIRY		
(SEE LISTING UNDER NELSON, OTELIA AND ROBERT)		
SHENG, PING LING		
SUCCESSOR IN PART TO WELLS, RICHARD A, ET AL	1.00	
SOLD TO CERRITOS, CITY OF	-1.00	
TOTAL		0.00
SHIBA, TADAO AND HARUME SHIBA AND SUSUMU SHIBA AND MITSUKO SHIBA	6.00	
SOLD TO SHELL OIL COMPANY	-6.00	
TOTAL		0.00
SHIOZAKI, YAHIKO & KIYOKO AND KEN & GRACE SHIOZAKI	5.00	
SOLD TO CERRITOS, CITY OF	-5.00	
TOTAL		0.00
SHOEMAKER PARTNERSHIP		
SUCCESSOR TO GREEN HILLS DEVELOPMENT CO	8.00	
SOLD TO LAKEWOOD, CITY OF	-8.00	
TOTAL		0.00
SHORE-PLOTKIN ENTERPRISES, INC	0.00	
(SHORE-CALNEVAR, INC-TENANT)		
TOTAL		0.00
SHRINERS HOSPITALS FOR CRIPPLED CHILDREN AND THE LOS ANGELES SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS		
SUCCESSOR TO SLUSHER, MARGARET F	6.00	
SOLD TO REDEVELOPMENT AGENCY OF THE CITY OF SANTA FE SPRINGS	-6.00	
TOTAL		0.00
SIEMON, J E	12.00	
SOLD TO REDEVELOPMENT AGENCY OF THE CITY OF SANTA FE SPRINGS	-12.00	
TOTAL		0.00
SIEPERDA, JAMES		
(SEE LISTING UNDER SCHUURMAN, JOHN AND ISABEL)		
SIERRA RESTAURANT CORP	0.00	
TOTAL		0.00
SIEVERS, ROBERT L AND BETTY		
SUCCESSOR TO FELSENTHAL, JULIUS AND MARGA	1.00	
DEDICATED TO CERRITOS, CITY OF	-1.00	
TOTAL		0.00
SIGNAL HILL, CITY OF	1,340.00	
SUCCESSOR TO ATCHISON, TOPEKA AND SANTA FE RAILWAY CO, THE	99.00	
SUCCESSOR TO COAST WATER CO	470.00	
SUCCESSOR TO PERK/LEWIS FOODS-DIV C H B FOODS	113.00	
TOTAL		2,022.00
SIMAS, FRANK AND MABEL	9.00	
(FRANK PIRES, TENANT)		
SOLD TO LINWOOD HOMES, INC	-9.00	
TOTAL		0.00
SIMMONS, ALICE L		
(ALSO KNOWN AS SIMMONS, ALICE LORRAINE)		
(SEE LISTING UNDER SIMMONS SURVIVOR'S TRUST		
SIMMONS, BENNETT E & ALICE LORRAINE AND GEORGE K & DORIS JUNE SIMMONS	33.00	
(BELL TRAILER CITY, TENANT)		
SOLD TO SIMMONS, BENNETT, E AND ALICE LORRAINE	-33.00	
TOTAL		0.00
SIMMONS, BENNETT E AND ALICE LORRAINE		
SUCCESSOR TO SIMMONS, BENNETT E & ALICE	33.00	

LORRAINE AND GEORGE K & DORIS JUNE SIMMONS (NOW KNOWN AS SIMMONS SURVIVOR'S TRUST WITH ALICE L SIMMONS AS TRUSTEE)		
TRANSFERRED TO SIMMONS SURVIVOR'S TRUST WITH ALICE L SIMMONS AS TRUSTEE	-33.00	
TOTAL		0.00
SIMMONS REVOCABLE TRUST WITH ALICE L SIMMONS AS TRUSTEE (SEE LISTING UNDER SIMMONS SURVIVOR'S TRUST)		
SIMMONS SURVIVOR'S TRUST WITH ALICE L SIMMONS AS TRUSTEE (FORMERLY KNOWN AS SIMMONS BENNETTE E AND ALICE LORRAINE)		
TRANSFERRED FROM SIMMONS, BENNETT E AND ALICE LORRAINE	33.00	
TOTAL		33.00
SIMON, NORTON INC-MUSEUM OF ART		
SUCCESSOR TO RELLUF REALTY, INC	12.00	
SOLD TO PATRICIAN ASSOCIATES, INC AND MAJESTIC REALTY CO	-12.00	
TOTAL		0.00
SINCLAIR PAINT CO		
SUCCESSOR TO PHELPS DODGE BRASS CO	312.00	
SOLD TO COMMERCE HOTEL, LTD	-312.00	
TOTAL		0.00
SLUSHER, MARGARET F (SHELL OIL CO, TENANT)	6.00	
SOLD TO SHRINERS HOSPITALS FOR CRIPPLED CHILDREN AND THE LOS ANGELES SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS	-6.00	
TOTAL		0.00
SMITH, CLIFFORD C		
SUCCESSOR TO HORSESHOE CATTLE CO (NOW KNOWN AS SMITH, MARGARET M)	1.00	
TRANSFERRED TO SMITH, MARGARET M	-1.00	
TOTAL		0.00
SMITH, LESTER W AND DONALD E (LESTER W SMITH DAIRY, TENANT)	16.00	
SOLD TO ARDEN-MAYFAIR, INC	-16.00	
TOTAL		0.00
SMITH, MARGARET M (FORMERLY KNOWN AS SMITH, CLIFFORD C)		
TRANSFERRED FROM SMITH, CLIFFORD C	1.00	
DISTRIBUTED FROM BONDED CATTLE CO	23.00	
SOLD TO SMITH, REX M	-24.00	
TOTAL		0.00
SMITH, PECKHAM AND PECKHAM		
SUCCESSOR TO AIRFLOOR CO OF CALIFORNIA	1.00	
SOLD TO SANTA FE SPRINGS, CITY OF	-1.00	
TOTAL		0.00
SMITH, RALPH E, ET AL		
SUCCESSOR TO MODERN IMPERIAL CO	57.00	
SUCCESSOR TO MOSS, D S & LILLIAN AND JEROME D & JOYCE MACK	4.00	
SOLD TO HORSESHOE CATTLE CO	-4.00	
SOLD TO POWERINE OIL CO	-56.00	
SOLD TO SOMERSET MUTUAL WATER CO	-1.00	
TOTAL		0.00
SMITH, REX M		
SUCCESSOR TO SMITH, MARGARET M	24.00	
SOLD TO AQUA CAPITAL MANAGEMENT LP	-24.00	
TOTAL		0.00
SMITH, WIRT	11.00	
SOLD TO DUNN, L AND M	-11.00	
TOTAL		0.00
SMOORENBURG, WILLIAM, AND NICK J LOOGMAN (SMOOREENBERG AND LOOGMAN, A PARTNERSHIP OF WILLIAM SMOORENBURG AND NICK J. LOOGMAN, 0PERATING WELL FACILITY)	17.00	
SOLD TO BENFID REALTY CO	-17.00	
TOTAL		0.00
SMURFIT-STONE CONTAINER ENTERPRISES, INC (NAME CHANGED FROM JEFFERSON SMURFIT CORPORATION)		
TRANSFERRED FROM JEFFERSON SMURFIT CORPORATION	1,058.00	
SOLD IN PART TO AQUA CAPITAL MANAGEMENT LP	-1,057.00	
SOLD TO AQUA CAPITAL MANAGEMENT LP	-1.00	
TOTAL		0.00
SNOW, JAMES M AND ESSIE M		
SUCCESSOR IN PART TO PINHEIRO, A C AND MARY M	24.00	
DEDICATED TO CERRITOS, CITY OF	-24.00	
TOTAL		0.00
SNOZZI, LEO AND SYLVIA	42.00	
SOLD TO KLUG, J W, DEVELOPMENT CO, INC	-42.00	
TOTAL		0.00
SOCONY MOBIL OIL CO, INC (NOW KNOWN AS MOBIL OIL CORP)	138.00	
TRANSFERRED TO MOBIL OIL CORP	-138.00	
TOTAL		0.00
SOMERSET LAND CO		
SUCCESSOR TO DE JONG, CORNELIUS AND GRACE	10.00	
SUCCESSOR TO WESTERN INVESTMENT LTD CO	10.00	
DEDICATED TO CERRITOS, CITY OF	-20.00	
TOTAL		0.00
SOMERSET MUTUAL WATER CO	2,195.00	
SUCCESSOR TO BEEGHLY, P T	1.00	
SUCCESSOR TO CITRUS GROVE HEIGHTS WATER CO	222.00	
SUCCESSOR TO D-H INVESTORS	25.88	
SUCCESSOR TO DYT, COR AND ANDY	5.00	
SUCCESSOR TO SMITH, RALPH E, ET AL	1.00	
SUCCESSOR TO VANDENBERG, AUGUST, ET AL	5.00	
SOLD TO BELLFLOWER WATER CO	-2,454.88	
TOTAL		0.00
SOUTH GATE, CITY OF	7,954.00	
SUCCESSOR TO HON INDUSTRIES	1,229.00	
SUCCESSOR IN PART TO PARK WATER CO	2,000.00	
TOTAL		11,183.00
SOUTH MONTEBELLO IRRIGATION DISTRICT	990.00	
SUCCESSOR TO WESLOCK CO	27.00	
SUCCESSOR IN PART TO POWERINE OIL CO	251.00	
TOTAL		1,268.00
SOUTHERN CALIFORNIA EDISON CO (VERNON E BACON; CHIKAMI BROS FARMING, CONSISTING OF JACK CHIKAMI AND SIGERU CHIKAMI; LOUIS F DE MARTINI; ARMAND LESCOULIE; C D WEBSTER; KENJI MURATA; GLEN F AND JEAN H SPILLER; GEORGE AND ALICE YAMAMOTO, CONDUCTING BUSINESS AS FUMI GARDEN FARMS, INC; AND SALVATORE GUTIERREZ, TENANTS AND LICENSEES)	653.00	
SUCCESSOR TO ASSOCIATED SOUTHERN INVESTMENT CO	13.00	
SUCCESSOR TO HATANAKA, MASAKAZU, ISAO, & KENICHI	4.00	
TOTAL		670.00
SOUTHERN CALIFORNIA HOSPITAL, INC		
SUCCESSOR TO RUGGIERI, FRANK AND VADA	1.00	
SOLD TO SANTA FE SPRINGS, CITY OF	-1.00	
TOTAL		0.00
SOUTHERN CALIFORNIA WATER CO	15,150.00	
SOLD IN PART TO PARK WATER CO	-72.00	
SUCCESSOR TO LOS ANGELES COUNTY WATERWORKS DISTRICT NO 1	90.00	
SUCCESSOR TO LOS ANGELES COUNTY WATERWORKS DISTRICT NO 10	674.00	
SUCCESSOR TO LOS ANGELES COUNTY WATERWORKS DISTRICT NO 16	330.00	
SUCCESSOR IN PART TO PARK WATER CO	267.20	
NAME CHANGE TO GOLDEN STATE WATER COMPANY	-16,439.20	
TOTAL		0.00
SOUTHERN PACIFIC INDUSTRIAL DEVELOPMENT CO (FORMERLY KNOWN AS SOUTHERN PACIFIC TRANS CO)		
TRANSFERRED FROM SOUTHERN PACIFIC TRANS CO	132.00	
SOLD IN PART TO CERRITOS, CITY OF	-20.00	
SOLD IN PART TO SANTA FE SPRINGS, CITY OF	-74.00	
SOLD IN PART TO SANTA FE SPRINGS, CITY OF	-38.00	
TOTAL		0.00
SOUTHERN PACIFIC TRANSPORTATION CO (FORMERLY KNOWN AS PACIFIC ELECTRIC RAILWAY CO)		
TRANSFERRED FROM PACIFIC ELECTRIC RAILWAY CO	12.00	
SUCCESSOR TO F & P CONSTRUCTION CO	17.00	
SUCCESSOR TO POSTMA, VERONICA	13.00	
SUCCESSOR TO TITLE INSURANCE AND TRUST CO	102.00	
SOLD TO RELLUF REALTY, INC (NOW KNOWN AS SOUTHERN PACIFIC INDUSTRIAL DEVELOPMENT CO)	-12.00	
TRANSFERRED TO SOUTHERN PACIFIC INDUSTRIAL DEVELOPMENT CO	-132.00	
TOTAL		0.00
SOUTHERN SERVICE CO, LTD (NOW KNOWN AS SOUTHERN SERVICE CO AND ENVIRONMENTALS, INC)	65.00	
TRANSFERRED TO SOUTHERN SERVICE CO AND ENVIRONMENTALS, INC	-65.00	
TOTAL		0.00
SOUTHERN SERVICE CO AND ENVIRONMENTALS, INC (FORMERLY KNOWN AS SOUTHERN SERVICE CO, LTD)		
TRANSFERRED FROM SOUTHERN SERVICE CO, LTD	65.00	
SOLD TO AMERICAN TEXTILE MAINTENANCE COMPANY (12/10/2009)	-65.00	
TOTAL		0.00
SOUTHFIELD, HENRIETTA	4.00	
SOLD TO VANDER DUSSEN, COR AND FIKSE, GERRIT W	-4.00	
TOTAL		0.00
SOUTHFIELD, JOHN	0.00	
TOTAL		0.00
SOUTHLAND LUTHERAN HOME		
SUCCESSOR TO TRINITY LUTHERAN CHURCH	8.00	
SOLD TO LYON, WM DEVELOPMENT CO, INC	-8.00	
TOTAL		0.00
SOUTHWEST WATER CO	2,316.00	
SUCCESSOR TO OLIVE LAWN MEMORIAL PARK, INC	11.00	
SOLD TO SUBURBAN WATER SYSTEMS	-2,327.00	
TOTAL		0.00

SOUTHWEST SUBURBAN WATER CO		
SUCCESSOR TO MURPHY RANCH MUTUAL WATER CO (NAME CHANGED FROM SUBURBAN WATER SYSTEMS)	461.00	
TRANSFERRED FROM SUBURBAN WATER SYSTEMS (NAME CHANGED AGAIN TO SUBURBAN WATER SYSTEMS)	3,260.00	
TRANSFERRED TO SUBURBAN WATER SYSTEMS	-3,721.00	
TOTAL		0.00
SOUZA, MANUEL M SR, MANUEL M SOUZA JR, FRANK M SOUZA AND LOUIE J SOUZA (SEE LISTING UNDER GONSALVES, JACK, ETC)		
PARTITIONED FROM GONSALVES, JACK, JOE LUCAS, PETE KOOPMANS, MANUEL M SOUZA SR, MANUEL M SOUZA JR, FRANK M SOUZA, LOUIE J SOUZA AND MARY A FERREIRA	16.00	
DEDICATED IN PART TO CERRITOS, CITY OF	-10.00	
SOLD IN PART TO MONTEBELLO, CITY OF	-6.00	
TOTAL		0.00
SOUZA, NELSON AND MARY	10.00	
SOLD TO GRANT, ROBERT H, DEVELOPER, INC	-10.00	
TOTAL		0.00
SPECIALTY SHOPPING CENTERS, INC		
SUCCESSOR TO LAKEWOOD PROPERTIES	43.00	
SOLD TO CENTURY CENTER MUTUAL WATER ASSOC	-43.00	
TOTAL		0.00
SPENCE, JERRY N		
SUCCESSOR TO STEWART, JAMES L AND PEGGY	1.00	
SOLD TO WESTERN WATER CO	-1.00	
TOTAL		0.00
SPILLER, GLEN F AND JEAN H	19.00	
(SEE ALSO LISTING UNDER SOUTHERN CALIFORNIA EDISON CO)		
SOLD TO FORESTA, FRANCIS A AND VALERIE MAE	-19.00	
TOTAL		0.00
SPONGBERG, KIRKLAND AND BLACK		
(SEE LISTING UNDER 11409 CARSON, LTD)		
SPRAGUE, FARAH	3.00	
SOLD TO TRACT NUMBER ONE HUNDRED AND EIGHTY WATER COMPANY	-3.00	
TOTAL		0.00
SQUIRE, RICHARD, HENRIETTA M AND ROBERT K		
SUCCESSOR TO HOP, ART SR, AND JOHANNA	4.00	
SOLD TO VAN DIEST, KATRENA AND MARGARET	-4.00	
TOTAL		0.00
STAAT, HERMAN F AND CHARLOTTE H	2.00	
SOLD TO OGDEN, CLAUDIA	-2.00	
TOTAL		0.00
STAMPS, JAMES E, FOUNDATION, INC		
ASSIGNED FROM JAMES L STAMPS AS TO AN UNDIVIDED 80% INTEREST; ADDIE L ENFIELD, AS TO AN 80% INTEREST; ADDIE L ENFIELD, AS TO AN UNDIVIDED 20% INTEREST	354.00	
ASSIGNED TO LOS ANGELES COUNTY-DOWNEY REGIONAL PUBLIC RECREATION AREA AUTHORITY	-354.00	
TOTAL		0.00
STAMPS, JAMES L, AS TO AN UNDIVIDED 80% INTEREST; ADDIE L ENFIELD, AS TO AN UNDIVIDED 20 % INTEREST (RIO HONDO COUNTRY. CLUB, TENANT)	354.00	
ASSIGNED TO STAMPS, JAMES E, FOUNDATION, INC	-354.00	
TOTAL		0.00
STANDARD BRANDS PAINT CO, INC		
SUCCESSOR TO EDWARDS, ART	1.00	
SOLD TO CERRITOS, CITY OF	-1.00	
TOTAL		0.00
STANDARD OIL CO OF CALIFORNIA	94.00	
(NAME CHANGED TO CHEVRON USA, INC)		
TRANSFERRED TO CHEVRON USA, INC	-94.00	
TOTAL		0.00
STANDLEY, J F AND MYRTLE M	1.00	
SOLD TO BECK AND THOMASON CONSTRUCTION CO	-1.00	
TOTAL		0.00
STAR DUST LANDS, INC	68.00	
DEDICATED TO CERRITOS, CITY OF	-68.00	
TOTAL		0.00
STATE OF CALIFORNIA		
(SEE LISTING UNDER CALIFORNIA, STATE OF)		
STATE-WIDE DEVELOPERS, INC		
SUCCESSOR TO KAISER, SAXTON AND STILES, INC	14.00	
DEDICATED TO CERRITOS, CITY OF	-14.00	
TOTAL		0.00
STATEWIDE STATIONS, INC		
SUCCESSOR TO TEXACO, INC	1.00	
TOTAL		1.00
STAUFFER CHEMICAL CO	145.00	
SOLD IN PART TO ASSOCIATED BEVERAGE CO, INC	-69.00	
SOLD IN PART TO PRUDENTIAL INSURANCE CO OF AMERICA, THE	-76.00	
TOTAL		0.00
STEELE, JOHN AND CLARA D	4.00	
SOLD TO JAR/CERRITOS CORPORATE CENTER	-4.00	
TOTAL		0.00
STEFANI, STEVE, JR	0.00	
TOTAL		0.00
STEFANI, STEVE SR AND DORA	30.00	
(HENRY BAAR AND FRED FEKKES, TENANTS)		
SOLD TO TROY HOMES, INC	-30.00	
TOTAL		0.00
STELLINGWERF, ANDREW	0.00	
TOTAL		0.00
STELLINGWERF, HENRY AND JEANETTE	11.00	
SOLD TO CASA GRANDE	-11.00	
TOTAL		0.00
STEPHEN-BLACK CO		
SUCCESSOR TO VAN LEEUWEN, JAKE JR AND CORNELIA J	7.00	
DEDICATED TO CERRITOS, CITY OF	-7.00	
TOTAL		0.00
STERK, HENRY AND BETTY S	91.00	
DEDICATED TO CERRITOS, CITY OF	-91.00	
TOTAL		0.00
STERLING DEVELOPMENT CO		
SUCCESSOR TO GONSALVES, ALBERT S AND CAROLINE D	8.00	
DEDICATED TO CERRITOS, CITY OF	-8.00	
TOTAL		0.00
STEWART, JAMES L AND PEGGY		
APPORTIONED FROM WELLS, RICHARD A AND BEVERLY ANN, AS TO UNDIVIDED ONE-HALF INTEREST AND HARLEY LEE, AS TO UNDIVIDED ONE-HALF INTEREST	1.00	
SOLD TO SPENCE, JERRY N	-1.00	
TOTAL		0.00
STIEFEL, V C	3.00	
SOLD TO EQUITY FUNDING DEVELOPMENT CORP	-3.00	
TOTAL		0.00
STOCKMAL, JOHN F		
(FORMERLY KNOWN AS STOCKMAL, SOPHIA J AND JOHN F)		
TRANSFERRED FROM STOCKMAL, SOPHIA J AND JOHN F	3.00	
SOLD TO CERRITOS, CITY OF	-3.00	
TOTAL		0.00
STOCKMAL, SOPHIA J AND JOHN F	3.00	
(NOW KNOWN AS STOCKMAL, JOHN F)		
TRANSFERRED TO STOCKMAL, JOHN F	-3.00	
TOTAL		0.00
STONEBRIDGE EQUITIES CORP		
SUCCESSOR TO IDSINGA, PETE W	10.00	
SOLD TO HUNTINGTON PACIFIC CORP	-10.00	
TOTAL		0.00
STOVER, WILLIAM THOMAS AND GERTRUDE D	3.00	
SOLD TO BOLLES, W J	-3.00	
TOTAL		0.00
STRUIKMAN, LOUIS AND ALICE (LOUIS AND PETE STRUIKMAN DBA LOUIS STRUIKMAN AND SON, TENANTS AS TO 43 ACRE-FEET OF WATER RIGHT AND 34 ACRE-FEET OF ALLOWED PUMPING ALLOCATION; AND SIDNEY VAN DYKE, TENANT AS TO 10 ACRE-FEET OF WATER RIGHT AND 8 ACRE-FEET OF ALLOWED PUMPING ALLOCATION)	42.00	
SUCCESSOR TO STRUIKMAN, LOUIS AND PETER	3.00	
SUCCESSOR TO UNITED DAIRYMENS ASSOC	1.00	
SOLD TO ROCKVIEW DAIRIES, INC	-46.00	
TOTAL		0.00
STRUIKMAN, LOUIS AND PETER	3.00	
SOLD TO STRUIKMAN, LOUIS AND ALICE, ETC	-3.00	
TOTAL		0.00
STRUIKMANS, CORNELIUS AND IDA	7.00	
SOLD TO HAMRA, ROBERT J AND RAMZA	-7.00	
TOTAL		0.00
STRUIKMANS, HENRY AND NELLIE	10.00	
SOLD TO VAN GROOTHEEST, ALBERT L	-9.00	
SOLD TO VAN GROOTHEEST, ALBERT L AND GRACE S	-1.00	
TOTAL		0.00
STRUIKMANS, HENRY, JR	0.00	
TOTAL		0.00
SUBURBAN MUTUAL WATER CO	0.00	
TOTAL		0.00
SUBURBAN WATER SYSTEMS	2,933.00	
SUCCESSOR TO SOUTHWEST WATER CO	2,327.00	
SUCCESSOR IN PART TO SANTA FE SPRINGS, CITY OF	404.00	
SOLD IN PART TO SANTA FE SPRINGS, CITY OF	-2,404.00	
(NAME CHANGED TO SOUTHWEST SUBURBAN WATER CO)		
TRANSFERRED TO SOUTHWEST SUBURBAN WATER CO	-3,260.00	
(NAME CHANGED AGAIN FROM SOUTHWEST SUBURBAN WATER CO)		
TRANSFERRED FROM SOUTHWEST SUBURBAN WATER CO	3,721.00	
TOTAL		3,721.00
SULLY-MILLER CONTRACTING CO		
SUCCESSOR TO CONTRACTORS ASPHALT PRODUCTS CO, INC	13.00	
SOLD TO LYNWOOD, CITY OF	-13.00	
TOTAL		0.00
SUMA HOMES, INC AND NOVA HOMES, INC		
SUCCESSOR TO MONTGOMERY ROSS FISHER, INC	17.00	
DEDICATED TO CERRITOS, CITY OF	-17.00	
TOTAL		0.00
SUMIDA, KAZUO	2.00	

SOLD TO ABC UNIFIED SCHOOL DISTRICT	-2.00	
TOTAL		0.00
SUN COAST DEVELOPMENT CO	0.00	
TOTAL		0.00
SUN HOLDING CORP		
(SEE LISTING UNDER MAUSOLEUM PARK, INC AND SUN HOLDING CORP)		
SUNNYSIDE MAUSOLEUM CO	48.00	
SOLD TO COAST PACKING CO	-48.00	
TOTAL		0.00
SUNSET CEMETERY ASSOC	21.00	
SOLD TO SANTA FE SPRINGS, CITY OF	-21.00	
TOTAL		0.00
SUTTON, E A AND RAMONA	31.00	
SOLD TO SCHWORER, WILLIAM J, JR	-31.00	
TOTAL		0.00
SWIFT & CO	1,638.00	
SOLD IN PART TO CERRITOS, CITY OF	-896.00	
SOLD IN PART TO NATIONWIDE PROPERTY DEV CO INC	-742.00	
TOTAL		0.00
SYBRANDY, ROY AND ANNE	23.00	
SOLD TO SHAPELL, NATHAN	-23.00	
TOTAL		0.00
SYKES REALTY CO, FLOYD G MARCUSSON AND ALBERT C SYKES	2.00	
SOLD TO COUNTY WATER CO	-2.00	
TOTAL		0.00
SYTSMA, ANDY AND DOROTHY	16.00	
(ALBERT AND ROBERT SYTSMA, DOING BUSINESS AS SYTSMA BROS, TENANTS)		
SOLD TO NAVA CONSTRUCTION CO	-16.00	
TOTAL		0.00
TABITA, JOHN & ERMA, AND RAYMOND & KWANG IL		
SUCCESSOR TO WILLIAMS, JOHN J	2.00	
SOLD TO VAN DIEST WATER CO	-2.00	
TOTAL		0.00
TANCREDI, ROSE V		
SUCCESSOR IN PART TO VAN RUITEN, HENRY & MARY A, AS TO UNDIVIDED ONE-HALF INTEREST; AND JAKE & JACOBA VAN RUITEN, AS TO UNDIVIDED ONE-HALF INTEREST	54.00	
DEDICATED TO CERRITOS, CITY OF	-54.00	
TOTAL		0.00
TARR AND MCCOMB OIL CO, LTD	69.00	
(PABLO OROPEZA, TENANT)		
SOLD TO R A WATT CO	-69.00	
TOTAL		0.00
TASHIMA, ROY AND SHIGEO	1.00	
SOLD TO CERRITOS-PACIFIC DEVELOPMENT CO	-1.00	
TOTAL		0.00
TAUREK, MARY		
TRANSFERRED FROM ARZOUMAN, CHARLES AND NVART (1-17-2012)	1.00	
SOLD TO CECC, LLC. (10-4-2013)	-1.00	
TOTAL		0.00
TAWZER, FAY G AND LAWRENCE R		
(SEE LISTING UNDER GORDON, FERN ETHYL, ETC)		
TAYLOR, DOROTHY	0.00	
TOTAL		0.00
TAYLOR, QUENTIN D	0.00	
TOTAL		0.00
TEIXEIRA, CARL AND EVELYN	9.00	
(NOW KNOWN AS TEIXEIRA, CARL)		
TRANSFERRED TO TEIXEIRA, CARL	-9.00	
TOTAL		0.00
TEIXEIRA, CARL		
(FORMERLY KNOWN AS TEIXEIRA, CARL AND EVELYN)		
TRANSFERRED FROM TEIXEIRA, CARL AND EVELYN	9.00	
SOLD IN PART TO BONDED CATTLE CO	-7.00	
DEDICATED IN PART TO CERRITOS, CITY OF	-2.00	
TOTAL		0.00
TEIXEIRA, GEORGE S AND LAURA L	14.00	
SOLD TO LAKEWOOD, CITY OF	-14.00	
TOTAL		0.00
TELACU INDUSTRIAL PARK, INC		
SUCCESSOR TO THE B F GOODRICH CO	415.00	
SOLD TO COMMERCE, CITY OF	-415.00	
TOTAL		0.00
TESORO LOGISTICS OPERATIONS LLC		
SUCCESSOR TO ATLANTIC RICHFIELD COMPANY (6/27/2013)	54.00	
SOLD TO TESORO REFINING & MARKETING COMPANY LLC (11-14-2013)	-54.00	
TOTAL		0.00
TESORO REFINING & MARKETING COMPANY LLC		
SUCCESSOR TO TESORO LOGISTICS OPERATIONS LLC (11-14-2013)	54.00	
TOTAL		54.00
TEUNE, TEUNIS AND NELLIE		
SUCCESSOR IN PART TO ALBERS, J N AND NELLIE	17.00	
SOLD TO ALBERS, J N AND NELLIE	-17.00	
TOTAL		0.00
TE VELDE, HARM AND ZWAANTINA	202.00	
SUCCESSOR TO FIRST BAPTIST CHURCH OF CERRITOS	13.00	
SUCCESSOR TO OGDEN, CLAUDIA	2.00	
SUCCESSOR TO VAN DYK, WIECHERT AND JENNIE	10.00	
SOLD TO CALVARY CHRISTIAN REFORMED CHURCH OF CHINO	-227.00	
TOTAL		0.00
TEXACO, INC		
SUCCESSOR TO DE MARCO, JOE AND CONCETTA	1.00	
SOLD TO STATEWIDE STATIONS, INC	-1.00	
TOTAL		0.00
TF HIDDEN CREEKS, L.P.		
SUCCESSOR TO FORESTAR (USA) REAL ESTATE GROUP INC.	299.00	
SOLD TO LIBERTY UTILITIES CORPORATION	-299.00	
TOTAL		0.00
THEO HAMM BREWING CO		
(SEE HAMM, THEO, BREWING CO)		
THIRTY-THREE FORTY-FIVE EAST FORTY-FIFTH STREET, INC	14.00	
SOLD TO KAL KAN FOODS, INC	-14.00	
TOTAL		0.00
THOMPSON, DWIGHT O AND BEVERLY W		
SUCCESSOR TO THOMPSON, O T AND DRUSILLA	16.00	
SOLD TO CORDA, JOSEPH AND JOSEPH CERVANTES AND LARRY WINDLE	-16.00	
TOTAL		0.00
THOMPSON, O T AND DRUSILLA	16.00	
SOLD TO THOMPSON, DWIGHT O AND BEVERLY W	-16.00	
TOTAL		0.00
TIARA ESTATES, INC		
SUCCESSOR TO BORGES, JOHN AND MARY	11.00	
DEDICATED TO CERRITOS, CITY OF	-11.00	
TOTAL		0.00
TITLE INSURANCE AND TRUST CO		
SUCCESSOR TO AGAJANIAN, GEORGE E	6.00	
SUCCESSOR TO ARDEN-MAYFAIR, INC	75.00	
SUCCESSOR TO MOCHO, JEAN AND MICHAEL PLAA	9.00	
SUCCESSOR IN PART TO GODINHO, PAULINE, ESTATE OF	10.00	
APPORTIONED FROM MEINES, WILLIAM, LEO MITZELL, TITLE INSURANCE AND TRUST CO	2.00	
SOLD TO SOUTHERN PACIFIC TRANSPORTATION CO	-102.00	
TOTAL		0.00
TRACT NUMBER ONE HUNDRED AND EIGHTY WATER CO	1,221.00	
SUCCESSOR TO PACIFIC CONDOMINIUM MANAGEMENT INC	913.00	
SUCCESSOR TO SPRAGUE, FARAH	3.00	
SOLD TO BANK OF AMERICA NATIONAL TRUST AND SAVINGS ASSOC, AS TRUSTEE OF TRUST CREATED BY WILL OF TONY V FRIETAS, DECEASED	-913.00	
SUCCESSOR TO BANK OF AMERICA NATIONAL TRUST AND SAVINGS ASSOC, AS TRUSTEE OF TRUST CREATED BY WILL OF TONY V FRIETAS, DECEASED	913.00	
TOTAL		2,137.00
TRACT 349 MUTUAL WATER CO	423.00	
TOTAL	423.00	
TRINITY LUTHERAN CHURCH		
SUCCESSOR TO PASMA, RUDOLPH AND FRANCES C	8.00	
SOLD TO SOUTHLAND LUTHERAN HOME	-8.00	
TOTAL		0.00
TROOST, FRED AND ANNIE	42.00	
SOLD TO LAKEWOOD PROPERTIES	-42.00	
TOTAL		0.00
TROY HOMES, INC		
SUCCESSOR TO STEFANI, STEVE AND DORA	30.00	
SUCCESSOR IN PART TO GODINHO, PAULINE, ESTATE OF	15.00	
DEDICATED TO CERRITOS, CITY OF	-45.00	
TOTAL		0.00
TUCKER, WILLIAM M, AND/OR BOBBY RAY ROBERTSON, JR		
TRANSFERRED FROM TUCKER, WILLIAM M, RICARDO HESS VAHRENHOLT AND ROBERTO HESS VAHRENHOLT	8.00	
SOLD TO ECOGAS INC. (7/1/17)	-7.00	
TOTAL		1.00
TUCKER, WILLIAM M, RICARDO HESS VAHRENHOLT AND ROBERTO HESS VAHRENHOLT		
SUCCESSOR TO POLO PROPERTIES, LTD	8.00	
TRANSFERRED TO TUCKER, WILLIAM M AND/OR BOBBY RAY ROBERTSON, JR	-8.00	
TOTAL		0.00
TYBUS, FRANK W AND JUNE E		
(SEE LISTING UNDER LAKEWOOD PIPE CO)		
U S FINANCIAL		
SUCCESSOR TO LAKEWOOD PROPERTIES	1.00	
SOLD TO LAKEWOOD PROPERTIES	-1.00	
TOTAL		0.00
U S GROWERS COLD STORAGE, INC		
SUCCESSOR TO PERRICONE, SAM AND SEYMOUR OWENS	86.00	
SOLD TO WESTERN WATER CO	-86.00	
TOTAL		0.00
UEHLING WATER CO, INC	677.00	
SUCCESSOR TO H J S MUTUAL WATER CO	50.00	
SUCCESSOR TO HOME WATER CO	28.00	
SOLD TO PARK WATER CO	-755.00	

TOTAL		0.00
ULLRICH PROPERTIES		
SUCCESSOR TO MITZEL, LEO	2.00	
SOLD TO CERRITOS, CITY OF	-2.00	
TOTAL		0.00
UNION DEVELOPMENT CO, INC	10.00	
(NOW KNOWN AS UNION DEVELOPMENT FINANCIAL, INC)		
SUCCESSOR TO WOODINGTON DEVELOPMENT INC	2.00	
SOLD TO BELLFLOWER, CITY OF (8-13-2010)	-12.00	
TOTAL		0.00
UNION OIL CO OF CALIFORNIA		
(SEE LISTING UNDER EHRMAN, FLORENCE HELLMAN, ETC)		
SUCCESSOR IN PART TO EHRMAN, FLORENCE HELLMAN, ETC	139.00	
SOLD IN PART TO LA HABRA HEIGHTS MUTUAL WATER CO	-63.00	
SOLD IN PART TO MAYWOOD MUTUAL WATER CO NO 3	-63.00	
SOLD IN PART TO PICO BOYS BASEBALL, INC	-13.00	
TOTAL		0.00
UNION PACIFIC RAILROAD CO	525.00	
SOLD TO LONG BEACH, CITY OF	-525.00	
TOTAL		0.00
UNION PACKING CO	80.00	
SOLD TO PICO RIVERA, CITY OF	-80.00	
TOTAL		0.00
UNIROYAL TIRE CO - DIVISION OF UNIROYAL, INC.		
(FORMERLY KNOWN AS UNITED STATES RUBBER CO)		
TRANSFERRED FROM UNITED STATES RUBBER CO	656.00	
SOLD TO DAON CORP	-656.00	
TOTAL		0.00
UNITED CALIFORNIA BANK		
(SEE LISTING UNDER GORDON, HUNTLEY L)		
UNITED CALIFORNIA BANK, FORMERLY SANWA BANK CALIFORNIA, FORMERLY LLOYDS BANK CALIFORNIA, FORMERLY FIRST WESTERN BANK AND TRUST CO, AS TRUSTEE PURSUANT TO LAST WILL AND TESTAMENT OF TONY CORDEIRO, DECEASED		
TRANSFERRED FROM SANWA BANK CALIFORNIA, FORMERLY LLOYDS BANK CALIFORNIA, FORMERLY FIRST WESTERN BANK AND TRUST CO, AS TRUSTEE PURSUANT TO LAST WILL AND TESTAMENT OF TONY CORDEIRO, DECEASED	18.50	
MERGED WITH AND INTO BANK OF THE WEST	-18.50	
TOTAL		0.00
UNITED DAIRYMEN'S ASSOC	1.00	
SOLD TO STRUIKMAN, LOUIS AND ALICE, ETC	-1.00	
TOTAL		0.00
UNITED STATES GYPSUM CO	1,265.00	
SOLD IN PART TO AQUA CAPTAL MANAGEMENT LP	-900.00	
SOLD TO PUENTE BASIN WATER AGENCY (5-7-2012)	-365.00	
TOTAL		0.00
UNITED STATES RUBBER CO	656.00	
(NOW KNOWN AS UNIROYAL TIRE CO – DIVISION OF UNIROYAL, INC)		
TRANSFERRED TO UNIROYAL TIRE CO – DIVISION OF UNIROYAL, INC	-656.00	
TOTAL		0.00
UNITED STATES STEEL CORP	141.00	
SOLD TO SANTA FE SPRINGS, CITY OF	-141.00	
TOTAL		0.00
UYEDA, MASARU, HAJIME HARASHIMA AND TADASHI UYEDA	10.00	
SOLD TO KOTAKE, INC	-10.00	
TOTAL		0.00
VAHRENHOLT, RICARDO HESS		
(SEE LISTING UNDER TUCKER, WILLIAM M, RICARD HESS VAHRENHOLT AND ROBERTO HESS VAHRENHOLT)		
VAHRENHOLT, ROBERTO HESS		
(SEE LISTING UNDER TUCKER, WILLIAM M, RICARD HESS VAHRENHOLT AND ROBERTO HESS VAHRENHOLT)		
VALLEY CHRISTIAN SCHOOLS		
SUCCESSOR TO BELLFLOWER CHRISTIAN SCHOOL	26.00	
SOLD TO ROCKVIEW DAIRIES, INC	-26.00	
TOTAL		0.00
VAN BEEK, G A		
(SEE LISTING UNDER HOP, ART, SR AND JOHANNA)		
VAN DAM, BAS		
(SEE LISTING UNDER VAN DAM, GERTRUDE)		
VAN DAM, CARRIE AGNES		
(SEE LISTING UNDER BOOTSMA, BERNARD WILLIAM, CARRIE AGNES VAN DAM, AND GLADYS MARIE ROMBERG)		
VAN DAM, CORNELIUS A AND FLORENCE	19.00	
SUCCESSOR TO WIERSMA, HARM	13.00	
SOLD TO MONTEBELLO LAND AND WATER CO	-32.00	
TOTAL		0.00
VAN DAM, DICK JR	0.00	
TOTAI		0.00
VAN DAM, GERRIT AND GRACE	10.00	
(WILLIAM DE KRIEK, TENANT)		
SOLD TO KAISER AETNA	-10.00	
TOTAL		0.00
VAN DAM, GERTRUDE	38.00	
(BAS VAN DAM, TENANT AS TO 29 ACRE-FEET OF WATER RIGHT AND 23 ACRE-FEET OF ALLOWED PUMPING RIGHT, AND HENRY VAN DAM, TENANT AS TO 19 ACRE-FEET OF WATER RIGHT AND 15 ACRE-FEET OF ALLOWED PUMPING RIGHT)		
SOLD TO CERRITOS VENTURE	-38.00	
TOTAL		0.00
VAN DAM, HANK AND JESSIE	18.00	
(VIVA ORMONDE, TENANT)		
SOLD TO VANDER FEER, PETER AND RIEKA	-18.00	
TOTAL		0.00
VAN DAM, HENRY		
(SEE LISTING UNDER VAN DAM, GERTRUDE)		
VANDENBERG, ANDREW W		
(SEE VANDENBERG, AUGUST, BEN W AND ANDREW W)		
VANDENBERG, AUGUST, BEN W AND ANDREW W	5.00	
(JAN BOKMA, TENANT)		
(NOW KNOWN AS VANDENBERG, AUGUST, ET AL)		
TRANSFERRED TO VANDENBERG, AUGUST, ET AL	-5.00	
TOTAL		0.00
VANDENBERG, AUGUST, ET AL		
(FORMERLY KNOWN AS VANDENBERG, AUGUST, BEN W AND ANDREW W (JAN BOKMA, TENANT)		
TRANSFERRED FROM VANDENBERG, AUGUST, BEN W AND ANDREW W	5.00	
SOLD TO SOMERSET MUTUAL WATER CO	-5.00	
TOTAL		0.00
VANDENBERG, BEN W		
(SEE VANDENBERG, AUGUST, BEN W AND ANDREW W)		
VANDENBERG, JACOB AND ANNA	6.00	
(PETE NAUTA, TENANT)		
SOLD TO BAUER DEVELOPMENT CO	-6.00	
TOTAL		0.00
VAN DEN RAADT, JOHN	4.00	
SOLD TO DUNN, L AND M	-4.00	
TOTAL		0.00
VANDER DUSSEN, COR AND FIKSE, GERRIT W		
SUCCESSOR TO SOUTHFIELD, HENIJETTA	4.00	
SOLD TO HORSESHOE CATTLE CO	-4.00	
TOTAL		0.00
VANDER DUSSEN, M AND ALETTA C	10.00	
SOLD TO WESTERN INVESTMENT LTD, CO	-10.00	
TOTAL		0.00
VANDER DUSSEN, SYBRAND AND JOHANNA	18.00	
SOLD TO HATHAWAY RANCH CO	-18.00	
TOTAL		0.00
VANDER EYK, CORNELIUS AKA CASE VANDER EYK, AND NELLY VANDER EYK AKA NELLIE VANDER EYK	6.00	
SOLD TO BRENTWOOD MORNING CO	-6.00	
TOTAL		0.00
VANDER FEER, PETER AND RIEKA		
SUCCESSOR TO VAN DAM, HANK AND JESSIE	18.00	
SOLD TO CERRITOS VILLAGE	-18.00	
TOTAL		0.00
VAN DER HAM, GEORGE AND ALICE	8.00	
SOLD TO CARMENITA VILLAGE	-8.00	
TOTAL		0.00
VANDERHAM, HUIBERT AND HENRIETTA	26.00	
DEDICATED TO CERRITOS, CITY OF	-26.00	
TOTAL		0.00
VANDERHAM, JOE AND CORNELIA	10.00	
SOLD TO COAST PACKING CO	-10.00	
TOTAL		0.00
VANDERHAM, JOHN AND NELL M	16.00	
SOLD TO SANTA FE SPRINGS, CITY OF	-16.00	
TOTAL		0.00
VANDER KOOI, CHARLIE AND LENA MAE	10.00	
(SEE ALSO LISTING UNDER BORDATO, MICHEL AND ANNA M)		
SOLD TO CERRITOS JUNIOR COLLEGE DISTRICT	-10.00	
TOTAL		0.00
VANDER KOOI, PETE		
(SEE LISTING UNDER HAAKMA, ED AND SJANA)		
VANDER LAAN, BERT AND STELLA	8.00	
SOLD TO BAUER DEVELOPMENT CO	-8.00	
TOTAL		0.00
VANDER SYS, MATT AND JOHANNA	10.00	
SOLD TO CERRITOS, CITY OF	-10.00	
TOTAL		0.00
VANDER VEGT, BILL AND HENNY	14.00	
SOLD TO KAISER, SAXTON AND STILES, INC	-14.00	
TOTAL		0.00
VANDER VEGT, GEORGE AND HOUJKE	10.00	
DEDICATED TO CERRITOS, CITY OF	-10.00	
TOTAL		0.00
VANDER WALL, HARRY J AND MARIAN E	10.00	
SOLD TO S D C, INC	-10.00	
TOTAL		0.00
VANDE VEGTE, BERT AND LILLIAN	1.00	
SOLD TO CALIFORNIA, STATE OF (HIGHWAYS)	-1.00	
TOTAL		0.00
VAN DIEST, ANTHONY	0.00	
TOTAL		0.00
VAN DIEST, CORNELIUS AND ANNA		
(SEE VANDIEST, JENNIE, ETC)		

VAN DIEST, ERNEST AND RENA
(SEE VANDIEST, JENNIE, ETC)
VAN DIEST, JENNIE, AS TO UNDIVIDED ONE-THIRD INTEREST; ERNEST AND RENA VAN DIEST, AS TO UNDIVIDED ONE-THIRD INTEREST; AND CORNELIUS AND ANNA VAN DIEST, AS TO UNDIVIDED ONE-THIRD INTEREST
(VAN DIEST DAIRY, TENANT) 16.00
SOLD TO LAKEWOOD, CITY OF -16.00
TOTAL 0.00
VAN DIEST, KATRENA AND/OR MARGARET 74.00
SUCCESSOR TO SQUIRE, RICHARD, HENRIETTA M AND ROBERT K 4.00
ASSIGNED TO VAN DIEST, MARGARET -22.00
ASSIGNED TO VAN DIEST WATER CO -56.00
TOTAL 0.00
VAN DIEST, MARGARET
ASSIGNED FROM VAN DIEST, KATRENA AND/OR MARGARET 22.00
SOLD TO CERRITOS, CITY OF -22.00
TOTAL 0.00
VAN DIEST WATER CO
SUCCESSOR TO ROSS, FRANK J 2.00
SUCCESSOR TO TABITA, JOHN, ET AL 2.00
ASSIGNED FROM VAN DIEST, KATRENA AND/OR MARGARET 56.00
SOLD TO PARAMOUNT, CITY OF -60.00
TOTAL 0.00
VAN DYK, HENRY W
(SEE LISTING UNDER VEENENDAAL, HENRIETTA)
VAN DYK, WIECHERT AND JENNIE 10.00
SOLD TO TE VELDE, HARM AND ZWAANTINA -10.00
TOTAL 0.00
VAN DYKE, CORTE
(SEE LISTING UNDER ADAMS, CHARLES E AND RHODA E)
VAN DYKE, SIDNEY
(SEE LISTING UNDER STRUIKMAN, LOUIS AND ALICE)
VAN EIK, HELEN GOEDHART
(SEE LISTING UNDER GOEDHART, HARRY N, ETC)
VAN FOEKEN, WILLIAM 0.00
TOTAL 0.00
VANGROOTHEEST, ALBERT L
(FORMERLY KNOWN AS VANGROOTHEEST, ALBERT L AND GRACE S)
TRANSFERRED FROM VANGROOTHEEST, ALBERT L AND GRACE S 1.00
SUCCESSOR TO STRUIKMANS, HENRY AND NELLIE 9.00
SOLD IN PART TO VANGROOTHEEST, ERNEST A -9.00
SOLD IN PART TO VANGROOTHEEST, ERNEST A -1.00
TOTAL 0.00
VANGROOTHEEST, ALBERT L AND GRACE S
SUCCESSOR IN PART TO STRUIKMANS, HENRY AND NELLIE 1.00
(NOW KNOWN AS VANGROOTHEEST, ALBERT L)
TRANSFERRED TO VANGROOTHEEST, ALBERT L -1.00
TOTAL 0.00
VANGROOTHEEST, ERNEST A
SUCCESSOR IN PART TO VANGROOTHEEST, ALBERT L 9.00
SUCCESSOR IN PART TO VANGROOTHEEST, ALBERT L 1.00
TOTAL 10.00
VAN HAASTER, JAKE AND GERARDA 0.00
SOLD TO GARCIA, A G -0.00
TOTAL 0.00
VAN LEEUWEN, ARIE C
(SEE LISTING UNDER BOUMAN, SAM)
VAN LEEUWEN, GERRIT OF 15405 SHOEMAKER ROAD, NORWALK
(SEE LISTING UNDER PACIFIC ELECTRIC RAILWAY CO)
VAN LEEUWEN, HENRY AND CAROLINE P; GERRIT 1.00
VAN LEEUWEN OF 5948 LORELEI ST., BELLFLOWER, AND ELLEN VAN LEEUWEN
DEDICATED TO CERRITOS, CITY OF -1.00
TOTAL 0.00
VAN LEEUWEN, JAKE JR AND CORNELIA J 7.00
(JAMES C. BOOGERD AND JAKE VAN LEEUWEN, JR DBA VAN LEEUWEN AND BOOGERD, TENANTS)
SOLD TO STEPHEN-BLACK CO -7.00
TOTAL 0.00
VAN LOON, ANTHONY R
(SEE LISTING UNDER VAN RUITEN, HENRY & MARY A, ETC)
VAN NIEROP, JOHN AND LILY E 0.00
TOTAL 0.00
VAN RUITEN, HENRY & MARY A, AS TO UNDIVIDED ONE-HALF INTEREST; AND JAKE & JACOBA VAN RUITEN, AS TO UNDIVIDED ONE-HALF INTEREST 70.00
(W P JORDAN, ANTHONY R VAN LOON, AND JULES WESSELINK, TENANTS)
SOLD IN PART TO TANCREDI, ROSE V -54.00
PARTITIONED TO VAN RUITEN, HENRY AND MARY A -7.00
PARTITIONED TO VAN RUITEN, JAKE AND JACOBA -9.00
TOTAL 0.00
VAN RUITEN, HENRY AND MARY A
PARTITIONED FROM VAN RUITEN, HENRY & MARY A, AS TO UNDIVIDED ONE-HALF INTEREST; AND JAKE & JACOBA VAN RUITEN, AS TO UNDIVIDED ONE-HALF INTEREST 7.00
SOLD TO VAN RUITEN, THOMAS G AND INGRID K -7.00
TOTAL 0.00
VAN RUITEN, JAKE AND JACOBA
PARTITIONED FROM VAN RUITEN, HENRY & MARY A, AS TO UNDIVIDED ONE-HALF INTEREST; AND JAKE & JACOBA VAN RUITEN, AS TO UNDIVIDED ONE-HALF INTEREST 9.00
SOLD IN PART TO LAKE CONSTRUCTION CO -2.00
SOLD IN PART TO VAN RUITEN, THOMAS G AND INGRID K -2.00
SOLD IN PART TO WALKER, KENNETH G -5.00
TOTAL 0.00
VAN RUITEN, PETE AND MARY 30.00
(FOR PURPOSES OF CLARIFICATION, THIS MARY VAN RUITEN IS ALSO KNOWN AS MRS PETE VAN RUITEN AND IS NOT THE SAME INDIVIDUAL AS SUED HEREIN AS MARY A VAN RUITEN, WHO IS ALSO KNOWN AS MRS HENRY G VAN RUITEN)
SUCCESSOR TO LANTING, S M AND ALICE 12.00
SOLD IN PART TO CASA DE LA CUESTA -8.00
SOLD IN PART TO MAYWOOD MUTUAL WATER CO NO 3 -34.00
TOTAL 0.00
VAN RUITEN, THOMAS G AND INGRID K
SUCCESSOR TO VAN RUITEN, HENRY AND MARY A 7.00
SUCCESSOR IN PART TO VAN RUITEN, JAKE AND JOCOBA 2.00
SOLD IN PART TO LAKE CONSTRUCTION CO -7.00
SOLD IN PART TO SCHOUTEN, HANS AND BARBARA -2.00
TOTAL 0.00
VAN SPANJE, Z
(SEE LISTING UNDER MITISUUCHI, FUMIKO)
VEENENDAAL, EVERT AND GERTRUDE
(SEE LISTING UNDER HARINGA, EARL; EVERT AND GERTRUDE VEENENDAAL)
SUCCESSOR TO HARINGA, EARL; EVERT AND GERTRUDE VEENENDAAL 18.00
DEDICATED TO CERRITOS, CITY OF -18.00
TOTAL 0.00
VEENENDAAL, HENRIETTA 8.00
(HENRY W VAN DYK, TENANT)
SOLD TO LINWOOD HOMES, INC -8.00
TOTAL 0.00
VEENENDAAL, HENRY AND HENRIETTA 6.00
SOLD TO LINWOOD HOMES, INC -6.00
TOTAL 0.00
VEENENDAAL, JOE H AND MARGIE 27.00
DEDICATED TO CERRITOS, CITY OF -27.00
TOTAL 0.00
VEENENDAAL, JOHN 0.00
TOTAL 0.00
VEHICLE MAINTENANCE AND PAINTING CORP
(SEE LISTING UNDER CONTEAS, NICHOLAS C AND P BASIL LAMBROS)
VELASCO, SALVADOR 13.00
DEDICATED TO CERRITOS, CITY OF -13.00
TOTAL 0.00
VELDHUIS, MIKE 0.00
TOTAL 0.00
VELDHUIZEN, ALBERT AND HELEN 18.00
SOLD TO CERRITOS JUNIOR COLLEGE DISTRICT -18.00
TOTAL 0.00
VERBREE, JACK 0.00
TOTAL 0.00
VERBURG, KLASSJE (MRS) 10.00
(LEON VERBURG TO EXTENT OF INTEREST UNDER CONTRACT TO PURCHASE)
SOLD TO LOS ANGELES COUNTY SANITATION DIST NO 2 -10.00
TOTAL 0.00
VERHOEVEN, JOHN C AND SADIE 20.00
SOLD TO CERRITOS, CITY OF -20.00
TOTAL 0.00
VERNON, CITY OF 7,206.00
SUCCESSOR TO HEUBLEIN, INC 173.00
SUCCESSOR TO SANTA FE LAND IMPROVEMENT CO 660.00
SOLD IN PART TO NORWALK, CITY OF (3/18/2013)) -500.00
TOTAL 7,539.00
VERNON COLD STORAGE, LLC
SUCCESSOR TO VERNON PROPERTIES 74.00
SOLD TO CALIFORNIA DOMESTIC WATER CO (06/30/2010) -74.00
TOTAL 0.00
VERNON PROPERTIES
SUCCESSOR TO FEDERAL ICE AND COLD STORAGE CO 74.00
SOLD TO VERNON COLD STORAGE, LLC -74.00
TOTAL 0.00
VERTEX DEVELOPMENT CORP
SUCCESSOR TO WOO, CHO SHEE 16.00
DEDICATED TO CERRITOS, CITY OF -16.00
TOTAL 0.00
VIERRA, JOSEPH C AND CAROLINE 10.00
(JOSEPH C AND WILLIAM J VIERRA, DOING BUSINESS AS VIERRA AND VIERRA, TENANTS)
SOLD IN PART TO CLASSIC DEVELOPMENT CO -1.00
SOLD IN PART TO KING KELLY MARMALADE CO, INC -9.00

TOTAL		0.00
VIERSTRA, SIEGER AND NELLIE G	10.00	
(JACOB J BOSMA, TENANT)		
SOLD TO FIKSE, ALFRED JR AND AGGIE	-10.00	
TOTAL		0.00
VIRGINIA COUNTRY CLUB OF LONG BEACH	272.00	
SUCCESSOR TO PENDER, MARK L AND MARY VIRGINIA	2.00	
TOTAL		
	274.00	
VISBEEK, ROY	0.00	
TOTAL		0.00
VISSER, LOUIS	7.00	
SOLD TO BONDED CATTLE CO	-7.00	
TOTAL		0.00
VISSER BROTHERS		
SUCCESSOR TO GONSALVES, JOE A AND VIRGINIA	10.00	
SUCCESSOR TO HAAGSMA, GERRIT AND MARY	8.00	
SOLD IN PART TO ABC UNIFIED SCHOOL DISTRICT	-10.00	
SOLD IN PART TO VISSER BROTHERS PROPERTIES	-8.00	
TOTAL		0.00
VISSER BROTHERS PROPERTIES		
SUCCESSOR IN PART TO VISSER BROTHERS	8.00	
SOLD TO MAYWOOD MUTUAL WATER CO NO 3	-8.00	
TOTAL		0.00
VISTA HILL PSYCHIATRIC FOUNDATION	31.00	
SOLD TO BURNHAM PSYCHIATRIC FOUNDATION	-31.00	
TOTAL		0.00
VON AH, LOUIE	0.00	
TOTAL		0.00
VONS GROCERY STORES		
SUCCESSOR TO ORLA CO	6.00	
SOLD TO LAKEWOOD, CITY OF	-6.00	
TOTAL		0.00
WALKER, KENNETH G		
SUCCESSOR IN PART TO VAN RUITEN, JAKE AND JACOBA	5.00	
SOLD TO FARMERS AND MERCHANTS TRUST CO OF LONG BEACH	-5.00	
TOTAL		0.00
WALNUT CREEK CANNING CO		
SUCCESSOR TO LUCKY STORES, INC	1.00	
DEDICATED TO CERRITOS, CITY OF	-1.00	
TOTAL		0.00
WALNUT IRRIGATION DISTRICT	123.00	
SOLD TO PICO RIVERA, CITY OF	-123.00	
TOTAL		0.00
WALNUT PARK MUTUAL WATER CO	996.00	
SUCCESSOR TO S & M MELLANO 1036 PACIFIC LLC (5/24/18)	4.33	
SUCCESSOR TO MELLANO, G. et. al (5/24/18)	8.67	
TOTAL		
	1,009.00	
WARMINGTON CONSTRUCTION CO		
SUCCESSOR TO BOUMAN, SAM	6.00	
SUCCESSOR TO HOFFMAN, HENRY H AND APOLONIA	10.00	
DEDICATED IN PART TO CERRITOS, CITY OF	-6.00	
SOLD IN PART TO CASA GRANDE	-10.00	
WARMINGTON DEVELOPMENT, INC		
SUCCESSOR TO GRENIER, MARIE LOUISE	8.00	
DEDICATED TO CERRITOS, CITY OF	-8.00	
TOTAL		0.00
WARMINGTON, E G, ET AL		
SUCCESSOR TO BURSON, MILES A AND ROSE	6.00	
SOLD TO CASA GRANDE	-6.00	
TOTAL		0.00
WATT INDUSTRIES, INC		
SUCCESSOR TO GOODYEAR TIRE AND RUBBER COMPANY, THE	913.00	
SOLD TO WATTS LABOR COMMUNITY ACTION COMMITTEE	-913.00	
TOTAL		0.00
WATT, R A, CO		
SUCCESSOR TO BOS, GERRIT AND MARGARET	70.00	
SUCCESSOR TO GORDON, FERN ETHYL, AS TO AN UNDIVIDED ONE-HALF INTEREST; FAY G TAWZER AND LAWRENCE R TAWZER, AS TO AN UNDIVIDED ONE-HALF INTEREST	14.00	
SUCCESSOR TO TARR AND MCCOMB OIL CO	69.00	
DEDICATED TO CERRITOS, CITY OF	-153.00	
TOTAL		0.00
WATTS LABOR COMMUNITY ACTION COMMITTEE		
SUCCESSOR TO WATT INDUSTRIES, INC	913.00	
SOLD TO PACIFIC CONDOMINIUM MANAGEMENT INC	-913.00	
TOTAL		0.00
WEAVER, BONNIE, AS SUCCESSOR TRUSTEE OF THE SJANA HAAKMA TRUST		
TRANSFERRED FROM HAAKMA, SJANA, AS TRUSTEE OF THE SJANA HAAKMA TRUST	11.00	
SOLD TO BELLFLOWER-SOMERSET MUTUAL WATER CO	-11.00	
TOTAL		0.00
WEBSTER, C D	1.00	
(SEE ALSO LISTING UNDER SOUTHERN CALIFORNIA EDISON CO)		
SOLD TO DE CORDOVA, JUAN	-1.00	
TOTAL		0.00
WEISS, MORRIS		
SUCCESSOR IN PART TO CLARK, RUSSELL B	6.00	
SOLD TO MURPHY, ELMO D AND EVELENE B	-6.00	
TOTAL		0.00
WEISS, MORRIS AND BESSIE	16.00	
(WILBUR MELLEMA, TENANT)		
(SEE ALSO LISTING UNDER MURPHY, ELMO D AND EVELENE B)		
SOLD TO MURPHY, ELMO D AND EVELENE B	-16.00	
TOTAL		0.00
WELLS FARGO BANK AS EXECUTOR OF THE ESTATE OF EDWARD H HELLER, DECEASED, AND AS EXECUTOR OF THE ESTATE OF LLOYD W DINKELSPIEL, DECEASED, AND AS TRUSTEE UNDER TRUST CREATED BY THE WILL OF FLORENCE H DINKELSPIEL, DECEASED		
(SEE LISTING UNDER EHRMAN, FLORENCE HELLMAN)		
WELLS, RICHARD A AND BEVERLY ANN, AS TO UNDIVIDED ONE-HALF INTEREST AND HARLEY LEE, AS TO UNDIVIDED ONE-HALF INTEREST		
SUCCESSOR TO BLACK, DELBERT G AND LENNIE O, AS TO UNDIVIDED ONE-HALF INTEREST AND HARLEY LEE, AS TO UNDIVIDED ONE-HALF INTEREST	2.00	
APPORTIONED TO STEWART, JAMES L AND PEGGY	-1.00	
SOLD IN PART TO SHENG, PING LING	-1.00	
TOTAL		0.00
WEMS, INC.		
SUCCESSOR TO HATHAWAY, JULIAN I AND HELEN M. TRUSTEES	8.00	
TOTAL		8.00
WESLOCK COMPANY		
SUCCESSOR TO GREEN HILLS DEVELOPMENT, INC	27.00	
SOLD TO SOUTH MONTEBELLO IRRIGATION DISTRICT	-27.00	
TOTAL		0.00
WESSELINK, JULES		
(SEE LISTING UNDER VAN RUITEN, HENRY & MARY A, ETC)		
WEST GATEWAY MUTUAL WATER CO	84.00	
SOLD TO SAN GABRIEL VALLEY WATER CO	-84.00	
TOTAL		0.00
WEST PAC, LTD		
SUCCESSOR TO MOORE, ALEXANDER AND BETTY L	13.00	
DEDICATED TO CERRITOS, CITY OF	-13.00	
TOTAL		0.00
WESTERN INVESTMENT LTD CO		
SUCCESSOR TO VANDER DUSSEN, M AND ALETTA C	10.00	
SOLD TO SOMERSET LAND CO	-10.00	
TOTAL		0.00
WESTERN REALCO		
SUCCESSOR TO MEINES, WILLIAM AND MARGARET	2.00	
SOLD TO SOMERSET LAND CO	-2.00	
TOTAL		0.00
WESTERN WATER CO		
SUCCESSOR IN PART TO GOLDEN WEST REFINING CO:		
DOCUMENT DATED 09/25/96	100.00	
DOCUMENT DATED 01/24/97	200.00	
DOCUMENT DATED 03/24/97	200.00	
DOCUMENT DATED 05/19/97	200.00	
DOCUMENT DATED 10/10/97	378.00	
SUCCESSOR TO CHIANG, JIH-SHEN AND YU-HWA	1.00	
SUCCESSOR TO LANGSLET, C ROBERT AND SON, INC	2.00	
SUCCESSOR TO RUCHTI BROTHERS	25.00	
SUCCESSOR TO SCHOLLE CORP	26.00	
SUCCESSOR TO SPENCE, JERRY N	1.00	
SUCCESSOR TO U S GROWERS COLD STORAGE, INC	86.00	
SOLD TO DOWNEY, CITY OF	-1219.00	
TOTAL		0.00
WESTPORT-CERRITOS CO		
SUCCESSORS TO LUETTO, JAKE J	10.00	
DEDICATED TO CERRITOS, CITY OF	-10.00	
TOTAL		0.00
WESTRA, HENRY AND HILDA	32.00	
SOLD TO BRENTWOOD-MORNING CO	-32.00	
TOTAL		0.00
WESTRA, JOHN D		
(SEE LISTING UNDER ORLA CO)		
WHARRAM, FRANCIS O		
(SEE LISTING UNDER SHAYMAN AND WHARRAM)		
WHITTIER, CITY OF	621.00	
SUCCESSOR TO CALIFORNIA, STATE OF	246.00	
SUCCESSOR TO PORTE, GARRET AND CECELIA	28.00	
TOTAL		
	895.00	
WHITTIER UNION HIGH SCHOOL DISTRICT	100.00	
TOTAL		
	100.00	
WIER, AREND Z	11.00	
(NOW KNOWN AS ZWIER, AREND)		
TRANSFERRED TO ZWIER, AREND	-11.00	
TOTAL		0.00
WIERSEMA, H	13.00	
(AKA HARM WIERSEMA AND PEARL WIERSEMA)		
SOLD TO VAN DAM, CORNELIUS	-13.00	

TOTAL		0.00
WIERSMA, WILLIAM AND ELBRA	6.00	
(NOW KNOWN AS WIERSMA, WILLIAM, ESTATE OF)		
TRANSFERRED TO WIERSMA, WILLIAM, ESTATE OF	-6.00	
TOTAL		0.00
WIERSMA, WILLIAM, ESTATE OF		
(FORMERLY KNOWN AS WIERSMA, WILLIAM AND ELBRA)		
TRANSFERRED FROM WIERSMA, WILLIAM AND ELBRA	6.00	
SOLD TO BELLFLOWER-SOMERSET MUTUAL WATER CO)	-6.00	
TOTAL		0.00
WIGBOLY, RICHARD		
(SEE LISTING UNDER OF CENTRAL MANUFACTURING DISTRICT, INC)		
WILCOX, MARY		
(SEE LISTING UNDER JENKINS REALTY MUTUAL WATER CO)		
WILLIAMS, JOHN J		
SUCCESSOR TO BECKLUND, IVER F	1.00	
SUCCESSOR TO BECKLUND, MARGARET E	1.00	
SOLD TO TABITA, JOHN & IRMA AND RAYMOND & KWANG IL	-2.00	
TOTAL		0.00
WILLIAMS, RALPH P AND MARY	11.00	
SOLD TO LOS ANGELES COUNTY SANITATION DISTRICT NO 2	-11.00	
TOTAL		0.00
WILSHIRE OIL CO OF CALIFORNIA	1,436.00	
SOLD TO GULF OIL CORP	-1,436.00	
TOTAL		0.00
WILSON, MELVIN L AND MARIE	1.00	
SOLD TO DAIRY VALLEY ASSOCIATES	-1.00	
TOTAL		0.00
WINDLE, LARRY		
(SEE LISTING UNDER CORDA, JOSEPH, JOSEPH CERVANTES, AND LARRY WINDLE)		
WINSLOW, D P AND DOROTHY C	12.00	
(BERTON ELSON, TENANT)		
(NOW KNOWN AS WINSLOW, SUSAN C)		
TRANSFERRED TO WINSLOW, SUSAN C	-12.00	
TOTAL		0.00
WINSLOW, SUSAN C		
(FORMERLY KNOWN AS WINSLOW, D P AND DOROTHY C)		
TRANSFERRED FROM WINSLOW, SUSAN C	12.00	
SOLD TO DOWNEY, CITY OF	-12.00	
TOTAL		0.00
WINTERS, HELENE K	1.00	
DEDICATED TO CERRITOS, CITY OF	-1.00	
TOTAL		0.00
WISEMAN, FRED E AND GRAYCE ANNA	2.00	
SOLD TO ARDEN-MAYFAIR, INC	-2.00	
TOTAL		0.00
WOLFSBERGER, HELEN AND CHRISTINE JOSEPH	2.00	
TOTAL		2.00
WOMACK, VOLNEY	0.00	
TOTAL		0.00
WOO, CHO SHEE	16.00	
(HONG AND NGORN SEUNG WOO, AS AGENTS OF PROPERTY FOR CHO SHEE WOO)		
SOLD TO VERTEX DEVELOPMENT CO	-16.00	
TOTAL		0.00
WOODBINE CORP		
SUCCESSOR TO B B LTD	2.00	
DEDICATED TO CERRITOS, CITY OF	-2.00	
TOTAL		0.00
WOODINGTON DEVELOPMENT, INC		
SUCCESSOR TO HARRIS, GERALD E	2.00	
SOLD TO UNION DEVELOPMENT	-2.00	
TOTAL		0.00
WYBENGA, GERRIT AND RENA	8.00	
SOLD TO ALBERS, J N AND NELLIE	-8.00	
TOTAL		0.00
YAMAMOTO, GEORGE AND ALICE AKA FUMI YAMAMOTO	14.00	
(FUMI GARDEN FARMS, INC, TENANT)		
(SEE ALSO LISTING UNDER SOUTHERN CALIFORNIA EDISON CO)		
TOTAL		14.00
YOKOTA, PAUL N AND MIYO	4.00	
SOLD TO FROST, JESS L AND DOLORES	-4.00	
TOTAL		0.00
YOSHIJIMA, MINORU		
(SEE LISTING UNDER HATANAKA, KAZUO)		
YOSHIOKA, FRANK	0.00	
TOTAL		0.00
YOUNG, MAXINE	3.00	
DEDICATED TO CERRITOS, CITY OF	-3.00	
TOTAL		0.00
ZANDVLIET, A (MRS) AKA ANNA A ZANDVLIET	6.00	
SOLD TO PRESLEY DEVELOPMENT CO	-6.00	
TOTAL		0.00
ZANE LIVING TRUST		
NAME CHANGED FROM ZANE, STEVE OR FRANCES	11.50	
TRANSFERRED IN PART TO CORNING TRUST (2/20/2013)	-3.75	
TRANSFERRED IN PART TO FOOTBRIDGE 1 TRUST (2/20/2013)	-3.75	
TRANSFERRED IN PART TO NANCY DEE KEANE LIVING TRUST (2/20/2013)	-4.00	
TOTAL		0.00
ZANE, STEVE		
SUCCESSOR TO DEANS, B ROZALPHA	32.00	
SOLD TO BONDED CATTLE CO	-32.00	
TOTAL		0.00
ZANE, STEVE OR FRANCES		
DISTRIBUTED FROM BONDED CATTLE CO	11.50	
NAME CHANGE TO ZANE LIVING TRUST	-11.50	
TOTAL		0.00
ZEILSTRA, ARNOLD AND NELLIE	5.00	
DEDICATED TO CERRITOS, CITY OF	-5.00	
TOTAL		0.00
ZIVELONGHI, GEORGE AND ANTONIO	97.00	
SOLD IN PART TO CERRITOS, CITY OF	-45.00	
SOLD IN PART TO MAYWOOD MUTUAL WATER CO NO 3	-52.00	
TOTAL		0.00
ZUIDERVAART, DICK AND JANNA	1.00	
(ARTESIA MILLING CO, TENANT)		
SOLD TO ROCKVIEW DAIRIES, INC	-1.00	
TOTAL		0.00
ZWIER, AREND		
(FORMERLY KNOWN AS WIER, AREND Z)		
TRANSFERRED FROM WIER, AREND Z	11.00	
SOLD TO GLEN-HAGEN DEVELOPMENT CO	-11.00	
TOTAL		0.00
ZYLSTRA, ANDY	0.00	
TOTAL		0.00
ZYLSTRA BROS, A PARTNERSHIP CONSISTING OF LAMMERT AND WILLIAM ZYLSTRA		
(SEE LISTING UNDER COITO, JOHN H AND GUILHERMINA)		
ZYLSTRA, JOHN AND LEONARD J DBA THE ZYLSTRA DAIRY	18.00	
SOLD IN PART TO CERRITOS, CITY OF	-10.00	
SOLD IN PART TO RANDALL, B WILLIAM AND YVONNE E	-8.00	
TOTAL		0.00
ZYLSTRA, LEONARD	0.00	
(NOT SAME PERSON AS ZYLSTRA, LEONARD J)		
TOTAL		0.00
GRAND TOTAL		217,367.00

NOTES:
Arrangement:
Party Names are arranged in straight alphabetical order.

A personal name is entered under the Last Name, First Name and Middle Name order.

Appendix C

Parties to the Third Amended Judgment

as of

June 2020

ABC Unified School District
American Textile Maintenance Company
Angeles Abbey Memorial Park, Inc
Aqua Capital Management LP
Arco Metals Co. American Brass
Artesia Cemetery District
Artesia, City of
Artesia Ice
Atkinson Brick Company
Atlantic Richfield Company
Atlas Iron & Metal Co.
Automobile Club of Southern California
Baker Commodities, Inc
Bell Gardens, City of
Bellflower Home Garden Water Company
Bellflower Unified School District
Bellflower, City of
Bellflower-Somerset Mutual Water Company
Boy Scouts of America, Long Beach Area
Buell, Mary Dolores
California-American Water Company
California-Domestic Water Company
State of California, Caltrans
California Water Service Company
California Water Service Company (Dominguez)
Central Basin Municipal Water District
Cerritos, City of
Cerritos Community College District
Chang, I-Hsin and Associates
Chevron USA, Inc
Coast Packing Company
Commerce, City of
Compton, City of
Compton Unified School District
Corning Trust
Crandell, F.J.
Darling-Delaware Company, Inc
Dolan, J.E., P.A., & T.P.
Downey, City of
EcoGas, Inc.
El Rancho Unified School District
Emoto, John H.
Equilon Enterprises, LLC
Exide Technologies
Farmers & Merchants Trust Co. of Long Beach
Flesch, Elizabeth, et al
Footbridge 1 Trust
Ford Motor Company
Forestar (USA) Real Estate Group Inc
Frampton, Harvey
Frampton, William H.
Furr, Nancy
Golden State Water Company
Gordon, Robert E
Grant, John
Graham, Hugh W. or Marcia K., Trustees
Harada Brothers
Hathaway, Jesse R.
Hathaway, Merrie F.
Hathaway, Richard F., Jr.
Hathaway, William A
Hathaway, Loline
Hoke, Barbara and Rosing, Nancy
Hoke, Barbara
Huntington Park, City of
Inglewood Park Cemetery
Jones Company, The
Kotake, Masao
LA Brickyard, LLC
La Habra Heights County Water District
Lakewood, City of
Lincoln Memorial Park, Inc
Little Lake Cemetery District
Long Beach, City of
Los Angeles, City of
Los Angeles County Rancho Los Amigos
Lunday-Thagard Oil Company
Lussman, Paul H., Jr., et al
Lynwood, City of
Lynwood Park Mutual Water Company
Margulies, Kathryn and Schwartz, Jon
Martin, Mary
Maywood Mutual Water Company No 1
Maywood Mutual Water Company No 2

Maywood Mutual Water Company No 3
Mellano, G., et al
Metro-H2O
Mitsuuchi, Mary F. Trust
Montebello, City of
Montebello Land and Water Company
Nancy Dee Keane Living Trust
New England Mutual Life Insurance Company
Newark Group, Inc, The
Northrop Grumman Systems Corporation
Norwalk, City of
Norwalk-La Mirada Unified School District
ONK Farms
Oltmans Construction Company
Orchard Dale Water District
OU2 Environmental Remediation Trust
PABCO Building Products, LLC
Paradise Memorial Park
Paramount, City of
Paramount Unified School District
Liberty Utilities (Park Water Company)
Patrician Associates Inc/Majestic Realty Company
Petersburg, L.P.
Pico Boys Baseball, Inc
Pico Rivera, City of
Pico Water District
Puente Basin Water Agency
Randall, Villis Family Trust
Rippy, Francine
Rockview Dairies, Inc
Rocky Mountain Industries, Inc
Roman Catholic Archbishop of Los Angeles
Rosales, Elvira C
Rosing, L.S. Trust and P. Schwartz
Rosing, Nancy
Rowland Water District
St. John Bosco School
San Gabriel Valley Watery Company
Santa fe Springs, City of
Sativa- Los Angeles County Water District
Scantlebury, Robert P.
September Properties, LLC
Signal Hill, City of
Simmons Survivor's Trust
South Gate, City of
South Montebello Irrigation District
Southern California Edison Company
Statewide Stations, Inc
Suburban Water Systems
Taurek, Mary
Tesoro Logistics Operations
Tesoro Refining & Marketing Company LLC
Tract No. 180 Water Company
Tract No. 349 Mutual Water Company
Tucker, W. and/or Bobby Robertson
Vangrootheest, Ernest A
Vernon, City of
Virginia Country Club
Walnut Park Mutual Water Company
WEMS, Inc
Whittier, City of
Whittier Union High School District
Wolfsberger, Helen and Christine Joseph
Yamamoto, George and Alice
Zane Living Trust

Parties that are **bold** signify water rights holders.

Appendix D

Erratum of Central Basin Watermaster Annual Report

for July 1,2018 - June 30, 2019

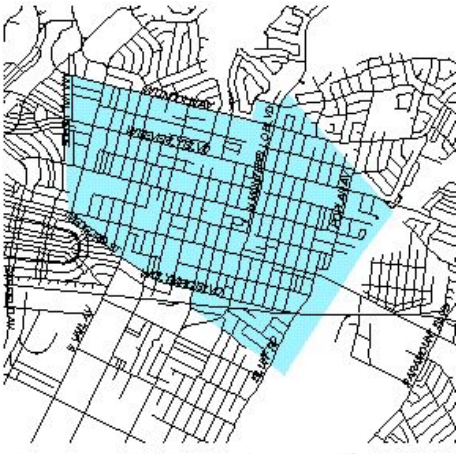
Report Page No.	Original Text	Correction
1	2018-2019 Rights Holders: 127	2018-2019 Rights Holders: 126
1	2017-2018 Total water use by parties: 313,496	2017-2018 Total water use by parties: 311,818
1	2018-2019 Total water use by parties: 299,503	2018-2019 Total water use by parties: 297,572
16	Table 1: Roman Catholic Archbishop of Los Angeles -2019-20 Normal Carryover: 208.20 -2019-20 Total Carryover: 298.81	Table 1: Roman Catholic Archbishop of Los Angeles -2019-20 Normal Carryover: 199.59 -2019-20 Total Carryover: 290.20
97	Appendix C: Aqua Capital Management LP is listed in bold, which signifies that it is a water rights holder	Appendix C: Aqua Capital Management LP should not be bold; it is not a water rights holder

Appendix 7-1
2020 Annual Water Quality Report

MONTEBELLO LAND AND WATER COMPANY
2020 ANNUAL WATER QUALITY REPORT

Since 1991, California water utilities have been providing information on water served to its consumers. This report is a snapshot of the tap water quality that we provided last year. Included are details about where your water comes from, how it is tested, what is in it, and how it compares with state and federal limits. We strive to keep you informed about the quality of your water, and to provide a reliable and economical supply that meets all regulatory requirements.

Where Does My Tap Water Come From?



Your tap water comes from local, deep groundwater wells that supply our service area shown on the adjacent map. The quality of groundwater delivered to your home is presented in this report.

How is My Drinking Water Tested?

Your drinking water is tested regularly for unsafe levels of chemicals, radioactivity and bacteria at the source and in the distribution system. We test weekly, monthly, quarterly, annually or less often depending on the substance. State and federal laws allow us to test some substances less than once per year because their levels do not change frequently. Some of our data, although representative, is more than one year old. All water quality tests are conducted by specially trained technicians in state-certified laboratories.

What Are Drinking Water Standards?

The U.S Environmental Protection Agency (USEPA) limits the amount of certain substances allowed in tap water. In California, the State Water Resources Control Board, Division of Drinking Water (Division) regulates tap water quality by enforcing limits that are at least as stringent as the USEPA's. Historically, California limits are more stringent than the Federal ones.

There are two types of these limits, known as standards. Primary standards protect you from substances that could potentially affect your health. Secondary standards regulate substances that affect the aesthetic qualities of water. Regulations set a Maximum Contaminant Level (MCL) for each of the primary and secondary standards. The MCL is the highest level of a substance that is allowed in your drinking water.

Public Health Goals (PHGs) are set by the California Environmental Protection Agency. PHGs provide more information on the quality of drinking water to customers, and are similar to their federal counterparts, Maximum Contaminant Level Goals (MCLGs). PHGs and MCLGs are advisory levels that are non-enforceable. Both PHGs and MCLGs are concentrations of a substance below which there are no known or expected health risks.

How Do I Read the Water Quality Table?

Although we test for over 100 substances, regulations require us to report only those found in your water. The first column of the water quality table lists substances detected in your water. The next columns list the average concentration and range of concentrations found in your drinking water. Following are columns that list the MCL and PHG or MCLG, as appropriate. The last column describes the likely sources of these substances in drinking water.

To review the quality of your drinking water, compare the highest concentration and the MCL. Check for substances greater than the MCL. Exceedance of a primary MCL does not usually constitute an immediate health threat. Rather, it requires testing the source water more frequently for a short duration. If test results show that the water continues to exceed the MCL, the water must be treated to remove the substance, or the source must be removed from service.

Why Do I See So Much Coverage in the News About the Quality Of Tap Water?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, including viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;

- Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming;
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gasoline stations, urban stormwater runoff, agricultural application, and septic systems;
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and the Division prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that must provide the same protection for public health.

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791). You can also get more information on tap water by logging on to these helpful web sites:

- https://www.epa.gov/ground-water-and-drinking-water (USEPA web site)
- https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/publicwatersystems.html (Division web site)

Should I Take Additional Precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The USEPA/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection of *Cryptosporidium* and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

An Explanation of Lead in Tap Water

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Montebello Land and Water Company is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water.

Source Water Assessment

The Montebello Land and Water Company conducted an assessment of its groundwater supplies in 2003. Groundwater supplies are considered most vulnerable to water supply wells, historic railroad right-of-ways, and railroads, and may be vulnerable to landfills/dumps, automobile gasoline stations, dry cleaners, sewer collection systems, and fleet/truck/bus terminals. A copy of the approved assessment may be obtained by contacting Korey Bradbury at (323) 722-8654.

How Can I Participate in Decisions On Water Issues That Affect Me?

The public is welcome to attend the Board meeting on the second Tuesday of the month at 9 a.m. at 344 East Madison Avenue, Montebello, California 90640.

How Do I Contact My Water Agency If I Have Any Questions About Water Quality?

If you have specific questions about your tap water quality, please contact Korey Bradbury at (323) 722-8654.

Visit us at www.mtblw.com

MONTEBELLO LAND AND WATER COMPANY
2020 ANNUAL WATER QUALITY REPORT

Results are from the most recent testing performed in accordance with state and federal drinking water regulations

PRIMARY STANDARDS TESTED IN GROUNDWATER – MANDATED FOR PUBLIC HEALTH

ORGANIC CHEMICALS (µg/l) Tested annually	GROUNDWATER AVERAGE	GROUNDWATER RANGE	PRIMARY MCL	PHG or (MCLG) (b)	MAJOR SOURCES IN DRINKING WATER
None detected in 2020	(a)	(a)	NA	NA	Industrial and agricultural discharges

INORGANICS Tested from 2019 to 2020, except nitrate which is tested annually					
Arsenic (µg/l)	<2 **(c)**	ND - 2	10	0.004	Erosion of natural deposits
Fluoride (mg/l)	0.27	0.18 - 0.35	2	1	Erosion of natural deposits
Nitrate (mg/l as N)	1.5	ND - 2.6	10	10	Runoff and leaching from fertilizer use/septic tanks

RADIOLOGICAL Tested from 2016 to 2020					
Gross Alpha (pCi/l)	<3 **(c)**	ND - 3.1	15	(0)	Erosion of natural deposits
Radium 226+228 (pCi/l)	ND	ND	5	(0)	Erosion of natural deposits
Uranium (pCi/l)	1.4	ND - 2.5	20	0.43	Erosion of natural deposits

PRIMARY STANDARDS TESTED IN THE DISTRIBUTION SYSTEM

MICROBIALS Tested weekly	# POSITIVE	RANGE	MCL	MCLG	MAJOR SOURCES IN DRINKING WATER
Total Coliform Bacteria	0	0	Greater than 1 positive	0	Naturally present in the environment
Fecal Coliform and *E.Coli*	0	0	0	0	Human and animal fecal waste
No. of Acute Violations	0	0	-	-	

DISINFECTION BYPRODUCTS AND CHLORINE RESIDUAL (d)	DISTRIBUTION SYSTEM AVERAGE	DISTRIBUTION SYSTEM RANGE	MCL or (MRDL) (e)	MRDLG (f)	MAJOR SOURCES IN DRINKING WATER
Trihalomethanes-TTHMS (µg/l)	25	4.6 - 25	80	NA	By-product of drinking water chlorination
Haloacetic Acids (µg/l)	4.2	1.3 - 3.6	60	NA	By-product of drinking water disinfection
Total Chlorine Residual (mg/l)	0.61	0.2 - 1.4	(4.0)	4.0	Drinking water disinfectant added for treatment

AT THE TAP LEAD AND COPPER 30 Tap Samples Tested in 2020 **(g)**	90th PERCENTILE	# SITES ABOVE AL	ACTION LEVEL	PHG	MAJOR SOURCES IN DRINKING WATER
Copper (mg/l)	0.57	0 out of 30	1.3	0.3	Internal corrosion of household plumbing
Lead (µg/l)	ND<5	0 out of 30	15	0.2	Internal corrosion of household plumbing

SECONDARY STANDARDS TESTED IN GROUNDWATER – FOR AESTHETIC PURPOSES

Tested from 2019 to 2020

	GROUNDWATER AVERAGE	GROUNDWATER RANGE	SECONDARY MCL	PHG or (MCLG)	MAJOR SOURCES IN DRINKING WATER
Chloride (mg/l)	70	57 - 76	500	NA	Runoff/leaching from natural deposits
Color (color units)	<3 **(c)**	ND - 5	15	NA	Naturally-occurring organic materials
Conductivity (µmhos/cm)	710	660 - 750	1,600	NA	Substances that form ions when in water
Iron (µg/l)	<100 **(c)**	ND - 300	300	NA	Runoff/leaching from natural deposits
Manganese (µg/l)	<20 **(c)**	ND - 39	50	NA	Leaching from natural deposits
Odor (threshold odor number)	1.1	1 - 2	3	NA	Naturally-occurring organic materials
Sulfate (mg/l)	100	87 - 120	500	NA	Runoff/leaching from natural deposits
Total Dissolved Solids (mg/l)	420	390 - 440	1,000	NA	Runoff/leaching from natural deposits
Turbidity (NTU)	0.31	ND - 1.8	5	NA	Soil runoff

SECONDARY STANDARDS TESTED IN THE DISTRIBUTION SYSTEM

GENERAL PHYSICAL CONSTITUENTS	DISTRIBUTION SYSTEM AVERAGE	DISTRIBUTION SYSTEM RANGE	SECONDARY MCL	PHG or (MCLG)	MAJOR SOURCES IN DRINKING WATER
Color (color units)	<3 **(c)**	ND - 5	15	NA	Naturally-occurring organic materials
Odor (threshold odor number)	<1 **(c)**	ND - 1	3	NA	Naturally-occurring organic materials
Turbidity (NTU)	<0.1 **(c)**	ND - 0.45	5	NA	Leaching from natural deposits

UNREGULATED CHEMICALS OF INTEREST TESTED IN GROUNDWATER

Tested from 2019 to 2020

	GROUNDWATER AVERAGE	GROUNDWATER RANGE	NL	PHG or (MCLG)	MAJOR SOURCES IN DRINKING WATER
Alkalinity, total (mg/l as CaCO3)	170	160 - 190	NA	NA	Runoff/leaching from natural deposits
Calcium (mg/l)	73	66 - 82	NA	NA	Runoff/leaching from natural deposits
Hardness, total (mg/l as CaCO3)	240	220 - 270	NA	NA	Runoff/leaching from natural deposits
Magnesium (mg/l)	13	12 - 16	NA	NA	Runoff/leaching from natural deposits
Perfluorobutanesulfonic Acid (ng/l)	7.5	ND - 11	500	NA	Industrial discharges
Perfluorodecanoic Acid (ng/l)	<4 **(c)**	ND - 4.3	NA	NA	Industrial discharges
Perfluoroheptanoic Acid (ng/l)	<4 **(c)**	ND - 4.9	NA	NA	Industrial discharges
Perfluorohexane Sulfonic Acid (ng/l)	6.3	5 - 7.7	NA	NA	Industrial discharges
Perfluorohexanoic Acid (ng/l)	<4 **(c)**	ND - 7.3	NA	NA	Industrial discharges
Perfluorononanoic Acid (ng/l)	<4 **(c)**	ND - 4.5	NA	NA	Industrial discharges
Perfluorooctane Sulfonic Acid (PFOS) (ng/l)	43	34 - 56	6.5	NA	Industrial discharges
Perfluorooctanoic Acid (PFOA) (ng/l)	11	ND - 17	5.1	NA	Industrial discharges
pH (standard unit)	7.5	7.3 - 7.7	NA	NA	Runoff/leaching from natural deposits
Potassium (mg/l)	4.2	3.8 - 4.7	NA	NA	Runoff/leaching from natural deposits
Sodium (mg/l)	55	48 - 60	NA	NA	Runoff/leaching from natural deposits

UNREGULATED CHEMICALS REQUIRING MONITORING TESTED IN GROUNDWATER

Tested in 2019

	GROUNDWATER		NL	PHG or (MCLG)
	AVERAGE	RANGE		
Bromide (µg/l)	170	120 - 280	NA	NA
Manganese (µg/l) **(h)**	19	0.41 - 37	SMCL = 50	NA
Total Organic Carbon (mg/l)	<1 **(c)**	ND - 1.5	NA	NA

UNREGULATED CHEMICALS REQUIRING MONITORING TESTED IN THE DISTRIBUTION SYSTEM

Tested in 2019

	DISTRIBUTION SYSTEM		NL	PHG or (MCLG)
	AVERAGE	RANGE		
Haloacetic acids (HAA5) (µg/l)	2.3	1.2 - 3.1	NA	NA
Haloacetic acids (HAA6Br) (µg/l)	3.5	1.7 - 4.8	NA	NA
Haloacetic acids (HAA9) (µg/l)	3.6	1.7 - 5.2	NA	NA

ABBREVIATIONS

pCi/l = picoCuries per liter
µmhos/cm = micromhos per centimeter
ND = constituent not detected at the reporting limit
mg/l = milligrams per liter or parts per million
µg/l = micrograms per liter or parts per billion
ng/l = nanograms per liter or parts per trillion
NTU = nephelometric turbidity units
NA = not applicable
NL = Notification Level

FOOTNOTES

(a) Thirty-six volatile organic chemicals were analyzed in 2020.
(b) California Public Health Goal (PHG). Other advisory level is the federal Maximum Contaminant Level Goal (MCLG).
(c) "<" means constituent detected but average is less than the reporting limit
(d) Running annual average used to calculate average and MCL compliance.
(e) Maximum Residual Disinfectant Level (MRDL)
(f) Maximum Residual Disinfectant Level Goal (MRDLG)
(g) In 2020, no school submitted a request to be sampled for lead.
(h) Manganese was included as part of the unregulated chemicals requiring monitoring.

DEFINITIONS

Maximum Contaminant Level (MCL) **:** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible.
Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.
Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
Primary Drinking Water Standard (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
Public Health Goal (PHG) : The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.
Regulatory Action Level (AL) **:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Notification Level (NL): An advisory level which, if exceeded, requires the drinking water system to notify the governing body of the local agency in which users of the drinking water reside (i.e. city council, board of directors, and county board of supervisors).

Appendix 8-1

Montebello Land and Water Company

Existing Water Shortage Contingency Plan

MONTEBELLO LAND AND WATER COMPANY
WATER SHORTAGE CONTINGENCY PLAN

I. Findings

A. The Urban Water Management Planning Act (Water Code section 10610 et seq. -- the "Act") requires that every urban supplier of water for municipal purposes to more than 3,000 customers, prepare an Urban Water Management Plan, the primary objective of which is to plan for the conservation and efficient use of water. The Montebello Land and Water Company (the "Company") has prepared and filed its Urban Water Management Plan with the California Department of Water Resources.

B. Section 10632 of the Act also requires urban suppliers of water to prepare a Water Shortage Contingency Plan. Since June 14, 2011 the Company has had in place such a Water Shortage Contingency Plan within its Urban Water Management Plan which relies on the City of Montebello (the "City"), pursuant to its Municipal Code Sec. 8.29, to declare water supply shortages and invoke mandatory water use reduction measures applicable within the Company's service area when necessary.

C. As a result of current statewide drought conditions, on July 15, 2014, the State Water Resources Control Board (SWRCB) adopted emergency regulation CCR, Title 23, section 865, among others, which became effective July 29, 2014, and which directly requires the Company to implement all requirements and actions of the stage of its water shortage contingency plan that imposes mandatory restrictions on outdoor irrigation of ornamental landscapes or turf with potable water.

D. Under Section 10652 of the Act, the California Environmental Quality Act does not apply to the preparation and adoption of a Water Shortage Contingency Plan or to the implementation of actions taken pursuant to such Water Shortage Contingency Plan.

E. Due to the City of Montebello's current failure to determine and declare a Level 1 Water Supply Shortage pursuant to Montebello Municipal Code §8.29.080(A), an act which would satisfy the Company's requirements under the SWRCB emergency regulations, the Board hereby determines that the Company must have the ability to independently declare water supply shortages as intended in its Urban Water Management Plan, and not to be reliant on the City of Montebello for such declarations.

F. The Board of Directors of the Company held a public hearing on September 9, 2014, regarding modifying the Company's Urban Water Management Plan in the manner required to be able to independently comply with SWRCB emergency regulation CCR, Title 23, section 865, among others.

II. Application.

A. The provisions of this Water Shortage Contingency Plan ("Plan") apply to the Company's shareholders and to any person using any potable water provided by the Company.

B. The provisions of this Plan do not apply to uses of water necessary to protect public health and safety or for essential government services, such as police, fire and other similar emergency services.

C. The provisions of this Plan do not apply to the use of recycled water, with the exception of Section III.A.

D. The provisions of this Plan do not apply to the use of water by commercial nurseries and commercial growers to sustain plants, trees, shrubs, crops or other vegetation intended for commercial sale.

III. Permanent water conservation requirements—Prohibition against waste.

The following water conservation requirements are effective at all times and are permanent. Violations of this section will be considered waste and an unreasonable use of water.

A. Limits on Watering Hours. Watering or irrigating of lawn, landscape or other vegetated area with potable water is prohibited between the hours of ten a.m. and one hour before sunset Pacific Standard Time on any day, except by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, or for very short periods of time for the express purpose of adjusting or repairing an irrigation system. Lawns or other irrigated areas shall not be watered more frequently than every other day. Odd-numbered street-addressed properties may water on odd-numbered dates. Even-numbered street-addressed properties may only do so on even-numbered dates. All irrigated areas may be watered on the 29th day of the month of February every fourth year or the 31st day of the month having thirty days. The provisions of this subsection shall not apply to restrict watering of newly seeded or reseeded lawns once a year, nor to prohibit drip irrigation systems.

B. Limit on Watering Duration. Watering or irrigating of lawn, landscape or other vegetated area with potable water using a landscape irrigation system or a watering device that is not continuously attended is limited to no more than fifteen minutes watering per day per station. This subsection does not apply to landscape irrigation systems that exclusively use very low-flow drip type irrigation systems when no emitter produces more than two gallons of water per hour or weather based controllers or stream rotor sprinklers that meet a seventy percent efficiency standard.

C. No Excessive Water Flow or Runoff. Watering or irrigating of any lawn, landscape or other vegetated area in a manner that causes or allows excessive water flow or runoff onto an adjoining property, or non-landscaped areas such as sidewalks, driveways, streets, alleys, gutters or ditches is prohibited.

D. No Washing Down Hard or Paved Surfaces. Washing down hard or paved surfaces, including but not limited to sidewalks, walkways, driveways, parking areas, tennis courts, patios or alleys, is prohibited except when necessary to alleviate safety or sanitary hazards, and then only by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off device, a low-volume, high-pressure cleaning machine equipped to recycle any water used, or a low-volume high-pressure water broom. Should the use of water for wash-down have to do with an immediate fire or sanitation hazard, written permission shall have been obtained from the City fire department, health department or building department.

E. Obligation to Fix Leaks, Breaks or Malfunctions. Excessive use, loss or escape of water through breaks, leaks or other malfunctions in the water user's plumbing or distribution system for any period of time after such escape of water should have reasonably been discovered and corrected and in no event more than seven days of receiving notice from the Company, is prohibited.

F. Recirculating Water Required for Water Fountains and Decorative Water Features. Operating a water fountain or other decorative water feature that does not use recirculated water is prohibited.

G. Limits on Washing Vehicles. Using water to wash or clean a vehicle, including but not limited to any automobile, truck, van, bus, motorcycle, boat or trailer, whether motorized or not is prohibited, except by use of a hand-held bucket or similar container or a hand-held hose equipped with a positive self-closing water shut-off nozzle or device. This subsection does not apply to any commercial car washing facility with an on-site water recycling system.

H. Drinking Water Served Upon Request Only. Eating or drinking establishments, including but not limited to restaurants, hotels, cafes, cafeterias, bars, or other public places where food or drinks are sold, served, or offered for sale, are prohibited from providing drinking water to any person unless expressly requested by that person or that person's guardian or custodian of care therefor.

I. Commercial Lodging Establishments Must Provide Guests Option to Decline Daily Linen Services. Hotels, motels and other commercial lodging establishments must provide customers the option of not having towels and linen laundered daily. Commercial lodging establishments must prominently display notice of this option in each bathroom using clear and easily understood English and Spanish languages and any other language commonly used by users of such establishments.

J. No Installation of Single Pass Cooling Systems. Installation of single pass cooling systems is prohibited in buildings requesting new water service.

K. No Installation of Non-recirculating Water Systems in Commercial Car Wash and Laundry Systems. Installation of non-recirculating water systems is prohibited in premises with new commercial conveyor car wash or new commercial laundry systems.

L. Restaurants Required to Use Water Conserving Dish Wash Spray Valves. Food preparation establishments, such as restaurants or cafes, are prohibited from using non-water conserving dish wash spray valves.

M. Commercial Car Wash Systems. All commercial car wash systems must have installed operational recirculating water systems, or must have secured a waiver of this requirement and/or an extension of time for installation from the City.

N. Construction meters used for landscape irrigation shall not be used between ten a.m. and one hour before sunset.

O. Filling or refilling of private swimming pools, spas, ponds and artificial lakes is prohibited between ten a.m. and one hour before sunset. Swimming pools and spas shall be equipped with covers to minimize evaporation and such covers shall be used not less than five days a week unless the facility is in use.

IV. Level 1 water supply shortage.

A. A level 1 water supply shortage exists when the Company determines, in its sole discretion, or a declaration of such a shortage is made by a Federal, State or local government agency with jurisdiction over the Company, that due to drought or other water supply conditions, a water supply shortage or threatened shortage exists and a consumer demand reduction is necessary to make more efficient use of water and appropriately respond to existing water conditions. Upon the declaration of a level 1 water supply shortage condition, the Company will implement the mandatory level 1 conservation measures identified in this section.

B. Additional Water Conservation Measures. In addition to the prohibited uses of water identified in Section III, the following water conservation requirements apply during a declared level 1 water supply shortage:

1. Limits on Watering Days. Watering or irrigating of lawn, landscape or other vegetated area with potable water is limited to not to exceed three days per week on a schedule established and posted by the Company. During the months of November through March, watering or irrigating of lawn, landscape or other vegetated area with potable water is limited to no more than one day per week on a schedule established and posted by the Company. This provision does not apply to landscape irrigation zones that exclusively use very low flow drip type irrigation systems when no emitter produces more than two gallons of water per hour. This provision also does not apply to watering or irrigating by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, or for very short periods of time for the express purpose of adjusting or repairing an irrigation system.

2. Obligation to Fix Leaks, Breaks or Malfunctions. All leaks, breaks; or other malfunctions in the water user's plumbing or distribution system must be repaired within seventy-two hours of receipt of written notification by the Company unless other arrangements are made with the Company. All leaks, breaks or malfunctions in the water purveyor's water system shall be repaired within seventy-two hours of the water purveyor becoming aware thereof.

V. Level 2 water supply shortage.

A. A level 2 water supply shortage exists when the Company determines, in its sole discretion, or a declaration of such a shortage is made by a Federal, State or local government agency with jurisdiction over the Company, that due to drought or other water supply conditions, a water supply shortage or threatened shortage exists and a consumer demand reduction is necessary to make more efficient use of water and appropriately respond to existing water conditions. Upon the declaration by the Company of a level 2 water supply shortage condition, the Company will implement the mandatory level 2 conservation measures identified in this section.

B. Additional Conservation Measures. In addition to the prohibited uses of water identified in Sections III and IV, the following additional water conservation requirements apply during a declared level 2 water supply shortage:

1. Watering Days. Watering or irrigating of lawn, landscape or other vegetated area with potable water is limited to not to exceed two days per week on a schedule established and posted by the Company. During the months of November through March, watering or irrigating of lawn, landscape or other vegetated area with potable water is limited to no more than one day per week on a schedule established and posted by the Company. This provision does not apply to landscape irrigation zones that exclusively use very low flow drip type irrigation systems when no emitter produces more than two gallons of water per hour. This provision also does not apply to watering or irrigating by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, or for very short periods of time for the express purpose of adjusting or repairing an irrigation system.

2. Obligation to Fix Leaks, Breaks or Malfunctions. All leaks, breaks, or other malfunctions in the water user's plumbing or distribution system must be repaired within forty-eight hours of receipt of written notification by the Company unless other arrangements are made with the Company. All leaks, breaks or malfunctions in the water purveyor's water system shall be repaired within forty-eight hours of the water purveyor becoming aware thereof.

3. Limits on Filling Ornamental Lakes or Ponds. Filling or re-filling of ornamental lakes or ponds is prohibited, except to the extent needed to sustain aquatic life, provided that such aquatic life are of significant value and have been actively managed within the water feature prior to declaration of a supply shortage level under this Plan.

4. Limits on Washing Vehicles. Using water to wash or clean a vehicle, including but not limited to, any automobile, truck, van, bus, motorcycle, boat or trailer, whether motorized or not, is prohibited except by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, by high pressure/low volume wash systems, or at a commercial car washing facility that utilizes a recirculating water system to capture or reuse water.

5. Limits on Filling Residential Swimming Pools and Spas. Re-filling of more than one foot of depth in a pool or spa and initial filling of residential swimming pools or outdoor spas with potable water is prohibited.

VI. Level 3 water supply shortage—Emergency condition.

A. A level 3 water supply shortage condition is also referred to as an "emergency" condition. A level 3 condition exists when the Company declares a water shortage emergency, or a declaration of such a water shortage emergency is made by a Federal, State or local government agency with jurisdiction over the Company, and notifies its residents and businesses that a significant reduction in consumer demand is necessary to maintain sufficient water supplies for public health and safety. Upon the declaration of a level 3 water supply shortage condition, the Company will implement the mandatory level 3 conservation measures identified in this section.

B. Additional Conservation Measures. In addition to the prohibited uses of water identified in Sections III, IV, and V, the following water conservation requirements apply during a declared level 3 water supply shortage emergency:

1. No Watering or Irrigating. Watering or irrigating of lawn, landscape or other vegetated area with potable water is prohibited. This restriction does not apply to the following categories of use, unless the Company has determined that recycled water is available and may be applied to the use :

a. Maintenance of vegetation, including trees and shrubs, that are watered using a hand-held bucket or similar container, hand-held hose equipped with a positive self-closing water shut-off nozzle or device;

b. Maintenance of existing landscape necessary for fire protection;

c. Maintenance of existing landscape for soil erosion control;

d. Maintenance of plant materials identified to be rare or essential to the wellbeing of protected species;

e. Maintenance of landscape within active public parks and playing fields, day care centers, golf course greens, and school grounds, provided that such irrigation does not exceed two days per week according to the schedule established in Section 5.29.070(B)(1) and time restrictions in Section 5.29.060 (A) and (B);

f. Actively irrigated environmental mitigation projects.

2. Obligation to Fix Leaks, Breaks or Malfunctions. All leaks, breaks, or other malfunctions in the water user's plumbing or distribution system must be repaired within twenty-four hours of notification by the Company unless other arrangements are made with the Company. The same time restrictions shall apply to water systems of water purveyors.

a. No New Potable Water Service. Upon declaration of a level 3 water supply shortage emergency condition by the Company, no new potable water service shall be provided, no new temporary meters or permanent meters are to be provided, and no statements of immediate ability to serve or provide potable water service (such as, will-serve letters, certificates, or letters of availability) are to be issued, except under the following circumstances :

(i) A valid, unexpired building permit has been issued for the project; or

(ii) The project is necessary to protect the public health, safety, and welfare; or

(iii) The applicant provides substantial evidence of an enforceable commitment that water demands for the project will be offset prior to the provision of a new water meter(s) to the satisfaction of the Company.

This provision does not preclude the resetting or turn-on of meters to provide continuation of water service or the restoration of service that has been interrupted for a period of one year or less.

b. Limits on Building Permits. The Company will request the City to limit or withhold the issuance of building permits which require new or expanded water service, except to protect the public health, safety and welfare, or in cases which meet the City's adopted water conservation offset requirements.

3. Discontinue Service. The Company, in its sole discretion, or pursuant to a Federal, State or local government agency order with jurisdiction over

the Company, may discontinue service to a water user who willfully violates provisions of this section.

VII. Procedures for determination/notification of water supply shortage.

A. Declaration and Notification of Water Supply Shortage. The existence of level 1, level 2 or level 3 water supply shortage conditions may be declared by resolution of the Board of Directors adopted at a regular or special meeting held in accordance with state law. The mandatory conservation requirements applicable to level 1, level 2 or level 3 conditions will take effect on the tenth day after the date the water supply shortage level is declared. Within five days following the declaration of the shortage level, the Company shall publish a copy of the resolution in a newspaper used for publication of official notices covering its service area. If the Company activates a water allocation process, it shall provide notice of the activation by including it in the regular billing statement or by any other mailing to the address to which the Company customarily mails the billing statement for fees or charges for ongoing water service. A water allocation will be effective on the fifth day following the date of mailing or at such later date as specified in the notice.

VIII. Hardship waiver.

A. Undue and Disproportionate Hardship. If, due to unique circumstances, a specific requirement of this Plan would result in undue hardship to a person using water or to property upon which water is used, that is disproportionate to the impacts to water users generally or to similar property or classes of water users, then the person may apply to the Company for a waiver to the requirements as provided in this section.

B. Written Finding. The waiver may be granted or conditionally granted by the Company only upon a written finding by the Company of the existence of facts demonstrating an undue hardship to a person using water or to property upon which water is used, that is disproportionate to the impacts to water users generally or to similar property or classes of water use due to specific and unique circumstances of the user or the user's property.

1. Application. Application for a waiver must be on a form prescribed by the Company and accompanied by a non-refundable processing fee in an amount set by a Board of Directors resolution.

2. Supporting Documentation. The application must be accompanied by photographs, maps, drawings, and other pertinent information, including a written statement of the applicant as to the reasons for the application.

3. Required Findings for Waiver. An application for a waiver will be denied unless the Company `finds, based on the information provided in the application, supporting documents, or such additional information as may

be requested, and on water use information for the property as shown by the records of the applicant or its agent, all of the following:

a. That the waiver does not constitute a grant of special privilege inconsistent with the limitations upon other properties and businesses;

b. That because of special circumstances applicable to the property or its use, the strict application of this Plan would have a disproportionate impact on the property or use that exceeds the impacts to properties and businesses generally;

c. That the authorizing of such waiver will not be of substantial detriment to adjacent properties, and will not materially affect the ability of the Company to effectuate the purpose of this Plan and will not be detrimental to the public interest;

d. That the condition or situation of the subject property or the intended use of the property for which the waiver is sought is not common, recurrent or general in nature; and

e. That the water user has demonstrated that he or she, prior to or after adoption of this Plan, has taken effective measures for purposes of water conservation.

4. Approval Authority. The General Manager must act upon any completed application no later than ten days after submittal and may approve, conditionally approve, or deny the waiver. The applicant requesting the waiver must be promptly notified in writing of any action taken. Unless specified otherwise at the time a waiver is approved, the waiver will apply to the subject property during the period of the mandatory water supply shortage condition. The decision of the General Manager will be final, except that the applicant may file a written appeal to the Board of Directors. The Board of Directors, after due process, may grant, deny or grant with conditions, the appeal.

IX. Penalties and violations.

A. Penalties. Penalties for failure to comply with any provisions of the Plan are as follows:

1. First Violation. The Company will issue a written warning and deliver a copy of this Plan to the shareholder of record for the property on which the violation occurred by United States Postal Service first class (USPS) mail.

2. Second Violation. A second violation within the following twelve calendar months of the first violation will subject the shareholder's account for the property on which the violation occurred to a penalty assessment not to

exceed one hundred dollars, which will be subject to collection by the Company as are all other rates, charges and assessments.

3. Third Violation. A third violation within the following twelve calendar months of the first violation will subject the shareholder's account for the property on which the violation occurred to a penalty assessment not to exceed two hundred fifty dollars, which will be subject to collection by the Company as are all other rates, charges and assessments.

4. Fourth and Subsequent Violations. A fourth violation in the following twelve calendar months of the first violation will subject the shareholder's account for the property on which the violation occurred to a penalty assessment not to exceed five hundred dollars, which will be subject to collection by the Company as are all other rates, charges and assessments.

    a. Water Flow Restrictor. In addition to any penalty assessments, the Company may install a water flow restrictor device of approximately one gallon per minute capacity for service pipe up to one and one-half inch size and comparatively sized restrictors for larger services after issuance by the Company of a written notice of intent to install a flow restrictor for a minimum of forty-eight hours.

5. Discontinuing Service. In addition to any penalty assessments and the installation of a water flow restrictor, the Company may disconnect a shareholder's water service for willful violations of mandatory restrictions in this Plan.

B. Cost of Flow Restrictor and Disconnecting Service. A person or entity that violates this Plan is responsible for payment of the water purveyor's charges for installing and/or removing any flow restricting device and for disconnecting and/or reconnecting service per the water purveyor's schedule of charges then in effect. The charge for installing and/or removing any flow restricting device must be paid to the water purveyor before the device is removed. Nonpayment will be subject to the same remedies as nonpayment of a regular water bill.

C. Separate Offenses. Each day that a violation of this Plan occurs is a separate offense.

D. Notice and Hearing.

1. The Company will issue a notice of violation by USPS first class mail or personal delivery at least ten days before taking enforcement action. Such notice must describe the violation and the date by which corrective action must be taken. A shareholder may appeal the notice of violation by filing a written notice of appeal with the Company no later than the close of business on the day before the date scheduled for enforcement action. Any notice of violation not timely appealed will be final. Upon receipt of a

timely appeal, a hearing on the appeal will be scheduled, and the Company will mail by USPS first class service written notice of the hearing date to the shareholder at least ten days before the date of the hearing.

2. Pending receipt of a written appeal or pending a hearing pursuant to an appeal, the Company may take appropriate steps to prevent the unauthorized use of water as appropriate to the nature and extent of the violations and the current declared water level condition.

Appendix 8-2

Montebello Land and Water Company

Updated Water Shortage Contingency Plan

MONTEBELLO LAND AND WATER COMPANY

WATER SHORTAGE CONTINGENCY PLAN

MONTEBELLO LAND AND WATER COMPANY
344 East Madison Avenue
Montebello, CA 90640

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SECTION 1
WATER SERVICE RELIABILITY AND DROUGHT RISK ASSESSMENT

1-1 Water Code

Water Code Section 10632(a)(1)

The analysis of water supply reliability conducted pursuant to Section 10635.

California Water Code (CWC) §10635 requires every urban water supplier to include as part of the Urban Water Management Plan (UWMP) an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry years. The supply and demand assessment is a comparison of the total water supply sources available to the long-term projected water use over the next 20 years, in five year increments for a normal, single dry water year, and a drought lasting five consecutive years.

In addition, new requirements for the 2020 UWMP include a Drought Risk Assessment (DRA). The DRA includes the following:

1. A description of the data, methodology, and basis for one or more supply shortage conditions
2. A determination of the reliability of each source of supply under a variety of water shortage conditions.
3. A comparison of the total water supply sources available to the water supplier with the total projected water use for the drought period.
4. 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

1-2 Water Service Reliability Assessment

1-2.1 Constraints on Water Sources

Montebello Land and Water Company (Company) is currently, and plans to remain, completely dependent on groundwater from the Central Basin for all potable supply. And Central Basin replenishment is also now completely locally sustainable. For this reason, groundwater supply reliability is the only consideration for the Company's overall supply reliability. In addition to potable supplies, The Company's supply portfolio includes a small quantity of non-potable recycled water. Although this quantity is small in relation to total supplies, the reliability of this resource is also considered.

1-2.1.1 Groundwater Supplies

Groundwater supplies come from Central Basin which was adjudicated in 1965 due to declining water levels. In the years following adjudication, groundwater levels rebounded and have been maintained by active recharge and annual limits to groundwater pumping by each party to the adjudication. The Central Basin Watermaster is tasked with ensuring compliance with the Judgment and preventing future overdraft conditions.

Groundwater elevation and quality in Central Basin has been monitored by the WRD for over 60 years. Monitoring data is compiled into annual reports, providing a comprehensive overview of the status of the basin. The most recently produced annual report is the *Regional Groundwater Monitoring Report, Water Year 2019-2020*.

In water year 2019-2020, the Central Basin water levels varied across the basin. In the northern portion of the basin, the area between the Los Angeles and Montebello Forebays, water levels have decreased by as much as about three feet from the prior year. Along the eastern border of the basin, water levels range from nearly three feet lower in the north to more than eight feet higher in the south than they were in fall 2019. Across the southern and western portions of the basin, water levels range from nearly five feet higher in the south to relatively unchanged in the west compared to the prior year. Monitoring completed by the Company at its wells indicates that locally, water levels varied by a maximum of 8 feet from 2019 to 2020.

In addition to monitoring, the Water Replenishment District of Southern California (WRD) replenishes the Central Basin with a combination of local storm water and recycled water. The completion of the Albert Robles Center for Water Recycling and Environmental Learning (ARC) in 2019 enabled WRD to be completely locally sustainable, eliminating imported water as a source of replenishment. The Company does not anticipate that legal or quantity issues will constrain the groundwater supply in the future.

WRD reports the groundwater quality in Central Basin is generally of "good quality and is suitable for use by the pumpers in the District, the stakeholders, and the public. Groundwater from localized areas with marginal to poor water quality can still be utilized but may require treatment prior to being used as a potable source". Eleven chemical compounds were used to summarize the overall water quality as follows: Total Dissolved Solids (TDS), Iron, Manganese, Chloride, Nitrate, TCE, PCE, Arsenic, Perchlorate, Hexavalent Chromium, and 1,4-Dioxane. [WRD, 2019]

Beginning in water year 2018-2019 and ending in water year 2019-2020, WRD completed a District-wide assessment for the presence of PFAS constituents in WRD nested monitoring wells and production wells. PFOS and PFOA detections in Central Basin are generally restricted to the vicinity of the Montebello Forebay. They occur within the Montebello Forebay, immediately adjacent and to its west, as well as downgradient along the Los Angeles and San Gabriel Rivers.

According to the Company's 2020 Consumer Confidence Report, perfluorooctane sulfonic acid (PFOS) levels ranged from 34 to 56 ng/l and perfluorooctanic acid (PFOA) levels ranged from non-detect to 17 ng/l at the Company wells. These PFOS and PFOA levels are above the notification levels of 6.5 and 5.1 ng/l, respectively. The Company is currently in the process of designing a central treatment facilities for PFOS and PFOA to meet the State and Federal regulations. Groundwater quality is not expected to constrain supply reliability in the future.

Sea water intrusion in the Alamitos Gap near the mouth of the San Gabriel River poses a threat to the groundwater in the basin. The Alamitos Gap Barrier Project, operated by the Los Angeles County Department of Public Works (LADPW), is made up of 43 injection wells that are designed to prevent sea water intrusion into the basin by creating a groundwater pressure ridge. The project also includes 220 observation wells used to monitor groundwater levels and quality. [WRD, 2018]

1-2.1.2 Recycled Water Supplies

The Company receives recycled water from CBMWD for a limited number of connections. The Company does not plan to significantly increase recycled water use in its service area. Primarily, the existing recycled water connections will be maintained. Recycled water exhibits less variability than other supply sources and it is dependent on wastewater generation and not precipitation or other climatological factors. As recycled water is

not limited by hydrologic variation, it is considered a nearly 100 percent reliable, drought resistant supply. Typical water quality concerns with recycled water include salinity, nutrients, and pharmaceuticals and personal care products. Water quality issues with recycled water are less significant than other sources that are used for potable purposes. All recycled water distributed in the Company's service area is treated to tertiary standards and is not expected to impact utilization of this water supply for non-potable uses in the future.

1-2.2 Year Type Characterization

The Company has transitioned to being completely reliant on groundwater to meet potable water demands in its service area and anticipates using groundwater as its sole potable supply source into the foreseeable future. For purposes of reliability planning, hydrologic impacts to local groundwater supply is the main supply source considered. Since groundwater supply is partially dependent on local runoff1, rainfall data was analyzed to determine the average, single dry, and 5-consecutive year drought time periods.

Historical rainfall data from water year 2001-2002 through 2018-2019 is shown in Table 1-1. The average rainfall is 13.05 inches. Water year 2007-2008 experienced 14.67 inches of rainfall, which is the closest to the historical average and therefore considered an "average" year. Water year 2006-2007 experienced 4.40 inches of rainfall, which was the minimum amount and therefore considered the "singe dry" year. The 5-consecutive year drought is defined as the driest 5-year historical sequence experienced. Water year 2011-2012 through 2015-2016 is considered the "5-consecutive year drought" period with the lowest amount of total rainfall (40.21 inches) over 5 years.

Table 1-1
Rainfall Data

Water Year (Oct. 1-Sept. 30)	Total Rainfall (in)[1]	% of Average Rainfall	5-Year Total Rainfall (in)	Year Type
2000-2001	14.67	112.4%		
2001-2002	4.65	35.6%		
2002-2003	17.60	134.9%		
2003-2004	11.38	87.2%		
2004-2005	32.70	250.6%	81.00	
2005-2006	13.28	101.8%	79.61	
2006-2007	4.40	33.7%	79.36	Single Dry
2007-2008	14.67	112.4%	76.43	Average
2008-2009	11.15	85.4%	76.20	
2009-2010	17.03	130.5%	60.53	
2010-2011	20.26	155.3%	67.51	
2011-2012	10.81	82.8%	73.92	5-Consecutive Year Drought
2012-2013	8.13	62.3%	67.38	
2013-2014	4.83	37.0%	61.06	
2014-2015	9.26	71.0%	53.29	
2015-2016	7.18	55.0%	40.21	
2016-2017	20.70	158.6%	50.10	
2017-2018	4.63	35.5%	46.60	
2018-2019	20.61	157.9%	67.21	
Minimum	**4.40**		**40.21**	
Average	**13.05**		**65.36**	
Maximum	**32.70**		**81.00**	

[1] *Rainfall data at Whittier Narrows Dam (LADWP Station 1114B)*

The basis of water year data used for the water service reliability assessment is provided in Table 1-2. Based on the historical rainfall data shown in Table 1-1, the Company's selected 2008 as the "average" year, 2007 as the "singe dry" year, and 2012 through 2016 as the "5-consecutive year drought" period.

Table 1-2
Basis of Water Year Data

Submittal Table 7-1 Retail: Basis of Water Year Data (Reliability Assessment)			
		Available Supplies if Year Type Repeats	
		☐ Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____	
		☑ Quantification of available supplies is provided in this table as either volume only, percent only, or both.	
Year Type	Base Year	Volume Available *	% of Average Supply
Average Year	2008	3,648	100%
Single-Dry Year	2007	3,686	101%
Consecutive Dry Years 1st Year	2012	3,370	92%
Consecutive Dry Years 2nd Year	2013	3,468	95%
Consecutive Dry Years 3rd Year	2014	3,525	97%
Consecutive Dry Years 4th Year	2015	3,137	86%
Consecutive Dry Years 5th Year	2016	2,919	80%
**Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.*			
NOTES: Volume Available = Actual Production (AF) for Base Year			

1-2.3 Water Service Reliability

The "average" year is interchangeable with "normal" year. The comparison of supply and demand in normal water years is shown in Table 1-3. The comparison is provided for potable water only since the Company only provides potable water service to its customers. In a normal water year, the Company anticipates having enough supply to meet projected demands for years 2025 through 2045, with an average surplus of 1,321 AF per year.

Table 1-3
Normal Year Supply and Demand Comparison

Submittal Table 7-2 Retail: Normal Year Supply and Demand Comparison					
	2025	2030	2035	2040	2045 *(Opt)*
Supply totals	4,379	4,379	4,379	4,379	4,379
Demand totals	2,999	3,028	3,058	3,087	3,117
Difference	1,380	1,351	1,321	1,292	1,262
NOTES:					

In all future singe dry year scenarios, the Company anticipates having the same volume of water available to it as is available under normal year conditions. Groundwater replenishment varies with hydrology and access to

recharge supplies, but the ability to extract groundwater is more a function of long-term average recharge and is less subject to hydrologic variability from year to year. Additionally, WRD's ARC facility and other replenishment efforts to increase recharge in wet years to allow more storage and extraction in dry years will further increase the reliability of the Company's water supply in dry years. As evidence, in 2007, the year selected to represent single dry year hydrology, groundwater yield was unaffected by the drought and the Company had access to enough water supply to satisfy all demands. In a single dry year, the Company anticipates having enough supply to meet projected demands for years 2025 through 2045, with an average surplus of 604 AF per year.

Table 1-4
Single Dry Year Supply and Demand Comparison

OPTIONAL Table 7-3 Retail: Single Dry Year Supply and Demand Comparison - Potable					
	2025	**2030**	**2035**	**2040**	**2045 (Opt)**
Supply totals*	4,379	4,379	4,379	4,379	4,379
Demand totals*	3,716	3,745	3,775	3,804	3,834
Difference	663	634	604	575	545
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*					
NOTES: Demand of 3,686 AF from single dry year (2006-2007) was increased by the amount of water demand expected from an increase in population for each of the future years.					

Under the multiple dry year scenario (5-consecutive year drought conditions), based on hydrologic conditions similar to the 2012-2016 period, the Company also anticipates having enough water supplies to meet projected demands as shown in Table 1-5.

- The first dry year was assumed to be similar to 2011-2012 with an adjustment for future demands due to population increase. The 2011-2012 demand was 3,370 AF.
- The second dry year demand was assumed to be similar to 2012-2013 with an adjustment for future demands due to a population increase. The 2012-2013 demand was 3,468 AF. The increase in demand is about 2.9 percent.
- The third dry year demand was assumed to be similar to 2013-2014 with an adjustment for future demands due to a population increase. The 2013-2014 demand was 3,525 AF. The increase in demand is about 1.6 percent from the previous year.
- Due to the establishment of a Level 1 Water Shortage Condition and the implementation of drought messaging in 2014, the Company's actual demands decreased by about 11 percent in 2014-2015 and another 6.9 percent in 2015-2016. Since the Company now has permanent water conservation requirements in place, the water demands are not expected to decrease as significantly when a Level 1 Water Shortage Condition is implemented again. Therefore, the fourth dry year demand was assumed to drop by 2.5 percent from the prior year with an adjustment for future demands due to a population increase.
- In the fifth dry year, demands were assumed to decrease by 2.5 percent from the prior year with an adjustment for future demands due to population increase.

Table 1-5
Multiple Dry Years Supply and Demand Comparison

OPTIONAL Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison - Potable						
		2025*	2030*	2035*	2040*	2045* (Opt)
First year	Supply totals	4,379	4,379	4,379	4,379	4,379
	Demand totals	3,400	3,429	3,459	3,488	3,518
	Difference	979	950	920	891	861
Second year	Supply totals	4,379	4,379	4,379	4,379	4,379
	Demand totals	3,498	3,527	3,557	3,586	3,616
	Difference	881	852	822	793	763
Third year	Supply totals	4,379	4,379	4,379	4,379	4,379
	Demand totals	3,555	3,584	3,614	3,643	3,673
	Difference	824	795	765	736	706
Fourth year	Supply totals	4,379	4,379	4,379	4,379	4,379
	Demand totals	3,439	3,469	3,498	3,528	3,557
	Difference	940	910	881	851	822
Fifth year	Supply totals	4,379	4,379	4,379	4,379	4,379
	Demand totals	3,355	3,385	3,414	3,444	3,473
	Difference	1,024	994	965	935	906
***Units of measure (AF, CCF, MG)** must remain consistent throughout the UWMP as reported in Table 2-3.*						
NOTES: Demands experienced in 2011-2012 through 2013-2014 were used for the 1st through the 3rd dry year. Demands for 2014-2015 and 2015-2016 were assumed to be 2.5% lower than the prior year. All demands were increased by the amount of water demand expected from an increase in population for each of the future years.						

1-2.4 Description of Management Tools and Options

The Company is completely reliant on local supplies through the acquisition of leased groundwater rights, pumping credits, and implementation of an ongoing rehabilitation and improvement program. The Company relies on connections with neighboring agencies for emergency supply.

The Company plans to maintain the reliable production of groundwater supplies by refurbishing and improving production at older wells and drilling additional wells. New wells will replace old wells with less capacity, but would not add additional supply.

1-3 Drought Risk Assessment

A new requirement of the 2020 UWMP is the drought risk assessment [CWC §10635(b)]. The DRA evaluation is required so that a water supplier can contemplate management of their water supplies during stressed hydrologic conditions in relation to variations in customer water use. Most importantly, it provides the water supplier an opportunity to evaluate the functionality of its Water Shortage Contingency Plan (WSCP) shortage response actions and understand the degree of response that may be necessary as it relates to managing water supplies. The evaluation can help identify undesired risks and allow proactive steps to be taken prior to the next actual drought period lasting at least five consecutive years.

The drought risk assessment (DRA) must include a description of the following:

1. Data and methods used
2. Basis for the supply shortage conditions
3. Determination of the reliability of each source
4. Comparison of total water supplies and uses during the drought
5. Consideration of historical drought hydrology, climate change conditions, regulatory changes and other locally applicable criteria

1-3.1 Data and Methods

The DRA evaluation is supposed to be based on the five driest consecutive years on record, which occurred from 2012 through 2016. Per WRD's annual reports, the Company has averaged a lease amount of 1,670 AF over the last 20 years. The average amount of leases over the last five years has reduced to about 900 AF.

For the 2020 UWMP, the "reasonably available volume" of supply was calculated by adding the Company's APA, an average lease amount of 1,670 AF and an average carryover amount of 880 AF. For the DRA evaluation, the average lease amount from the last five years was utilized assuming that supply availability may be diminished during a drought period.

The demands are based on production records. In 2020, the Company provided 2,940 AF of water to its customers. Using the 2020 population of 27,111, the water use per person is calculated to be 96.8 gpcd. Projected demands are based on 96.8 gpcd and the projected population of the future year. The potable water demand projected for 2025 is 2,999 AF.

1-3.2 Water Source Reliability

The Company has transitioned to being completely reliant on groundwater to meet potable water demands in its service area and anticipates using groundwater as its sole potable supply source into the foreseeable future. The Company works with neighboring water agencies to ensure enough groundwater supply is available either through its own pumping rights, or by leasing or purchasing additional rights, to maintain local supply reliability. The Company relies on connections with neighboring agencies in the event of an emergency.

The Company coordinates with other local water agencies to lease and purchase additional groundwater rights to satisfy annual demand. Additionally, the Company works with its wholesaler, CBMWD, to reduce potable demands through implementation of demand management measures (DMMs) such as rebates for water efficient appliances and providing educational programs for the Company's customers. Continued collaboration with water agencies will support the Company's effective use of local groundwater and maintain imported water independence in the future.

1-3.3 Water Supply and Use Comparison

The five-year DRA analysis is shown in Table 1-6. As previously mentioned, the Company demands in 2025 are projected to be 2,999 AF. The water use increase was assumed to increase at a linear rate from 2021 to 2025.

The five-year DRA assumes that the first dry year is 2021. The total groundwater rights for 2020-2021 is 3,803 AF. This value was assumed for 2021 in the DRA. The surplus is calculated to be 857 AF.

The total groundwater available for 2022 is calculated as shown below. The minimum lease amount was assumed. The surplus is calculated to be 857 AF.

2022 Total Groundwater Available = 1,829 AF (APA)
+ 900 AF (Minimum Leases)
+ 857 AF (Carryover from 2021)
= 3,586 AF

The total groundwater available for 2023 is calculated as shown below. The average lease amount from the last five years was assumed. The surplus is calculated to be 634 AF.

2023 Total Groundwater Available = 1,829 AF (APA)
+ 900 AF (Minimum Leases)
+ 634 AF (Carryover from 2022)
= 3,363 AF

The total groundwater available for 2024 is calculated as shown below. The average lease amount from the last five years was assumed. The surplus is calculated to be 171 AF.

2024 Total Groundwater Available = 1,829 AF (APA)
+ 900 AF (Minimum Leases)
+ 406 AF (Carryover from 2023)
= 3,135 AF

The total groundwater available for 2025 is calculated as shown below. The average lease amount from the last five years was assumed. The deficit is calculated to be 241 AF. This deficit would require about 8 percent reduction in demand which could be achieved by increasing water conservation education and/or declaring a Stage 1 Water Shortage Condition (per Section 4) and/or an increase of leases.

2025 Total Groundwater Available = 1,829 AF (APA)
+ 900 AF (Minimum Leases)
+ 171 AF (Carryover from 2024)
= 2,729 AF

Table 1-6
Five-Year Drought Risk Assessment

OPTIONAL Table 7-5 Five-year Drought Risk Assessment Tables to address Water Code Section 10635(b) - Potable	
2021	**Total**
Total Water Use - *Potable*	2,946
Total Supplies - *Potable*	3,803
Surplus/Shortfall w/o WSCP Action	857
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	857
Resulting % Use Reduction from WSCP action	0%
2022	**Total**
Total Water Use [Use Worksheet]	2,952
Total Supplies [Supply Worksheet]	3,586
Surplus/Shortfall w/o WSCP Action	634
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	634
Resulting % Use Reduction from WSCP action	0%
2023	**Total**
Total Water Use [Use Worksheet]	2,958
Total Supplies [Supply Worksheet]	3,363
Surplus/Shortfall w/o WSCP Action	405
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	405
Resulting % Use Reduction from WSCP action	0%
2024	**Total**
Total Water Use [Use Worksheet]	2,964
Total Supplies [Supply Worksheet]	3,135
Surplus/Shortfall w/o WSCP Action	171
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	171
Resulting % Use Reduction from WSCP action	0%

Table 1-6 (continued)
Five-Year Drought Risk Assessment

OPTIONAL Table 7-5 Five-year Drought Risk Assessment Tables to address Water Code Section 10635(b) - Potable	
2025	**Total**
Total Water Use [Use Worksheet]	2,970
Total Supplies [Supply Worksheet]	2,729
Surplus/Shortfall w/o WSCP Action	(241)
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	241
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	8%

1-4 Climate Change

The 2013 Integrated Regional Water Management (IRWM) Plan, precipitation in the Greater Los Angeles County (GLAC) Region is expected to decrease by 2 to 5 inches throughout the South Coast of California with the most extreme reductions taking place in the higher elevations. This could result in a decrease in local groundwater supplies. Fortunately, WRD took the initiative and completed the construction of the ARC so that 21,000 AFY of advanced treated water can be used to replenish the Central Basin. This has ended WRD's reliance on imported water for groundwater replenishment as well as significantly reducing the need for local runoff for replenishment. In 2019-2020, the amount of water contributing to the replenishment of the Central Basin was 35,447 AF, down from 81,531 AF in the previous year. A significant reduction in supply due to climate change is not expected over the 25-year planning horizon.

Climate change may not significantly reduce supply in Central Basin, but demands in the GLAC Region are predicted to increase due to increased temperatures, especially because potable water is still used for irrigation purposes. This in turn could place a larger demand on the groundwater supplies that are available. In order to account for this possibility, the Company's annual lease amount was reduced from 1,670 AF to 900 AF assuming less water will be available to lease. This caused a deficit in 2025 which may trigger the declaration of a Stage 1 Water Shortage Condition during that year.

SECTION 2
ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT PROCEDURES

2-1 General

Beginning July 1, 2022, water suppliers will be required to prepare an annual water supply and demand assessment and submit an Annual Water Shortage Assessment Report (AWSAR) to the California Department of Water Resources (DWR). The AWSAR will be due July 1st each year as required by Water Code Section 10632.1. The annual assessment and associated reporting to be conducted are detailed in this section of the WSCP.

2-2 Water Code

Water Code Section 10632 (a)(2)

The procedures used in conducting an annual water supply and demand assessment that include, at a minimum, both of the following:

(A) The written decision-making process that an urban water supplier will use each year to determine its water supply reliability.

(i) The key data inputs and assessment methodology used to evaluate the urban water supplier's water supply reliability for the current year and one dry year, including all of the following:

(ii) Current year unconstrained demand, considering weather, growth, and other influencing factors, such as policies to manage current supplies to meet demand objectives in future years, as applicable.

(iii) Existing infrastructure capabilities and plausible constraints.

(iv) A defined set of locally applicable evaluation criteria that are consistently relied upon for each annual water supply and demand assessment.

(v) A description and quantification of each source of supply.

Water Code Section 10632.1

An urban water supplier shall conduct an annual water supply and demand assessment pursuant to subdivision (a) of Section 10632 and, on or before July 1 of each year, submit an annual water shortage assessment report to the department with information for anticipated shortage, triggered shortage response actions, compliance and enforcement actions, and communication actions consistent with the supplier's water shortage contingency plan. An 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 or each year, whichever is later.

2-3 Decision-Making Process

The following is the Company's written decision making process, describing the functional steps for determining water supply reliability every year.

The General Manager shall be responsible for ensuring that the annual water supply and demand assessment is completed and the AWSAR is submitted to DWR each year by July 1st.

The Board of Directors is responsible for declaring a water shortage through the adoption of a resolution.

The general timeline for completing and approving the AWSAR is as follows:

1. January – Gather data needed to assess supply and demands for upcoming year. Analyze data and prepare preliminary results of supply and demand assessment
2. February – Submit and present preliminary supply and demand report to the Board of Directors
3. March – Finalize assessment and present final AWSAR to the Board of Directors with a request that the Board vote on the findings and appropriately trigger any recommendations for specific shortage response actions resulting from the assessment.
4. April/May – Activate Shortage Response Actions, seek supplemental supplies (leases), finalize the AWSAR
5. June – Finalize supplemental supply agreements (leases)
6. July 1st – Submit finalized AWSAR to DWR

2-4 Key Data Inputs and Methodology

2-4.1 General Evaluation Criteria

The Company's supply and demand assessment will basically calculate the available supply for the upcoming year and the estimated demands for the upcoming year. The typically acquired water leases will be assumed when initially calculating the available supply. If it is determined that there will not be enough supply to meet the estimated demands for the upcoming year, the Company will pursue additional leases.

The Company will maintain a spreadsheet that tracks monthly production for a minimum of five years prior to the assessment year. Annual production, supply, billing data and rainfall will also be tracked in a spreadsheet.

A preliminary assessment will be conducted at the beginning of each year. This assessment will be updated and refined as data becomes available to complete the information input for the previous fiscal year.

2-4.2 Upcoming Year Available Water Supply

The Company's water supply is entirely groundwater from the Central Groundwater Basin. The total amount of groundwater produced from all wells is tracked monthly by the Company. This information will be utilized in determining the historical groundwater extractions as well as predicting the upcoming year (i.e. upcoming fiscal year) supply needs.

The upcoming year available water supply will be based on the Company's Annual Pumping Allocation (APA), normal carryover, storage balance, and water leases in the Central Groundwater Basin. The Company currently has an APA of 1,829 AF.

The Central Basin Watermaster publishes an annual report summarizing information on groundwater extractions, storage accounts, use of imported water and recycled water, replenishment operations, and the budget and finances of the Central Basin Watermaster for each administrative year (July 1 to June 30). This annual report provides the Company's total rights for the fiscal year, which includes the APA, net carryover from the previous year, and leases.

In 2020-2021, the Company's total water right was 3,802.78 AF, made up of the following components:

1. APA = 1,829 AF
2. Total Carryover from 2019-2020 = 789.28 AF
3. Leases = 1,184.50 AF

In order for the Company to calculate the supply for the upcoming fiscal year, an assumption has to be made for the net carryover. This can be done by estimating the total water extractions for the upcoming fiscal year and subtracting it from the total rights. If the water supply and demand assessment is conducted in January each year, the demands for January through June will need to be estimated. This will be done by using historical monthly ratios of water use as shown in Table 2-1.

The known system demands for July 2020 through December 2020 are shown in Table 2-1. The total demand for these nine months was 1,492 AF. It is assumed that this is 53.08 percent of the total fiscal year (sum of historical average monthly ratio from July through March). The total system demand for FY 2020-2021 is therefore calculated to be 2,811 AF (1,492/0.5308). The system demands for January 2021 through June 2021 are estimated using the "Historical Average Monthly Ratio" times the total estimated system demand for FY 2020-2021 or 2,811 AF. This is the system demand that will be used to determine the carryover for 2020-2021.

Carryover for 2020-2021 = (Water Rights for 2020-2021) – (Estimated Total Production for 2020-2021)

= 3,802.78 AF – 2,811 AF

= 991.78 AF

Once the carryover for the upcoming year is known, the projected supply (i.e. water rights) can be calculated as follows:

Water Rights for 2021-2022 = APA + Carryover from 2020-2021 + Leases for 2021-2022

= 1,829 AF + 991.78 AF + 1,184.50 AF

= 4,005.28 AF

Each year, this aforementioned calculations will be made to estimate the Company's water rights or water supply for the upcoming fiscal year. Initially, the Company might assume that they will acquire the same amount of leases as the previous year. Then, it can be evaluated whether or not the lease amount should be increased or decreased at all. Typically, the Company likes to have water rights that are about 700 – 1,500 AF per year above what is expected to be produced to serve water demanded by its customers.

Table 2-1
Historical Monthly Water Use Ratios

Month	Total Production 2015-2016 AF	2016-2017 AF	2017-2018 AF	2018-2019 AF	2019-2020 AF	Historical Monthly Average AF	Historical Average Monthly Ratio	Total Production 2020-2021 AF
July	272	283	287	301	280	285	0.0964	259
August	277	282	290	299	286	287	0.0972	275
September	258	259	271	265	268	264	0.0895	258
October	261	257	271	269	263	264	0.0895	251
November	241	233	247	247	240	241	0.0818	228
December	229	220	243	221	215	226	0.0764	220
January	209	207	232	220	217	217	0.0735	206
February	218	192	219	195	224	210	0.0710	199
March	224	241	219	220	212	223	0.0756	212
April	230	249	254	236	188	231	0.0784	220
May	243	264	262	241	225	247	0.0837	234
June	257	270	265	254	239	257	0.0871	244
Total	**2,919**	**2,957**	**3,061**	**2,969**	**2,857**	**2,952**	**1.0000**	
Rainfall (in)	**7.18**	**20.70**	**4.63**	**20.61**				

**Estimated based on historical average monthly ratio*

Total for January 2020 - January 2021 **1,492**

Estimated Total for 2020-2021 **2,811**

2-4.3 Upcoming Year Unconstrained Customer Demand

Per Southern California Association of Governments (SCAG) data. The estimated population increase within the Company's service area is very minimal. The population is expected to increase by 1,223 persons over the next 25 years.

The Company already implements permanent water conservation measures, therefore significant changes in water use are not expected due to additional policies and/or regulations.

Customer demand for the upcoming year is primarily dependent on weather conditions since there is limited recycled water utilized within the service area. Potable water is used for irrigation purposes as well as indoor use. The Company considers weather forecasts and drought conditions, utilizing resources such as the National Oceanic and Atmospheric Administration (NOAA) and Western Regional Climate Center (WRCC), in estimating the customer demand for the upcoming year.

In lieu of reliable weather forecasts, it will be assumed that the upcoming year could be a dry year and the demands from a recent dry year (such as 2017-2018 shown in Table 2-1) or the current estimated demands, whichever is more conservative, will be considered for the demand of the upcoming year.

Based on the data shown in Table 2-1, the demands for 2021-2022 will be conservatively estimated at 3,061 AF which is the production of the last dry year in 2017-2018.

2-4.4 Infrastructure Considerations

The Company will evaluate the following to determine if there will be any constraints on the system related to infrastructure that will affect its ability to deliver supplies to meet the expected demands in the upcoming year:

1. Capital Improvement Projects
2. Planned Upgrades or Repairs

SECTION 3
SIX STANDARD WATER SHORTAGE STAGES

3-1 Water Code

Water Code Section 10632(1)(3)

(A) Six standard water shortage levels corresponding to progressive ranges of up to 10, 20, 30, 40, and 50 percent shortages and greater than 50 percent shortage. Urban water suppliers shall define these shortage levels based on the suppliers' water supply conditions, including percentage reductions in water supply, changes in groundwater levels, changes in surface elevation or level of subsidence, or other changes in hydrological or other local conditions indicative of the water supply available for use. Shortage levels shall also apply to catastrophic interruption of water supplies, including but not limited to, a regional power outage, an earthquake, and other potential emergency events.

(B) An urban water supplier with an existing water shortage contingency plan that uses different water shortage levels may comply with the requirement in subparagraph (A) by developing and including a cross-reference relating its existing categories to the six standard water shortage levels.

3-2 Standard Water Shortage Levels

Water Code Section 10632(1)(3) requires water suppliers to include six standard water shortage levels that represent shortages from the normal reliability. The shortage levels have been standardized to provide a consistent regional and statewide approach to conveying the relative severity of water supply shortage conditions. The six standard water shortage levels must correspond to progressively increasing estimated shortage conditions (up to 10-, 20-, 30-, 40-, 50- percent, and greater than 50 percent shortage compared to normal reliability condition) and align with response actions the supplier would implement to meet the severity of the impending shortages.

3-3 Water Shortage Level Crosswalk

Water Code Section 10632(1)(3)(B) authorizes suppliers to continue using their own water shortage levels that have been provided in past Water Shortage Contingency Plans as long as the relationship to the six standard water shortage levels is provided.

Montebello Land and Water Company (MLWC) currently has a Water Shortage Contingency Plan (WSCP) in place with the four stages shown (Current WSCP and 2015 UWMP Stage) in Table 3-1. The corresponding shortage level mandated by the Water Code is also shown in Table 3-1 (Shortage Level).

Table 3-1
Water Shortage Level Crosswalk

Current WSCP and 2015 UWMP Stage	Supply Condition / Shortage		2020 UWMP Stage	Shortage Level
Permanent	Normal	→	1	Up to 10%
Level 1	Moderate Condition	→	2	10-20%
Level 2	Severe Condition	→	3	20-30%
		→	4	30-40%
Level 3	Emergency Condition	→	5	40-50%
		→	6	Greater than 50%

SECTION 4
SHORTAGE RESPONSE ACTIONS

4-1 Water Code

Water Code Section 1-632(a)(4)

Shortage response actions that align with the defined shortage levels and include, at a minimum, all of the following:

(A) Locally appropriate supply augmentation actions.

(B) Locally appropriate demand reduction actions to adequately respond to shortages.

(C) Locally appropriate operational changes

(D) Additional, mandatory prohibitions against specific water use practices that are in addition to state-mandated prohibitions and appropriate to the local conditions.

(E) For each action, an estimate of the extent to which the gap between supplies and demand will be reduced by implementation of the action.

4-2 Supply Augmentation

The Company's entire water supply is obtained from the Central Groundwater Basin which is adjudicated. The Company has an Allowed Pumping Allocation (APA) of 1,829 acre feet per year (AFY). The Company leases groundwater from others with excess APA to make up the difference between its APA and demand. If sufficient water cannot be leased, the Company can obtain water through the Exchange Pool. Supply augmentation is therefore conducted on an annual basis as a part of the normal water management planning and not as a response triggered by a shortage level.

4-3 Demand Reductions

4-3.1 Normal Water Shortage Condition

The normal water shortage condition is equivalent to the Water Code Standard Water Shortage Level 1, which is defined as a water shortage up to 10 percent of normal reliability. Under normal condition, permanent water conservation requirements are effective at all times and are permanent. Violations of the requirements are considered wasteful and an unreasonable use of water.

Permanent Water Conservation Requirements

A. Limits on Watering Hours. Watering or irrigating of lawn, landscape or other vegetated area with potable water is prohibited between the hours of ten a.m. and one hour before sunset Pacific Standard Time on any day, except by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, or for very short periods of time for the express purpose of adjusting or repairing an irrigation system. Lawns or other irrigated areas shall not be watered more frequently than every other day. Odd- numbered street-addressed properties may water on odd-numbered dates. Even- numbered street-addressed properties may only do so on even-numbered dates. All irrigated areas may be watered on the 29th day of the month of February every fourth year or the 31st day of the month having thirty one days. The provisions of this subsection shall not apply to restrict watering of newly seeded or reseeded lawns once a year, nor to prohibit drip irrigation systems.

B. Limit on Watering Duration. Watering or irrigating of lawn, landscape or other vegetated area with potable water using a landscape irrigation system or a watering device that is not continuously attended is limited to no more than fifteen minutes watering per day per station. This subsection does not apply to landscape irrigation systems that exclusively use very low-flow drip type irrigation systems when no emitter produces more than two gallons of water per hour or weather based controllers or stream rotor sprinklers that meet a seventy percent efficiency standard.

C. No Excessive Water Flow or Runoff. Watering of irrigating of any lawn, landscape or other vegetated area in a manner that causes or allows excessive water flow or runoff onto an adjoining property, or non-landscaped areas such as sidewalks, driveways, streets, alleys, gutters or ditches is prohibited.

D. No Washing Down Hard or Paved Surfaces. Washing down hard or paved surfaces, including but not limited to sidewalks, walkways, driveways, parking areas, tennis courts, patios or alleys, is prohibited except when necessary to alleviate safety or sanitary hazards, and then only by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off device, a low-volume, high-pressure cleaning machine equipped with a positive self-closing water shut-off device, a low-volume, high pressure cleaning machine equipped to recycle any water used, or a low-volume high-pressure water broom. Should the use of water for wash-down have to do with an immediate fire or sanitation hazard, written permission shall have been obtained from the City fire department, health department or building department.

E. Obligation to Fix Leaks, Breaks or Malfunctions. Excessive use, loss or escape of water through breaks, leaks or other malfunctions in the water users plumbing or distribution system for any period of time after such escape of water should have reasonably been discovered and corrected and in no event more than seven days of receiving notice from the Company, is prohibited.

F. Recirculating Water Required for Water Fountains and Decorative Water Features. Operating a water fountain or other decorative water feature that does not use recirculated water is prohibited.

G. Limits on Washing Vehicles. Using water to wash or clean a vehicle, including but not limited to any automobile, truck, van, bus, motorcycle, boat or trailer, whether motorized or not is prohibited except by use of a hand-held bucket or similar container or a hand-held hose equipped with a positive self-closing water shut-off nozzle or device. This subsection does not apply to any commercial car washing facility with an on-site water recycling system.

H. Drinking Water Served Upon Request Only. Eating or drinking establishments, including but not limited to restaurants, hotels, cafes, cafeterias, bars, or other public places where food or drinks are sold, served, or offered for sale, are prohibited from providing drinking water to any person unless expressly requested by that person or that person's guardian or custodian of care therefor.

I. Commercial Lodging Establishments Must Provide Guests Option to Decline Daily Linen Services.

Hotels, motels and other commercial lodging establishments must provide customers the option of not having towels and linen laundered daily. Commercial lodging establishments must prominently display notice of this option in each bathroom using clear and easily understood English and Spanish languages and any other language commonly used by users of such establishments.

J. No Installation of Single Pass Cooling Systems. Installation of single pass cooling systems is prohibited in buildings requesting new water service.

K. No Installation of Non-recirculating Water Systems in Commercial Car Wash and Laundry Systems.

Installation of non-recirculating water systems is prohibited in premises with new commercial conveyor car wash or new commercial laundry system.

L. Restaurants Required to Use Water Conserving Dish Wash Spray Valves. Food preparation establishments, such as restaurants or cafes, are prohibited from using non-water conserving dish wash spray valves.

M. Commercial Car Wash Systems. All commercial car wash systems must have installed operational recirculating water systems, or must have secured a waiver of this requirement and/or an extension of time for installation from the City.

N. Construction meters used for landscape irrigation shall not be used between ten a.m. and one hour before sunset.

O. Filling or refilling of private swimming pools, spas, ponds and artificial lakes is prohibited between ten a.m. and one hour before sunset. Swimming pools and spas shall be equipped with covers to minimize evaporation and such covers shall be used not less than five days a week unless the facility is in use.

4-3.2 Level 1 Water Shortage Condition

The Level 1 water shortage condition is equivalent to the Water Code Standard Water Shortage Level 2, which is defined as a water shortage up to 20 percent of normal reliability.

A Level 1 water supply shortage exists when the Company determines, in its sole discretion, or a declaration of such a shortage is made by a Federal, State or local government agency with jurisdiction over the Company, that due to drought or other water supply conditions, a water supply shortage or threatened shortage exists and a consumer demand reduction is necessary to make more efficient use of water and appropriately respond to existing water conditions. Upon the declaration of a Level 1 water supply shortage condition, the Company will implement the mandatory Level 1 conservation measures identified in this section.

Additional Water Conservation Measures – In addition to the prohibited uses of water identified in Section 4-3.1, the following water conservation requirements apply during a declared Level 1 water supply shortage:

A. Limits on Watering Days. Watering or irrigating of lawn, landscape or other vegetated area with potable water is limited to not to exceed three days per week on a schedule established and posted by the Company.

During the months of November through March, watering or irrigating of lawn, landscape or other vegetated area with potable water is limited to no more than one day per week on a schedule established and posted by the Company.

This provision does not apply to landscape irrigation zones that exclusively use very low flow drip type irrigation systems when no emitter produces more than two gallons of water per hour.

This provision also does not apply to watering or irrigating by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, or for very short periods of time for the express purpose of adjusting or repairing an irrigation system.

B. Obligation to Fix Leaks, Breaks or Malfunctions.

All leaks, breaks; or other malfunctions in the water user's plumbing or distribution system must be repaired within seventy-two hours of receipt of written notification by the Company unless other arrangements are made with the Company.

All leaks, breaks or malfunctions in the water purveyor's water system shall be repaired within seventy-two hours of the water purveyor becoming aware thereof.

4-3.3 Level 2 Water Shortage Condition

The Level 2 water shortage condition is equivalent to the Water Code Standard Water Shortage Level 3 and 4, which is defined as a water shortage up to 30 percent and 40 percent of normal reliability, respectively.

A Level 2 water supply shortage exists when the Company determines, in its sole discretion, or a declaration of such a shortage is made by a Federal, State or local government agency with jurisdiction over the Company, that due to drought or other water supply conditions, a water supply shortage or threatened shortage exists and a consumer demand reduction is necessary to make more efficient use of water and appropriately respond to existing water conditions. Upon the declaration by the Company of a Level 2 water supply shortage condition, the Company will implement the mandatory Level 2 conservation measures identified in this section.

Additional Water Conservation Measures – In addition to the prohibited uses of water identified in Section 4-3.1 and 4-3.2, the following water conservation requirements apply during a declared Level 2 water supply shortage:

A. Watering Days. Watering or irrigating of lawn, landscape or other vegetated area with potable water is limited to not to exceed two days per week on a schedule established and posted by the Company. During the months of November through March, watering or irrigating of lawn, landscape or other vegetated area with potable water is limited to no more than one day per week on a schedule established and posted by the Company. This provision does not apply to landscape irrigation zones that exclusively use very low flow drip type irrigation systems when no emitter produces more than two gallons of water per hour. This provision also does not apply to watering or irrigating by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, or for very short periods of time for the express purposes of adjusting or repairing an irrigation system.

B. Obligation to Fix Leaks, Breaks or Malfunctions. All leaks, breaks, or other malfunctions in the water user's plumbing or distribution system must be repaired within forty-eight hours of receipt of written notification by the Company unless other arrangements are made with the Company. All leaks, breaks or malfunctions in the water purveyor's water system shall be repaired within forty-eight hours of the water purveyor becoming aware thereof.

C. Limits on Filling Ornamental Lakes or Ponds. Filling or re-filling of ornamental lakes or ponds is prohibited, except to the extent needed to sustain aquatic life, provided that such aquatic life are of significant value and have been actively managed within the water feature prior to declaration of a supply shortage level under this Plan.

D. Limits on Washing Vehicles. Using water to wash or clean a vehicle, including but not limited to, any automobile, truck, van, bus, motorcycle, boat or trailer, whether motorized or not, is prohibited except by use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off nozzle or device, by high pressure/low volume wash systems, or at a commercial car washing facility that utilizes a recirculating water system to capture or reuse water.

E. Limits on Filling Residential Swimming Pools and Spas. Re-filling of more than one foot of depth in a pool or spa and initial filling of residential swimming pools or outdoor spas with potable water is prohibited.

4-3.4 Level 3 Water Shortage Condition

The Level 3 water shortage condition is equivalent to the Water Code Standard Water Shortage Level 5 and 6, which is defined as a water shortage up to 50 percent and greater than 50 percent of normal reliability, respectively.

A level 3 water supply shortage condition is also referred to as an "emergency" condition. A Level 3 condition exists when the Company declares a water shortage emergency, or a declaration of such a water shortage emergency is made by a Federal, State or local government agency with jurisdiction over the Company, and notifies its residents and businesses that a significant reduction in consumer demand is necessary to maintain sufficient water supplies for public health and safety. Upon the declaration of a Level 3 water supply shortage condition, the Company will implement the mandatory Level 3 conservation measures identified in this section.

Additional Water Conservation Measures – In addition to the prohibited uses of water identified in Section 4-3.1, 4-3.2 and 4-3.3, the following water conservation requirements apply during a declared Level 3 water supply shortage:

A. No Watering or Irrigating. Watering or irrigating of lawn, landscape or other vegetated area with potable water is prohibited. This restriction does not apply to the following categories of use, unless the Company has determined that recycled water is available and may be applied to the use.

   1. Maintenance of vegetation, including trees and shrubs, that are watered using a hand-held bucket or similar container, hand-held hose equipped with a positive self-closing water shut-off nozzle or device;

   2. Maintenance of existing landscape necessary for fire protection;

   3. Maintenance of plant materials identified to be rare or essential to the wellbeing of protected species;

   4. Maintenance of landscape within active public parks and playing fields, day care centers, golf course greens, and school grounds, provided that such irrigation does not exceed two days per week according to the schedule established in Section 4-3.3(A) and time restrictions in Section 4-3.1(A) and (B);

   5. Actively irrigated environmental mitigation projects.

B. Obligation to Fix Leaks, Breaks or Malfunctions. All leaks, breaks, or other malfunctions in the water user's plumbing or distribution system must be repaired within twenty-four hours of notification by the Company unless other arrangements are made with the Company. The same time restrictions shall apply to water systems of water purveyors.

   1. No New Potable Water Service. Upon declaration of a Level 3 water supply shortage emergency condition by the Company, no new potable water service shall be provided, no new temporary meters or permanent meters are to be provided, and no statements of immediate ability to serve or provide potable water service (such as, will-serve letters, certificates, or letters of availability) are to be issued, except under the following circumstances:

      (i) A valid, unexpired building permit has been issued for the project; or

      (ii) The project is necessary to protect the public health, safety, and welfare; or

      (iii) The applicant provides substantial evidence of an enforceable commitment that water demands for the project will be offset prior to the provision of a new water meter(s) to the satisfaction of the Company.

      This provision does not preclude the resetting or turn-on of meters to provide continuation of water service or the restoration of service that has been interrupted for a period of one year or less.

   2. Limits on Building Permits. The Company will request the City to limit or withhold the issuance of building permits which require new or expanded water service, except to protect the public health, safety and welfare, or in cases which meet the City's adopted water conservation offset requirements.

C. Discontinue Service. The Company, in its sole discretion, or pursuant to a Federal, State or local government agency order with jurisdiction over the Company, may discontinue service to a water user who willfully violates provisions of this section.

4-4 Operational Changes

The Company does not implement any operational changes to address water shortages.

4-5 Additional Mandatory Restrictions

The Company has permanent water conservation requirements as described in Section 4-3.1. These requirements are in place under normal conditions and therefore always apply to all customers.

4-6 Emergency Response Plan

The Company's Emergency Response Plan (ERP) was updated November 16, 2020. It is included as Attachment 4A. The purpose of the ERP is to insure timely coordination for all personnel during emergencies and natural disasters. Compliance with the ERP will hasten the recovery of system facilities following a disaster, such as fire, flood, storm, epidemic, riot, earthquakes, terrorism or other conditions, including conditions resulting from war or labor controversy.

The Company will update the ERP in accordance with America's Water Infrastructure Act of 2018 Section 2013(b) with findings of the risk and resilience assessment.

4-7 Seismic Risk Assessment and Mitigation Plan

Water Code Section 10632.5(a)

In addition to the requirements of paragraph (3) of subdivision (a) of Section 10632, beginning January 1, 2020, the plan shall include 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.

(b) An urban water supplier shall update the seismic risk assessment and mitigation plan when updating its urban water management plan as required by Section 10621.

(c) An urban water supplier may comply with this section by submitting, pursuant to Section 10644, a copy of the most recent adopted local hazard mitigation plan or multihazard mitigation plan under the federal Disaster Mitigation Act of 2000 (Public Law 106-390) if the local hazard mitigation plan or multihazard mitigation plan addresses seismic risk.

A copy of the City of Montebello's Hazard Mitigation Plan, dated January 2017 is included as Attachment 4B. Earthquake hazards and seismic risk are addressed within this plan.

SECTION 5
COMMUNICATION PROTOCOLS

5-1 Water Code

Water Code Section 10632 (a) (5)

Communication protocols and procedures to inform customers, the public, interested parties, and local, regional, and state governments, regarding, at a minimum, all of the following:

(A) Any current or predicted shortages as determined by the annual water supply and demand assessment described pursuant to Section 10632.1

(B) Any shortage response actions triggered or anticipated to be triggered by the annual water supply and demand assessment described pursuant to Section 10632.1.

(C) Any other relevant communications.

5-2 Procedures for Determination of a Water Supply Shortage

The Board of Directors may declare a water shortage at any time that it is determined that the water supply available to the Company is likely to be insufficient to meet the expected demands of the Company's customers due to any cause, including but not limited to:

- Results of annual water supply and demand assessment
- Facility failure

The existence of Level 1, Level 2, or Level 3 Water Supply Shortage conditions may be declared by resolution of the Board of Directors adopted at a regular or special meeting held in accordance with state law. The mandatory conservation requirements applicable to Level 1, Level 2, or Level 3 conditions will take effect on the tenth day after the date the water supply shortage level is declared.

5-3 Procedures for Notification of a Water Supply Shortage to the Public

Within five days following the declaration of the shortage level, the Company shall publish a copy of the resolution in a newspaper used for publication of official notices covering its service area, as well as on the Company website.

If the Company activates a water allocation process, it shall provide notice of the activation by including it in the regular billing statement or by any other mailing to the address to which the Company customarily mails the billing statement for fees or charges for ongoing water service. A water allocation will be effective on the fifth day following the date of mailing or at such later date as specified in the notice.

The notification process will be the same for each Water Supply Shortage Level that is declared.

5-4 Procedures for Notification of a Water Supply Shortage to Public Entities and Officials

Within five days following the declaration of the shortage level, the Company shall notify the City of Montebello and the County of Los Angeles. The City Manager of the City of Montebello and the Deputy Director of Water Resources at the Los Angeles County Department of Public Works will be contacted by telephone and a follow-up letter.

SECTION 6
COMPLIANCE AND ENFORCEMENT

6-1 Water Code

Water Code Section 10632(a)(6)

For an urban retail water supplier, customer compliance, enforcement, appeal, and exemption procedures for triggered shortage response actions as determined pursuant to Section 10632.2.

6-2 Penalties and Violations

6-2.1 Penalties

Penalties for failure to comply with any provisions of the WSCP are as follows:

1. First Violation

   The Company will issue a written warning and deliver a copy of this WSCP to the shareholder of record for the property on which the violation occurred by United States Postal Service first class (USPS) mail.

2. Second Violation

   A second violation within the following twelve calendar months of the first violation will subject the shareholder's account for the property on which the violation occurred to a penalty assessment not to exceed one hundred dollars ($100), which will be subject to collection by the Company as are all other rates, charges and assessments.

3. Third Violation

   A third violation within the following twelve calendar months of the first violation will subject the shareholder's account for the property on which the violation occurred to a penalty assessment not to exceed two hundred fifty dollars ($250), which will be subject to collection by the Company as are all other rates, charges and assessments.

4. Fourth and Subsequent Violations

   A fourth violation in the following twelve calendar months of the first violation will subject the shareholder's account for the property on which the violation occurred to a penalty assessment not to exceed five hundred dollars ($500), which will be subject to collection by the Company as are all other rates, charges and assessments.

5. Water Flow Restrictor

   In addition to any penalty assessments, the Company may install a water flow restrictor device of approximately one gallon per minute capacity for service pipe up to one and one-half inche size and comparatively sized restrictors for larger services after issuance by the Company of a written notice of intent to install a flow restrictor for a minimum of forty-eight hours.

6. Discontinuing Service

   In addition to any penalty assessments and the installation of a water flow restrictor, the Company may disconnect a shareholder's water service for willful violations of mandatory restriction in this WSCP.

6-2.2 Cost of Flow Restrictor and Discontinuing Service

A person or entity that violates this WSCP is responsible for payment of the water purveyor's charges for installing and/or removing any flow restricting device and for disconnecting and/or reconnecting service per the water purveyor's schedule of charges then in effect. The charge for installing and/or removing any flow restricting device must be paid to the water purveyor before the device is removed. Nonpayment will be subject to the same remedies as nonpayment of a regular water bill.

6-2.3 Separate Offenses

Each day that a violation of this WSCP occurs is a separate offense.

6-2.4 Notice and Hearing

The Company will issue a notice of violation by USPS first class mail or personal delivery at least ten days before taking enforcement action. Such notice must describe the violation and the date by which corrective action must be taken. A shareholder may appeal the notice of violation by filing a written notice of appeal with the Company no later than the close of business on the day before the date scheduled for enforcement action. Any notice of violation not timely appealed will be final. Upon receipt of a timely appeal, a hearing on the appeal will be scheduled, and the Company will mail by USPS first class service written notice of the hearing date to the shareholder at least ten days before the date of the hearing.

Pending receipt of a written appeal or pending a hearing pursuant to an appeal, the Company may take appropriate steps to prevent the unauthorized use of water as appropriate to the nature and extent of the violations and the current declared water level condition.

6-3 Hardship Waiver

If, due to unique circumstances, a specific requirement of this WSCP would result in undue hardship to a person using water or to property upon which water is used, that is disproportionate to the impacts to water users generally or to similar property or classes of water users, then the person may apply to the Company for a waiver to the requirements as provided in this section.

The waiver may be granted or conditionally granted by the Company only upon a written finding by the Company of the existence of facts demonstrating an undue hardship to a person using water or to property upon which water is used, that is disproportionate to the impacts to water users generally or to similar property or classes of water use due to specific unique circumstances of the user or the user's property.

1. **Application**. Application for a waiver must be on a form prescribed by the Company and accompanied by a non-refundable processing fee in an amount set by a Board of Directors resolution.
2. **Supporting Documentation.** The application must be accompanied by photographs, maps, drawings, and other pertinent information, including a written statement of the applicant as to the reasons for the application.
3. **Required Findings for Waiver.** An application for a waiver will be denied unless the Company finds, based on the information provided in the application, supporting documents, or such additional information as may be requested, and on water use information for the property as shown by the records of the applicant or its agent, all of the following:
    a. That the waiver does not constitute a grant of special privilege inconsistent with the limitations upon other properties and businesses;

b. That because of special circumstances applicable to the property or its use, the strict application of this WSCP would have a disproportionate impact on the property or use that exceeds the impacts to properties and businesses generally;

c. That the authorizing of such waiver will not be of substantial detriment to adjacent properties, and will not materially affect the ability of the Company to effectuate the purpose of this WSCP and will not be detrimental to the public interest;

d. That the condition or situation of the subject property or the intended use of the property for which the waiver is sought is not common, recurrent or general in nature; and

e. That the water user has demonstrated that he or she, prior to or after adoption of this WSCP, has taken effective measures for purposes of water conservation.

4. **Approval Authority.** The General Manager must act upon any completed application no later than ten days after submittal and may approve, conditionally approve, or deny the waiver. The applicant requesting the waiver must be promptly notified in writing of any action taken. Unless specified otherwise at the time a waiver is approved, the waiver will apply to the subject property during the period of the mandatory water supply shortage condition. The decision of the General Manager will be final, except that the applicant may file a written appeal to the Board of Directors. The Board of Directors, after due process, may grant, deny or grant with conditions, the appeal.

SECTION 7
LEGAL AUTHORITIES

7-1 Water Code

Water Code Section 10632(a)(7)

(A) A description of the legal authorities that empower the urban water supplier to implement and enforce its shortage response actions specified in paragraph (4) that may include, but are not limited to, statutory authorities, ordinances, resolutions, and contract provisions.

(B) A statement that an urban water supplier shall declare a water shortage emergency in accordance with Chapter 3 (commencing with Section 350) of Division 1.

(C) A statement that an urban water supplier 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.

Water Code Section Division 1, Section 350

Declaration of water shortage emergency condition. The governing body of a distributor of a public water supply, whether publicly or privately owned and including a mutual water company, shall declare a water shortage emergency condition to prevail within the area served by such distributor whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent that there would be insufficient water for human consumption, sanitation, and fire protection.

7-2 Legal Authorities

The resolution passed on August 10, 2021 approving the Water Shortage Contingency Plan provides a mechanism for the Company to implement a water conservation plan based on the severity of a water supply shortage.

7-3 Declaration of a Water Shortage Emergency

The Company shall declare a water shortage emergency in accordance with Water Code Section Division 1, Section 350.

7-4 Coordination for a Local Emergency

The Company shall coordinate with the City of Montebello and the County of Los Angeles for the possible proclamation of a local emergency, as defined in Section 8558 of the Government Code.

The contact information for the City of Montebello and the County of Los Angeles are as follows:

1. City of Montebello

   Mr. Rene Bobadilla – City Manager
   (323) 887-1363
   1600 W Beverly Blvd
   Montebello, CA 90640

2. County of Los Angeles

   Mr. Dan Lafferty – Deputy Director of Water Resources
   dlaff@pw.lacounty.gov
   (626) 458-4012
   900 S. Freemont Avenue
   Alhambra, CA 91803

Coordination protocols for local emergencies will follow the Company's Emergency Response Plan (See Attachment 4A).

SECTION 8
FINANCIAL CONSEQUENCES OF WSCP ACTIVATION

8-1 Water Code

Water Code Section 10632(a)(8)

A description of the financial consequences of, and responses for, drought conditions, including, but not limited to, all of the following:

(A) A description of potential revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).

(B) A description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions described in paragraph (4).

(C) A description of the cost of compliance with Chapter 3.3 (commencing with Section 365) of Division 1. (retail urban suppliers only)

8-2 Potential Revenue Reductions and Expenses

When shortage response actions are activated, revenue is reduced because water use is reduced throughout the system. There is a bi-monthly fixed charge that remains the same, but the water use charge will go down as each customer conserves water. The Company's overall revenue is reduced at the same time.

When shortage response actions are activated, the potential expense increases are as follows:

1. Notification costs for newspaper articles, billing fliers, and changes to website.
2. Increased staff costs for tracking, reporting, and to patrol and enforce actions.

8-3 Mitigation Actions

Historically, the Company has not had a significant enough reduction in revenue due to shortage response actions to prompt mitigation actions. This is not expected to change significantly in the future either since the Company has permanent water conservation requirements in place.

If in the future, mitigation actions are needed to address revenue reductions and expense increases associated with activated shortage response actions, the Company's options are as follows:

1. Using financial reserves
2. Reducing operation and maintenance expenses
3. Water rate adjustments
4. Triggering drought rate structures or surcharges
5. Deferring capital improvement projects

8-4 Cost of Compliance

There are no additional costs anticipated beyond what is discussed in Section 8-2 for discouraging excessive water use during a drought emergency. The Company water fees and charges inherently discourages excessive water use by using a tiers to charge single family residential and government customers. The tiers are as follows:

Tiers	Allocation	Rates per ccf
Tier 1	< 20 ccf	$1.91
Tier 2	21 – 31 ccf	$2.13
Tier 3	>32 ccf	$2.52

*ccf = hundred cubic feet

SECTION 9
MONITORING AND REPORTING

9-1 Water Code

Water code Section 10632(a)(9)

For an urban retail water supplier, 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.

9-2 Monitoring and Reporting

The Company submits monthly reports to the California State Water Resources Control Board per the regulation on Monthly Urban Water Conservation Reporting that went into effect July, 2014. These reports include the following items:

1. Reporting Month
2. Water Shortage Level
3. Population
4. Total Potable Water Production
5. Commercial Agricultural Water
6. Residential Use Percentage
7. CII Water
8. Recycled Water
9. Non-revenue Water
10. Estimated Residential Gallons per Capita per Day

9-3 Data Collection

Well production data is collected and tracked monthly for each individual well owned by the Company. The flow meters are inspected and calibrated every year.

Customers are billed bi-monthly and the water sales is therefore tracked on a bi-monthly monthly basis.

9-4 Customer Water Use

The Company staff identifies unusual high water use by customer while processing monthly water bills. The current usage is compared to the previous month as well as the same month from the year before. Any unusually high water use is flagged for evaluation. If deemed appropriate, the office staff writes up a work order for the field staff to investigate. If a potential leak is found, the customer is notified. The notification may be in person, by mail, and/or by door hanger. Meters will be tested for accuracy at a customer's request. The cost of the testing is covered by the customer unless the meter is actually found to be inaccurate. In the case of an inaccurate meter, the Company will pay for the cost of the meter to be replaced

SECTION 10
WSCP REFINEMENT PROCEDURES

10-1 Water Code

Water Code Section 10632(a)(10)

Reevaluation and improvement procedures for systematically monitoring and evaluating the functionality of the water shortage contingency plan in order to ensure shortage risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented as needed.

10-2 WSCP Refinement Procedures

The Company will review the following data from before, after, and during the time a shortage stage was in effect:

1. Reduction in total water use
2. Reduction in gallons per capita per day
3. Reduction in water use by meter type: single family residential, multi-family residential, commercial, government, and irrigation

Review and analysis of the aforementioned data would allow the Company to evaluate the effectiveness of the water conservation measures specified for the shortage stage that was implemented.

Review of data by meter type would be used to determine where the most reductions are occurring and where water conservation measures may need to be adjusted to increase water savings during a shortage. For any meter type that did not meet or is not meeting the required water reduction percentage, the Company will review the related conservation measures and adjust as needed.

In addition to reviewing conservation measures, the Company will consider increasing its efforts in public communication and education in regards to the water conservation requirements and best management practices.

At a minimum, the Company will review data annually and refine its WSCP procedures as needed.

Attachment 4A

Montebello Land and Water Company
Emergency Response Plan



EMERGENCY RESPONSE PLAN

UP-DATAED 11-16-2020

MONTEBELLO LAND & WATER COMPANY

EMERGENCY RESPONSE PLAN

The purpose of this plan is to insure timely coordination for all personnel during emergencies and natural disasters. Compliance with this plan will hasten the recovery of system facilities following a disaster, such as fire, flood, storm, epidemic, riot, earthquakes, terrorism or other conditions, including conditions resulting from war or labor controversy.

The Senior Supervisor shall assume full authority and responsibility for the handling of emergencies and the direction and completion of procedures designed to provide the best water service possible under existing circumstances.

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8) EPA Certification of Completion Doc.	

EMERGENCY HEADQUARTERS
&
DESIGNATED PERSONNEL

It is the responsibility of all employees to report to the company's plant and office headquarters LOCATED AT 344 E. MADISON AVE. MONTEBELLO, CA 90640 without undue delay. If headquarters are considered to be unsafe, temporary headquarters must be obtained immediately. Availability of communication facilities must be considered as a major priority in order to keep lines open and available to various agencies**.**

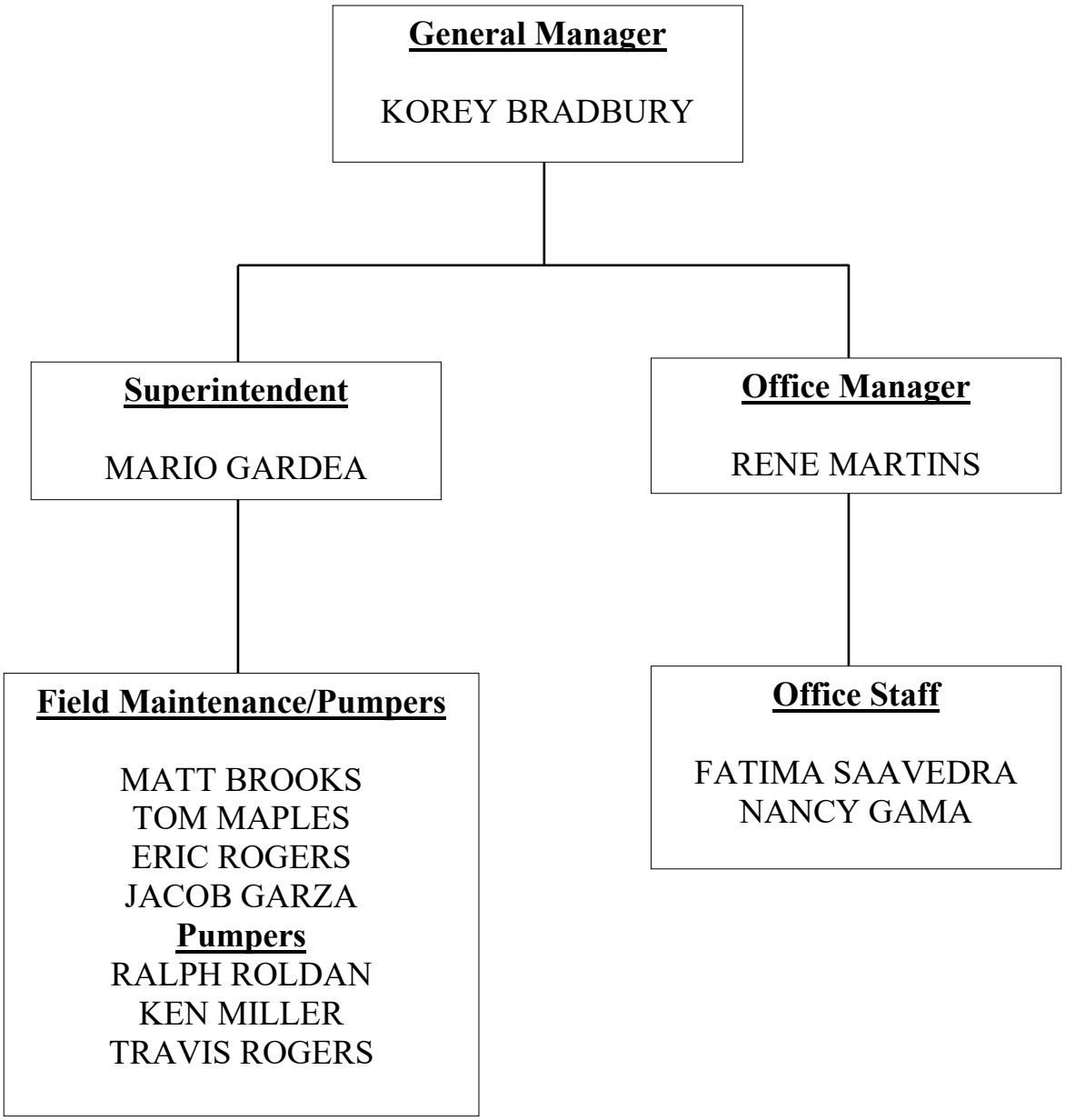
The office headquarters has been equipped with a portable generator to operate lights and radio equipment.

ATTACHED:

1) ORGANIZATION CHART
2) EMERGENCY PHONE LIST

MONTEBELLO LAND & WATER COMPANY

ORGANIZATION CHART



MONTEBELLO LAND & WATER COMPANY (FOR COMPANY USE ONLY)

SOUTHERN CALIFORNIA EDISON CO (SERVICE) ……..	800-611-1911
MONTEBELLO SERVICE PLANNERS ……	323-720-5220
SOUTHERN CALIFORNIA GAS CO (SERVICE)	
MONTEBELLO SERVICE REPRESENTATIVE ……..	800-427-2200
CITY OF MONTEBELLO ……	323-887-1200
BUSINESS: MONTEBELLO FIRE DEPT ……..	323-887-4510
MONTEBELLO POLICE DEPT ……	323-887-1212
LOCAL WATER COMPANIES:	
CALIFORNIA WATER SERVICE ……..	323-722-8601
(PUMPERS OFFICE) ……..	323-263-4145
CITY OF MONTEBELLO (REFER TO SAN GABRIEL VALLEY WATER CO)……	626-448-6183
SO MONTEBELLO IRRIGATION DISTRICT ……..	323-721-4735
SAN GABRIEL VALLEY WATER CO ……	626-448-6183

……

EMERGENCY ONLY – 911

……

MONTEBELLO LAND & WATER EMPLOYEES:

KENNETH S. BRADBURY ……	562-693-3870
KOREY BRADBURY……..	562-900-4343
MARIO GARDEA ……	562-943-3350
ERIC ROGERS ……...	626-624-1549
JACOB GARZA ……	310-291-1716
RALPH ROLDAN ……	323-728-6179
MATT BROOKS ……..	562-760-1818
KEN MILLER ……	626-852-1855
TRAVIS ROGERS……	626-373-3958
TOM MAPLES……..	626-483-9791
RENE MARTINS ……	562-695-2480
FATIMA SAAVEDRA ……..	626-262-9799
NANCY GAMA ……	562-441-3926

CELLULAR PHONES:

(1) TOM MAPLES	323-767-4900
(2) MATT BROOKS	323-767-6295
(3) TRAVIS ROGERS	323-388-9875
(4) ERIC ROGERS	323-767-6761
(5) KEN BRADBURY	213-500-5279
(6) MARIO GARDEA	213-500-3230
(7) JACOB GARZA	323-680-8345
(8) KOREY BRADBURY	562-900-4343
(8) PUMPERS	213-500-6956

FIRE DEPT DISPATCH 323-722-2111

SYSTEM INFORMATION

Name of Water System: **Montebello Land and Water Company**

Water System ID Number: **19-10091**

No. Service Connections: **4000**

Population Served: **26,554**

Water System Address: **344 E. Madison Ave,**
Montebello, CA. 90640

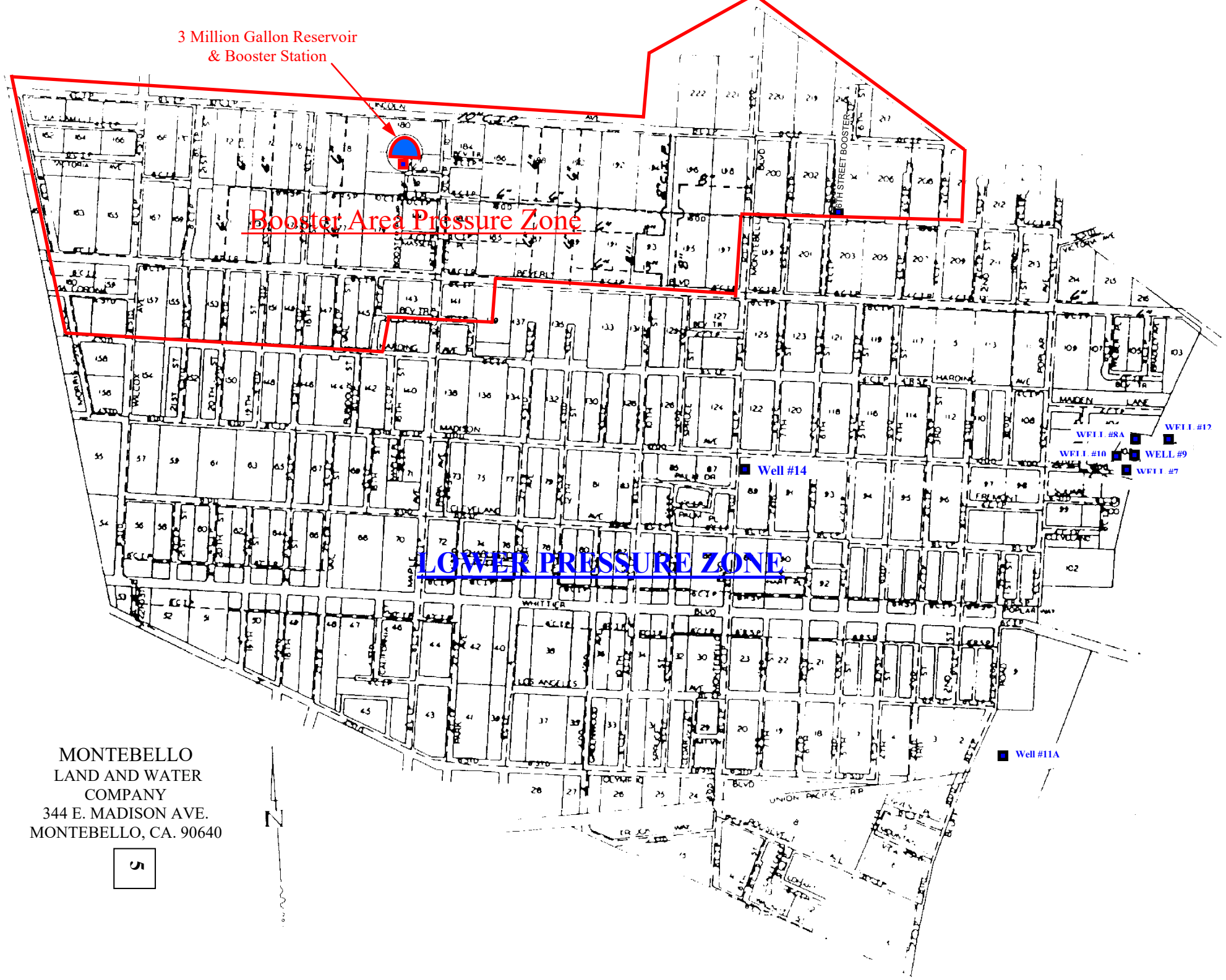
The Montebello Land and Water Company system is supplied by 7 ground water wells and is divided into *two* separate pressure zones. Interconnections can be used to maintain pressure in the zones.

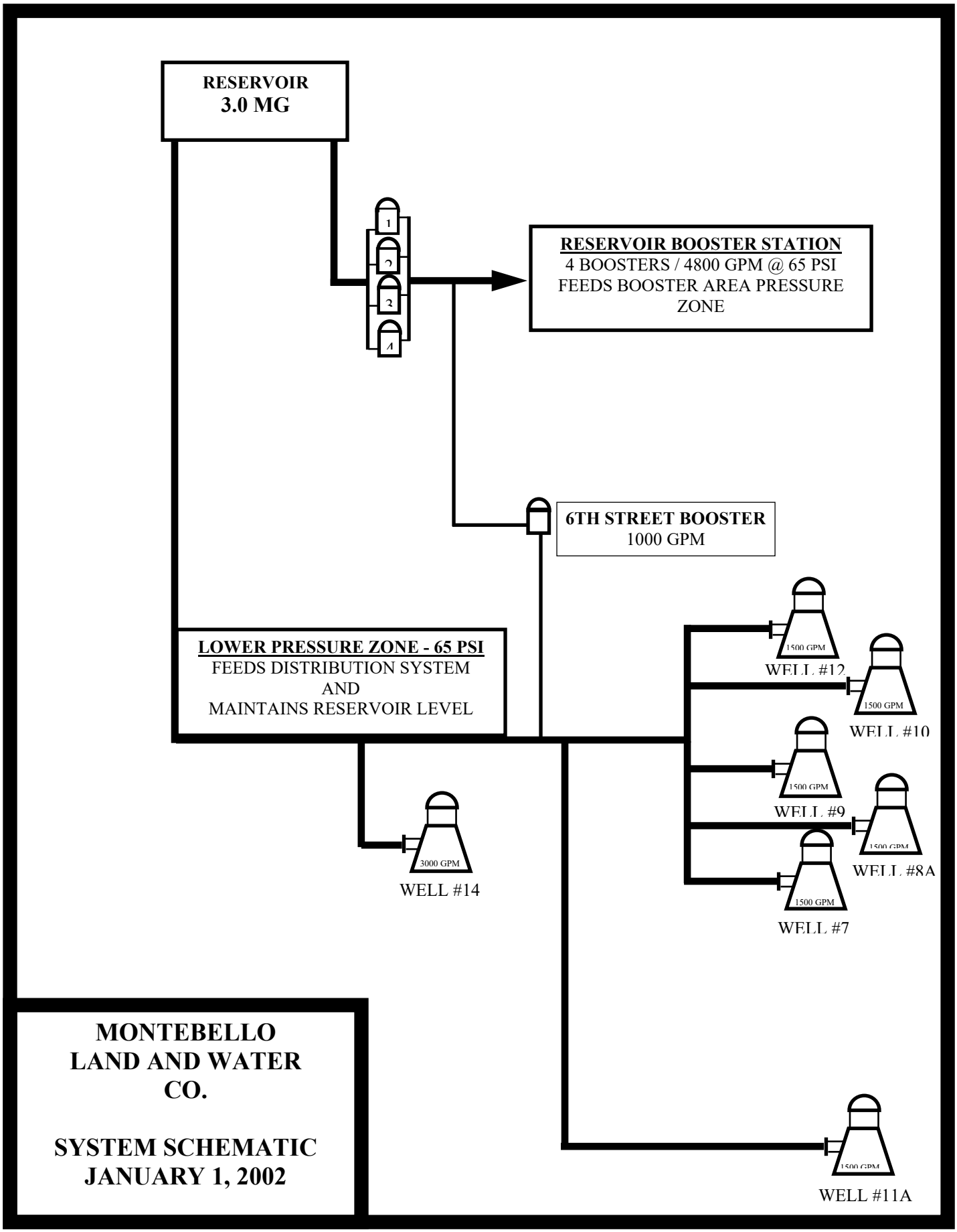
ZONE (1): Lower pressure zone has interconnections with California Water Service, San Gabriel Valley Water Company and South Montebello Irrigation District are available.

ZONE (2): Booster Zone has interconnections with California Water Service, San Gabriel Valley Water Company and the City of Montebello.

ATTACHED:

1) **SYSTEM MAP**
2) **SYSTEM SCHEMATIC**


3 Million Gallon Reservoir
& Booster Station
Booster Area Pressure Zone
LOWER PRESSURE ZONE
Well #14
WELL #8A
WELL #12
WELL #10
WELL #9
WELL #7
Well #11A
MONTEBELLO
LAND AND WATER
COMPANY
344 E. MADISON AVE.
MONTEBELLO, CA. 90640
5


RESERVOIR
3.0 MG
1
2
3
4
RESERVOIR BOOSTER STATION
4 BOOSTERS / 4800 GPM @ 65 PSI
FEEDS BOOSTER AREA PRESSURE ZONE
6TH STREET BOOSTER
1000 GPM
LOWER PRESSURE ZONE - 65 PSI
FEEDS DISTRIBUTION SYSTEM
AND
MAINTAINS RESERVOIR LEVEL
1500 GPM
WELL #12
1500 GPM
WELL #10
1500 GPM
WELL #9
1500 GPM
WELL #8A
1500 GPM
WELL #7
3000 GPM
WELL #14
1500 GPM
WELL #11A
MONTEBELLO
LAND AND WATER
CO.
SYSTEM SCHEMATIC
JANUARY 1, 2002

EMERGENCY OUTSIDE SERVICES

PIPELINE CONTRACTOR:

Doty Bros. Equipment Company 24 HR Emergency (562) 864-6566
11232 Firestone Blvd.
Norwalk, CA. 90650

Alternative Numbers:	Office:	Cell:
Fred Perez	(562) 345-1450	(951) 391-3019

" CONTRACTOR MAINTAINS INVENTORY OF PIPE FITTINGS, SERVICE MATERIALS AND PORTABLE GENERATORS "

SUPPLIERS:

Western Water Works 24 HR Emergency (909) 597-7000
5671 Gates Street Business phone (800) 834-2666
Chino, CA. 91710

Alternative Numbers:	Cellular Number:	Direct Number:
Ruben Pena	(909) 630-6375	(909) 597-7333

S&J Supply Co. 24 HR Emergency (888) 520-1226
13105 Florence Ave. Business phone (562) 944-7433
Santa Fe Springs, CA. 90670

Alternative Numbers:	Home Number:
Debbie Duran	(562) 929-8305

" FULL INVENTORY OF MATERIALS AND FITTINGS"

LABORATORY CONTACTS:

Clinical Laboratory of San Bernardino 21881 Barton RD. Grand Terrace, CA. 92313	24 HR Emergency	(909) 825-7693
Weck Laboratories 14859 E. Clark Ave. Industry, CA. 91745	24 HR Emergency	(909) 825-7693 (909) 825-7155

SAFETY

All employees are instructed monthly during an informal safety meeting and review.

QUARTERLY EQUIPMENT & FACILITY INSPECTIONS are made with any repairs, updating or modification completed as soon as feasibly possible.

CAL-OSHA SAFETY COMPLIANCE PLAN is reviewed yearly as required, with any changes or improvements noted.

Employees have been instructed that in case of an emergency and disaster, extreme safety measures must be in effect while working under these conditions. Non-compliance with safety requirements would greatly increase the potential burden on already overtaxed medical and hospital facilities.

RESPONSE PROCEDURES

ASSESSMENT OF DAMAGE:

The Senior Supervisor shall dispatch personnel to designated areas of the water service area to determine immediate damage of facilities. The dispatched employee will report the findings to headquarters, then standby for further instructions. Coordination and schedule for repairs will be determined by the Supervisor.

ASSESSMENT SHALL BE MADE AS FOLLOWS:

1) DETERMINE NEED TO REPAIR, REPLACE, ISOLATE OR ABANDON.
2) EVACUATE BUILDINGS IN DANGER OF COLLAPSE.
3) EVALUATE POSSIBLE WATER QUALITY ISSUES.
4) CONSIDER POSSIBLE EFFECTS OF AFTERSHOCKS, OR VARIOUS OTHER FORMS OF DISASTER AND DAMAGE.
5) CONSIDER THE POSSIBILITY OF A TERRORIST ACT. (SEE VULNERABILITY ASSESSMENT)
6) CONFIRM THAT FIELD CREWS COMPLETE THE FOLLOWING CHECK LIST:

RESERVOIR:

- Check for seepage, leaks, cracks, embankment slump, damaged inlet and outlet pipes and under drains.
- If necessary, lower water level to reduce possibility of structural failure.
- Check possible water quality issues.
- Check for any damage due to vandals.
- Consider the possibility of a terrorist act.

WELLS:

- Check power supply.
- Check for failure of pump motor.
- Check for physical/structural damage.
- Check for natural gas leaks.
- Check possible water quality issues.
- Check for any damage due to vandals.
- Consider the possibility of a terrorist act.

CHLORINATION EQUIPMENT:

- Check power supply.
- Check condition of mechanical and electrical equipment.
- Check chlorine residual.
- Check for chemical spill or release.
- Check for physical/structural damage.
- Check for any damage due to vandals.
- Consider the possibility of a terrorist act.

BOOSTER STATIONS & PUMPING FACILITIES:

- Check air and vacuum valves.
- Check suction and discharge lines for cracks and broken connections.
- Check power supply.
- Check for physical/structural damage.
- Check for natural gas leaks.
- Check possible water quality issues.
- Check on standby generator.
- Check for any damage due to vandals.
- Consider the possibility of a terrorist act.

PIPELINES:

- Check air and vacuum valves.
- Check for leaks, breaks, and pressure loss in lines.
- Check mechanical couplings.
- Check on backflow devices.
- Check possible water quality issues.
- Consider the possibility of a terrorist act.

ISOLATION OF DAMAGED FACILITIES

The Supervisor shall direct isolation of those facilities that are inoperable and prioritize and begin schedule for repairs.

COMMUNICATION WITH LOCAL UTILITY SUPPLIERS:

The Supervisor shall be the only person at headquarters designated to handle communications. We must keep a preconcerted open line of communication with local Gas, Electric, and Telephone Companies. In a disaster situation, all utility sources must be advised of the extreme urgency in restoration of power supply to our facilities. Water supply must be considered as a major priority in all situations.

EMERGENCY CHLORINATION PLAN

In the event of an Emergency, Montebello Land and Water Company has in place the following:

1. Two (2) Back Up Pumps for Sodium Hypochlorite.

2. Back-Up Generator in case of Power Failure.

Field Workers are familiar with installation procedures to quickly install Emergency Chlorination Equipment.

Chlorine Residual Test Kits are carried by Field Technicians and Pump Operators. Additional Test Kits are also available in the office. The Chlorine Test Kits use DPD Reagent Packets. (Chlorine Residuals are taken daily, bi-hourly)

Montebello Land and Water Company maintains at our facilities:

1. 2000 Gallons of Sodium Hypochlorite.

2. 24-Hour Emergency Service Available from our Suppliers:

Matt-Chlor	24-Hour Service	(818) 253-6465 / Matt
Aqua Backflow	24-Hour Service	(626) 289-1818
Brenntag	24-Hour Service	(562) 777-9310

State Water Resources Control Board
Division of Drinking Water

WATER QUALITY EMERGENCY NOTIFICATION PLAN

Name of Utility: MONTEBELLO LAND & WATER CO.

Physical Location/Address: 344 E. MADISON AVE., MONTEBELLO CA. 90640

The following persons have been designated to implement the plan upon notification by the Division of Drinking Water (DDW) of the State Water Resources Control Board (SWRCB) that an imminent danger to the health of the water users exists:

Water Utility: Contact Name & Title		Email Address	Telephone Day	Evening	Cell
1. KOREY BRADBURY	AGM	korey@mtblw.com	323-722-8654	562-900-4343	562-900-4343
2. MARIO GARDEA	SUP.	mario@mtblw.com	323-722-8654	323-722-8654	213-500-3230
3. KEN BRADBURY	GM	ken@mtblw.com	323-722-8654	323-722-8654	213-500-5279

The implementation of the plan will be carried out with the following State DDW and County Health Department personnel:

State DDW & County Health Department: Contact Name & Title	Telephone Day	Evening
1. **Sutida Bergquist, P.E., District Engineer** **SWRCB, Division of Drinking Water**	**(818) 551-2048** **Fax:(818) 551-2054**	**(213) 210-7100**
2. **Grazyna Newton, P.E., Associate Sanitary Engineer**	**(818) 551-2029**	**(818) 970-1319**
James Willis, P.E., Associate Sanitary Engineer	**(818) 551-2031**	**(707) 718-0800**
Milagros Alora, Sanitary Engineer	**(818) 551-2026**	**(818) 993-9351**
Terry Kim, P.E., Associate Sanitary Engineer	**(818) 551-2044**	**(818) 209-0667**
Yun Hui Park, Water Resource Control Engineer	**(818) 551-2032**	**(661) 755-5379**
Matthew Megill, Water Resource Control Engineer **State Water Resources Control Board**	(818) 551-2033	**(562) 881-8485**
3. **Scott Abbott, Branch Director**	**(626) 430-5260**	**(213) 270-5568**
Gary Hirschtick, Service Manager	**(626) 430-5816**	**(213) 270-5568**
Lusi Mkhitaryan, Chief, Drinking Water Program	**(626) 430-5420**	**(213) 270-5568**
LA County DPH-Environmental Health **Environmental Protection Branch–Local Primacy** **5050 Commerce Drive, Baldwin Park, CA 91706-1423**		

4. If the above personnel cannot be reached, contact:

Office of Emergency Services Warning Center (24 hrs.) (800) 852-7550 or (916) 845-8911
When reporting a water quality emergency to the Warning Center, please ask for the California State Water Resources Control Board – Division of Drinking Water Duty Officer.

NOTIFICATION PLAN

Attach a written description of the method or combination of methods to be used (radio, television, door-to-door, sound truck, etc.) **to notify customers in an emergency.** For each section of your plan give an estimate of the time required, necessary personnel, estimated coverage, etc. Consideration must be given to special organizations (such as schools), non-English speaking groups, and outlying water users. Ensure that the notification procedures you describe are practical and that you will be able to actually implement them in the event of an emergency. Examples of notification plans are attached for large, medium and small communities.

Report prepared by:

Ken Bradbury GM 3/20/2020

Signature and Title Date

Montebello Land & Water Company

Customer Notification on Water Quality Deficiency Required by California Law

1. WHEN CUSTOMER NOTIFICATION IS REQUIRED

The decision as to whether and when it is necessary to notify customers of a failure to meet State Health Department water quality requirements will be made by the State Health Department. Any water quality problem which might lead to such notification requirements should be immediately discussed with the General Manager, who will notify the State Health Department if necessary.

2. TEXT OF NOTIFICATION TO CUSTOMERS

The wording of the notification will be supplies by the General Manager and approved by the State Health Department.
(See attached sample notification)

3. NOTIFICATION PROCEDURE

If the water quality problem covers a substantial portion of the system, local newspaper, radio and TV outlet should be informed. The decision as to whether the general notification is required will be decided upon by the General Manager and verified by the State Health Department. Calls to the media outlets should be accomplished within thirty minutes from the time official instructions are giving by the State Health Department.
(See attached list of media outlets)

4. DOOR TO DOOR NOTIFICATION

If the water quality problem is limited to a very small portion of the service area, notification will involve a door-to-door notice operation. Leave approved notice on doorknob when there is no answer. It is estimated that the notification can be accomplished in less than one hour. The decision about this limited notification will be approved by the State Health Department. Even in the case of the limited notification, the media should be advised of the area involved.

5. **SERVICE FOR CUSTOMERS QUESTIONS**

Telephone service for customer questions should be available on a 24-hour basis until the problem is resolved. Telephone should be manned by trained personnel.

ATTACHED:

1. **List of media outlets.**

2. **Sample of an Unsafe Water Alert form.**

3. **Sample of a Boil Water Order form.**

LIST OF MEDIA OUTLETS

NEWSPAPERS

Los Angeles Times / City Desk
Times Mirror Square
Los Angeles, CA
(800) LA TIMES ext. 77847

Whitter Daily News / City Desk
7612 Greenleaf Ave.
Whittier, CA 90608
(562) 698-0955 ext. 3911

RADIO STATIONS

KALI RADIO **
747 E. Green Street
Pasadena, CA
(626) 844-8882

KWKW SPANISH RADIO **
3301 Barham Blvd.
Los Angeles, CA
(323) 851-5959

KABC RADIO
3321 S. La Cienega Blvd.
Los Angeles, CA
(310) 840-4900

KFI RADIO
3400 W. Olive Ave.
Burbank, CA
(818) 559-2252

KTYM RADIO 1460 **
6803 West Blvd.
Inglewood, CA
(310) 672-3700

KOST 103.5 / KBIG 104.3
3400 W. Olive Ave.
Burbank, CA
(818) 559-2252

KLAC 570
610 S. Ardmore
Los Angeles, CA
(323) 520-1534

TV STATIONS

KCBS TV – CHANNEL 2
6121 W. Sunset Blvd.
Hollywood, CA
(323) 460-3000

KNBC TV – CHANNEL 4
3000 W. Alameda
Burbank, CA
(818) 840-4444

KABC TV - -CHANNEL 7
500 Circle Seven Dr.
Glendale, CA
(818) 863-7600

KTLA TV – CHANNEL 5
5800 W. Sunset Blvd.
Hollywood, CA
(323) 460-5500

KCAL TV – CHANNEL 9
6121 W. Sunset Blvd.
Los Angeles, CA
(323) 467-999

KCOP TV – CHANNEL 13
1999 S. Bundy Dr.
Los Angeles, CA
(323) 584-2000

KCET TV – CHANNEL 28
4401 Sunset Blvd.
Los Angeles, CA
(323) 666-6500

KMEX TV – CHANNEL 34 **
5999 Century Dr.
Los Angeles, CA
(310) 216-3434

NOTE: ** *Signifies Spanish Speaking*

Date:

UNSAFE WATER ALERT

[Insert one-liner language other than Spanish here, otherwise delete.]

[System Name] water is possibly contaminated with [an unknown substance]

DO NOT USE YOUR WATER

Failure to follow this advisory could result in illness.

An unknown substance has been added to the drinking water supplied by the [Water System Name] due to a recent [intrusion; break-in] at [one of the wells; our treatment plant; storage tank; specific facility]. The California Department of Health Services, [County Name] County Health Department, and [Water System name] Water System are advising residents of [City, Town, System] to NOT USE THE TAP WATER FOR DRINKING, COOKING, HAND WASHING, OR BATHING UNTIL FURTHER NOTICE.

What should I do?

- **DO NOT USE YOUR TAP WATER---USE ONLY BOTTLED WATER.** Bottled water should be used for all drinking (including baby formula and juice), brushing teeth, washing dishes, making ice, food preparation and bathing **until further notice**.
- **DO NOT TRY AND TREAT THE WATER YOURSELF.** Boiling, freezing, filtering, adding chlorine or other disinfectants, or letting water stand will not make the water safe.

OPTIONS

- Optional: Potable water is available at the following locations: [List locations]
  Please bring a clean water container (5 gallons maximum capacity).

We will inform you when tests show that the water is safe again. We expect to resolve the problem within [estimated time frame].

For more information call:
Water Utility contact: [Name, title, phone & address of responsible utility representative].
California Department of Health Services at: [insert local district office, DE and phone number].
Local County Health Department: [insert phone number of local health department].

This notice is being sent to you by [insert water system name]. California Public Water System ID # [XXXXXXX]. Date Distributed: [date].

Please share this information with all other people who receive this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand.

DATE:

BOIL WATER ORDER

Este informe contiene información muy importante sobre su agua potable.
Tradúzcalo o hable con alguien que lo entienda bien.

BOIL YOUR WATER BEFORE USING

Failure to follow this advisory could result in stomach or intestinal illness.

Due to the recent event [e.g., water outage, power outage, flood, fire, earthquake or other emergency situation], the California Department of Health Services in conjunction with the [County Name] County Health Department, and [Water System name] Water System are advising residents of [City, Town, System] to use boiled tap water or bottled water for drinking and cooking purposes as a safety precaution.

DO NOT DRINK THE WATER WITHOUT BOILING IT FIRST. Bring all water to a boil, **let it boil for one (1) minute,** and let it cool before using, or use bottled water. Boiled or bottled water should be used for drinking and food preparation **until further notice**. Boiling kills bacteria and other organisms in the water. [or This is the preferred method to assure that the water is safe to drink.]

Optional alternative to include for prolonged situations where it fits.

- **An alternative method of purification for residents that do not have gas or electricity available is to use fresh liquid household bleach (Clorox®, Purex®, etc.). To do so, add 8 drops (or 1/4 teaspoon) of bleach per gallon of clear water or 16 drops (or 1/2 teaspoon) per gallon of cloudy water, mix thoroughly, and allow to stand for 30 minutes before using. A chlorine-like taste and odor will result from this purification procedure and is an indication that adequate disinfection has taken place.**
- Water purification tablets may also be used by following the manufacturer's instructions.
- Optional: Potable water is available at the following locations: [List locations]
  Please bring a clean water container (5 gallons maximum capacity).

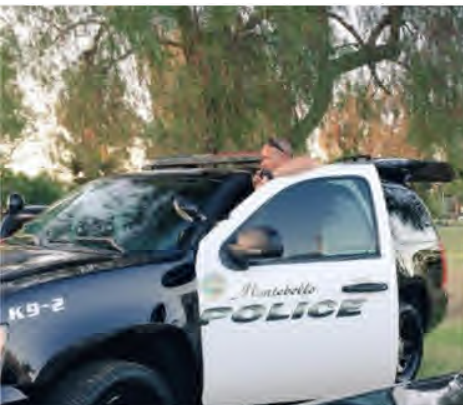
We will inform you when tests show no bacteria and you no longer need to boil your water. We anticipate resolving the problem within [estimated time frame].

For more information call:
Water Utility contact: [Name, title, phone & address of responsible utility representative].
California Department of Health Services – Drinking Water Field Operations Branch- District Office at [(XXX) XXX-XXXX].
Local Environmental Health Jurisdiction: [XXXXX County at (XXX) XXX-XXXX].

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

Attachment 4B
City of Montebello
Hazard Mitigation Plan

Hazard Mitigation Plan















January 2017

City of MONTEBELLO CALIFORNIA

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Credits

Montebello City Council

Vivian Romero, Mayor
William M. Molinari, Mayor Pro Tem
Art Barajas, Councilmember
Vanessa Delgado, Councilmember
Jack Hadjinian, Councilmember

Montebello Planning Commission

Daniel Gonzalez, Chair
Kevork Bagoian, Vice Chair
Sona Mooradian, Commissioner
Brissa Sotelo, Commissioner
Sergio Zazueta, Commissioner

City Administration

Francesca Tucker-Schuyler, City Manager
Danilo Batson, Assistant City Manager

City Staff

Ben Kim, Director of Planning and Community Development
Dan Frances, Fire Chief
Kevin McClure, Police Chief
David Sosnowski, Director of Recreation and Community Services
Tom Barrio, Director of Transportation
Steve Kwon, Director of Finance
Kurt Johnson, Fire Marshall

Consultants

California Consulting
Emergency Planning Consulting

Hazard Mitigation Planning Team:

Agency	*Name*	*Department*	*Position*
City of Montebello	Francesca Tucker-Schuyler	City Administration	City Manager
	Danilo Batson	City Administration	Assistant City Manager
	Ben Kim	Planning and Community Development Department	Director
	Dan France	Fire Department	Fire Chief
	Kurt Johnson	Fire Department	Fire Marshal
	Brad Keller	Police Department	Captain
	Rick Rojas	Police Department	Lieutenant
	David Sosnowski	Recreation and Community Services	Director
California Consulting	Allison Richards	Business Development	Senior Director
Emergency Planning Consultants	Carolyn J. Harshman	Consultant	President

Point of Contact

To request information or provide comments regarding this mitigation plan, please contact:

Name & Position Title	Matthew Feske, Planning Manager
Email	mfeske@cityofmontebello.com
Mailing Address	1600 W. Beverly Boulevard Montebello, CA 90640
Telephone Number	(323) 887-1200

Consulting Services

Emergency Planning Consultants

- ✓ Project Manager: Carolyn J. Harshman, CEM, President
- ✓ Lead Research Assistant: Alex L. Fritzler
- ✓ HAZUS/GIS: Michael McDaniel

3665 Ethan Allen Avenue
San Diego, California 92117
Phone: 858-483-4626
epc@pacbell.net
www.carolynharshman.com

Mapping

The maps in this plan were provided by Emergency Planning Consultants, City of Montebello, County of Los Angeles, Federal Emergency Management Agency (FEMA), and acquired from public Internet sources. Care was taken in the creation of the maps contained in this Plan, however they are provided "as is". The City of Montebello cannot accept any responsibility for any errors, omissions or positional accuracy, and therefore, there are no warranties that accompany these products (the maps). Although information from land surveys may have been used in the creation of these products, in no way does this product represent or constitute a land survey. Users are cautioned to field verify information on this product before making any decisions.

Mandated Content

In an effort to assist the readers and reviewers of this document, the jurisdiction has inserted "markers" emphasizing mandated content as identified in the Disaster Mitigation Act of 2000 (Public Law – 390). Following is a sample marker:

EXAMPLE

Q&A | ELEMENT A: PLANNING PROCESS | A1
Q A1: Does the Plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction? (Requirement §201.6(c)(1)) **A:**

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Part I: PLANNING PROCESS

Introduction

The Hazard Mitigation Plan (Mitigation Plan) was prepared in response to Disaster Mitigation Act of 2000 (DMA 2000). DMA 2000 (also known as Public Law 106-390) requires state and local governments to prepare mitigation plans to document their mitigation planning process, and identify hazards, potential losses, mitigation needs, goals, and strategies. This type of planning supplements the City's comprehensive land use planning and emergency management planning programs. This document is a federally mandated update to the City of Montebello 2004 Local Hazard Mitigation Plan and ensures continuing eligibility for Hazard Mitigation Grant Program (HMGP) funding.

DMA 2000 was designed to establish a national program for pre-disaster mitigation, streamline disaster relief at the federal and state levels, and control federal disaster assistance costs. Congress believed these requirements would produce the following benefits:

- ✓ Reduce loss of life and property, human suffering, economic disruption, and disaster costs.
- ✓ Prioritize hazard mitigation at the local level with increased emphasis on planning and public involvement, assessing risks, implementing loss reduction measures, and ensuring critical facilities/services survive a disaster.
- ✓ Promote education and economic incentives to form community-based partnerships and leverage non-federal resources to commit to and implement long-term hazard mitigation activities.

In addition to compliance with regulations contained in DMA 2000, the City desires to conform to the standards contained in California Assembly Bill 2140. As such, the Hazard Mitigation Plan is an attachment to the City's General Plan Safety Element (2017).

The following FEMA definitions are used throughout this plan (Source: FEMA, 2002, *Getting Started, Building Support for Mitigation Planning*, FEMA 386-1):

Hazard Mitigation – "Any sustained action taken to reduce or eliminate the long-term risk to human life and property from hazards".

Planning – "The act or process of making or carrying out plans; specifically, the establishment of goals, policies, and procedures for a social or economic unit."

Planning Approach

The four-step planning approach outlined in the FEMA publication, *Developing the Mitigation Plan: Identifying Mitigation Actions and Implementing Strategies* (FEMA 386-3) was used to develop this plan:

- ✓ **Develop mitigation goals and objectives -** The risk assessment (hazard characteristics, inventory, and findings), along with municipal policy documents, were utilized to develop mitigation goals and objectives.

- ✓ **Identify and prioritize mitigation actions -** Based on the risk assessment, goals and objectives, existing literature/resources, and input from participating entities, mitigation activities were identified for each hazard. Activities were 1) qualitatively evaluated against the goals and objectives, and other criteria; 2) identified as high, medium, or low priority; and 3) presented in a series of hazard-specific tables.
- ✓ **Prepare implementation strategy -** Generally, high priority activities are recommended for implementation first. However, based on community needs and goals, project costs, and available funding, some medium or low priority activities may be implemented before some high priority items.
- ✓ **Document mitigation planning process -** The mitigation planning process is documented throughout this plan.

Hazard Land Use Policy in California

Planning for hazards should be an integral element of any City's land use planning program. All California cities and counties have General Plans (also known as Comprehensive Plans) and the implementing ordinances that are required to comply with the statewide land use planning regulations.

The continuing challenge faced by local officials and state government is to keep the network of local plans effective in responding to the changing conditions and needs of California's diverse communities, particularly in light of the very active seismic region in which we live.

Planning for hazards requires a thorough understanding of the various hazards facing the City and region as a whole. Additionally, it's important to take an inventory of the structures and contents of various City holdings. These inventories should include the compendium of hazards facing the City, the built environment at risk, the personal property that may be damaged by hazard events and most of all, the people who live in the shadow of these hazards. Such an analysis is found in this hazard mitigation plan.

State and Federal Partners in Hazard Mitigation

All mitigation is local and the primary responsibility for development and implementation of risk reduction strategies and policies lies with each local jurisdiction. Local jurisdictions, however, are not alone. Partners and resources exist at the regional, state and federal levels. Numerous public agencies have a role in hazard identification and mitigation.

Some of the key agencies include:

- ✓ California Office of Emergency Services (Cal OES) is responsible for disaster mitigation, preparedness, response, recovery, and the administration of federal funds after a major disaster declaration;
- ✓ Southern California Earthquake Center (SCEC) gathers information about earthquakes, integrates information on earthquake phenomena, and communicates this to end-users and the general public to increase earthquake awareness, reduce economic losses, and save lives.
- ✓ California Department of Forestry and Fire Protection (CAL FIRE) is responsible for all aspects of wildland fire protection on private and state properties, and administers forest practices regulations, including landslide mitigation, on non-federal lands.

- ✓ California Division of Mines and Geology (DMG) is responsible for geologic hazard characterization, public education, and the development of partnerships aimed at reducing risk.
- ✓ California Division of Water Resources (DWR) plans, designs, constructs, operates, and maintains the State Water Project; regulates dams; provides flood protection and assists in emergency management. It also educates the public, serves local water needs by providing technical assistance
- ✓ FEMA provides hazard mitigation guidance, resource materials, and educational materials to support implementation of the capitalized DMA 2000.
- ✓ United States Census Bureau (USCB) provides demographic data on the populations affected by natural disasters.
- ✓ United States Department of Agriculture (USDA) provides data on matters pertaining to land management.

Hazard Mitigation Legislation

Hazard Mitigation Grant Program

In 1974, Congress enacted the Robert T. Stafford Disaster Relief and Emergency Act, commonly referred to as the Stafford Act. In 1988, Congress established the Hazard Mitigation Grant Program (HMGP) via Section 404 of the Stafford Act. Regulations regarding HMGP implementation based on the DMA 2000 were initially changed by an Interim Final Rule (44 CFR Part 206, Subpart N) published in the Federal Register on February 26, 2002. A second Interim Final Rule was issued on October 1, 2002.

"Floods and hurricanes happen. The hazard itself is not the disaster – it's our habits, it's how we build and live in those areas…that's the disaster."

Craig Fugate, FEMA Director

The HMGP helps states and local governments implement long-term hazard mitigation measures for natural hazards by providing federal funding following a federal disaster declaration. Eligible applicants include state and local agencies, Indian tribes or other tribal organizations, and certain nonprofit organizations.

In California, the HMGP is administered by Cal OES. Examples of typical HMGP projects include:

- ✓ Property acquisition and relocation projects
- ✓ Structural retrofitting to minimize damages from earthquake, flood, high wind, wildfire, or other natural hazards
- ✓ Elevation of flood-prone structures
- ✓ Vegetative management programs, such as:
  - o Brush control and maintenance
  - o Fuel break lines in shrubbery
  - o Fire-resistant vegetation in potential wildland fire areas

Pre-Disaster Mitigation Program

The Pre-Disaster Mitigation Program (PDM) was authorized by §203 of the Stafford Act, 42 United States Code, as amended by §102 of the DMA 2000. Funding is provided through the National Pre-Disaster Mitigation Fund to help state and local governments (including tribal governments) implement cost-effective hazard mitigation activities that complement a comprehensive mitigation program.

In Fiscal Year 2009, two types of grants (planning and competitive) were offered under the PDM Program. Planning grants allocate funds to each state for Mitigation Plan development. Competitive grants distribute funds to states, local governments, and federally recognized Indian tribal governments via a competitive application process. FEMA reviews and ranks the submittals based on pre-determined criteria. The minimum eligibility requirements for competitive grants include participation in good standing in the National Flood Insurance Program (NFIP) and a FEMA-approved Mitigation Plan.
(Source: http://www.fema.gov/fima/pdm.shtm)

Flood Mitigation Assistance Program

The Flood Mitigation Assistance (FMA) Program was created as part of the National Flood Insurance Reform Act (NFIRA) of 1994 (42 U.S.C. 4101). Financial support is provided through the National Flood Insurance Fund to help states and communities implement measures to reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insurable under the NFIP.

Three types of grants are available under FMA: planning, project, and technical assistance. Planning grants are available to states and communities to prepare Flood Mitigation Plans. NFIP-participating communities with approved Flood Mitigation Plans can apply for project grants to implement measures to reduce flood losses. Technical assistance grants in the amount of 10 percent of the project grant are available to the state for program administration. Communities that receive planning and/or project grants must participate in the NFIP. Examples of eligible projects include elevation, acquisition, and relocation of NFIP-insured structures. (Source: http://www.fema.gov/fima/fma.shtm)

Q&A | ELEMENT C. MITIGATION STRATEGY | C2

Q: C2. Does the Plan address each jurisdiction's participation in the NFIP and continued compliance with NFIP requirements, as appropriate? (Requirement §201.6(c)(3)(ii))

A: See **NFIP Participation** below.

National Flood Insurance Program

Established in 1968, the NFIP provides federally-backed flood insurance to homeowners, renters, and businesses in communities that adopt and enforce floodplain management ordinances to reduce future flood damage. The City of Montebello adopted a floodplain management ordinance in 1998 and has Flood Insurance Rate Maps (FIRM) that show floodways, 100-year flood zones, and 500-year flood zones. The City Engineer is designated as floodplain administrator.

NFIP Participation

The City of Montebello participates in NFIP and the FEMA FIRM maps for the City of Montebello were last updated September 26, 2008. Unfortunately, FEMA flood maps are not entirely accurate. These studies and maps represent flood risk at the point in time when FEMA completed the studies, and does not incorporate planning for floodplain changes in the future due to new development. Although FEMA is considering changing that policy, it is optional for local communities. According to FEMA, the City of Montebello is designated a No Special Flood Hazard Area (NSFHA). A Non-Special Flood Hazard Area (NSFHA) is an area that is in a moderate- to low-risk flood zone (Zones B, C, X Pre- and Post-FIRM). An NSFHA is not in any immediate danger from flooding caused by overflowing rivers or hard rains. City of Montebello is rated as Zone X.

However, it's important to note that structures within a NSFHA are still at risk. In fact, over 20-percent of all flood insurance claims come from areas outside of mapped high-risk flood zones.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B4

Q: B4. Does the Plan address NFIP insured structures within the jurisdiction that have been repetitively damaged by floods? (Requirement §201.6(c)(2)(ii))

A: See **Repetitive Loss Properties** below.

Repetitive Loss Properties

Repetitive Loss Properties (RLPs) are most susceptible to flood damages; therefore, they have been the focus of flood hazard mitigation programs. Unlike a Countywide program, the Floodplain Management Plan (FMP) for repetitive loss properties involves highly diversified property profiles, drainage issues, and property owner's interest. It also requires public involvement processes unique to each RLP area. The objective of an FMP is to provide specific potential mitigation measures and activities to best address the problems and needs of communities with repetitive loss properties. A repetitive loss property is one for which two or more claims of $1,000 or more have been paid by the National Flood Insurance Program (NFIP) within any given ten-year period. According to NFIP resources, there are no Repetitive Loss Properties (RLPs) within the City of Montebello.

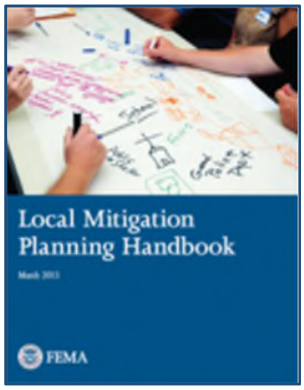
State and Federal Guidance in Hazard Mitigation

While local jurisdictions have primary responsibility for developing and implementing hazard mitigation strategies, they are not alone. Various state and federal partners and resources can help local agencies with mitigation planning.

The Mitigation Plan was prepared in accordance with the following regulations and guidance documents:

- ✓ DMA 2000 (Public Law 106-390, October 10, 2000)
- ✓ 44 CFR Parts 201 and 206, Mitigation Planning and Hazard Mitigation Grant Program, Interim Final Rule, October 1, 2002
- ✓ 44 CFR Parts 201 and 206, Mitigation Planning and Hazard Mitigation Grant Program, Interim Final Rule, February 26, 2002

- ✓ How-To Guide for Using HAZUS-MH for Risk Assessment, (FEMA 433), February 2004
- ✓ Mitigation Planning "How-to" Series (FEMA 386-1 through 9 available at: http://www.fema.gov/fima/planhowto.shtm)
- ✓ Getting Started: Building Support For Mitigation Planning (FEMA 386-1)
- ✓ Understanding Your Risks: Identifying Hazards and Estimating Losses (FEMA 386-2)
- ✓ Developing the Mitigation Plan: Identifying Mitigation Actions and Implementing Strategies (FEMA 386-3)
- ✓ Bringing the Plan to Life: Implementing the Mitigation Plan (FEMA 386-4)
- ✓ Using Benefit-Cost Review in Mitigation Planning (FEMA 386-5)
- ✓ Integrating Historic Property and Cultural Resource Considerations into Mitigation Planning (FEMA 386-6)
- ✓ Integrating Manmade Hazards Into Mitigation Planning (FEMA 386-7)
- ✓ Multi-Jurisdictional Mitigation Planning (FEMA 386-8)
- ✓ Using the Mitigation Plan to Prepare Successful Mitigation Projects (FEMA 386-9)
- ✓ State and Local Plan Interim Criteria Under the DMA 2000, July 11, 2002, FEMA
- ✓ Mitigation Planning Workshop For Local Governments-Instructor Guide, July 2002, FEMA
- ✓ Report on Costs and Benefits of Natural Hazard Mitigation, Document #294, FEMA
- ✓ LHMP Development Guide – Appendix A - Resource, Document, and Tool List for Local Mitigation Planning, December 2, 2003, Cal OES
- ✓ Local Mitigation Plan Review Guide (FEMA 2011)
- ✓ Local Mitigation Planning Handbook (FEMA 2013)



How is the Plan Organized?

The structure of the plan enables the reader to use a section of interest to them and allows the City to review and update sections when new data is available. The ease of incorporating new data into the plan will result in a Mitigation Plan that remains current and relevant.

Following is a description of each section of the plan:

Part I: Planning Process

Introduction

Describes the background and purpose of developing a mitigation plan.

Planning Process

Describes the mitigation planning process including: stakeholders and integration of existing data and plans.

Part II: Risk Assessment

Community Profile

Summarizes the history, geography, demographics, and socioeconomics of the City.

Risk Assessment

This section provides information on hazard identification, vulnerability and risk associated with hazards in the City.

City-Specific Hazard Analysis

Describes the hazards posing a significant threat to the City including:

Earthquake | Wildfire | Flooding | Dam Failure | Drought

Each City-Specific Hazard Analysis includes information on previous occurrences, local conditions, hazard assessment, and local impacts.

Part III: Mitigation Strategies

Mitigation Strategies

Documents the goals, community capabilities, and priority setting methods supporting the Plan. Also highlights the Mitigation Actions Matrix: 1) goals met; 2) identification, assignment, timing, and funding of mitigation activities; 3) benefit/cost/priorities; 4) plan implementation method; and 5) action item status.

Plan Maintenance

Establishes tools and guidelines for maintaining and implementing the Mitigation Plan.

Part IV: Appendix

The plan appendices are designed to provide users of the Mitigation Plan with additional information to assist them in understanding the contents of the mitigation plan, and potential resources to assist them with implementation.

General Hazard Overviews

Generalized subject matter information discussing the science and background associated with the identified hazards.

Attachments

FEMA Letter of Approval
City Council Staff Report
City Council Resolution
Community Meeting Sign-in Sheet
Planning Commission Notice and Minutes
Planning Team Sign-in Sheets
Web Postings and Notices

Plan Adoption and Approval

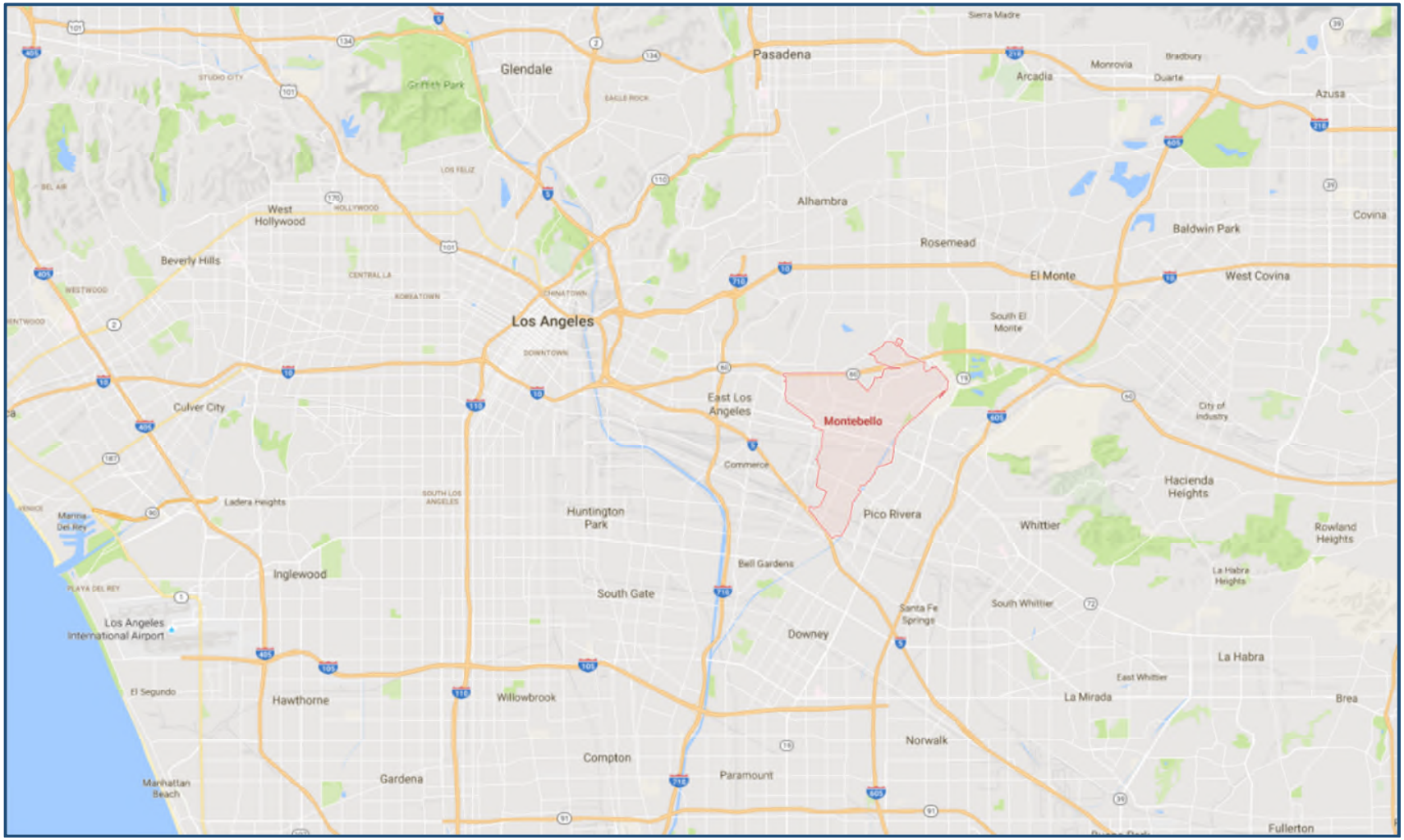
As per DMA 2000 and supporting Federal regulations, the Mitigation Plan is required to be adopted by the City Council and approved by FEMA. See the **Planning Process Section** for details.

Who Does the Mitigation Plan Affect?

This plan provides a framework for planning for natural hazards. The resources and background information in the plan are applicable City-wide and to City-owned facilities outside of the City boundaries, and the goals and recommendations provide groundwork for local

mitigation plans and partnerships. **Map: City of Montebello** shows the regional proximity of the City to its adjoining communities.

Map: City of Montebello
(Source: Google Maps)



Planning Process

Throughout the project, the City followed its traditional approach to developing policy documents which included preparation of a First Draft Plan for review by the City's Hazard Mitigation Planning Team who served as the primary stakeholders. Next, following necessary updates from the internal review, a Second Draft Plan was shared with the secondary stakeholders including: general public, external agencies (utilities, special districts, adjoining jurisdictions), and community meetings - all during the plan writing phase. Next, the comments gathered from the secondary stakeholders were incorporated into the Third Draft Plan and forwarded to Cal OES and FEMA for review and conditional approval. Mandated revisions were incorporated into the Fourth Draft Plan before presentation to City Council. The Final Draft Plan was then submitted to FEMA for final approval. The planning process described above is portrayed below in the Planning Phases Timeline:

Q&A | ELEMENT A: PLANNING PROCESS | A1

Q: A1. Does the Plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction? (Requirement §201.6(c)(1))

A: See **Planning Phases Timeline** below.

Q&A | ELEMENT A: PLANNING PROCESS | A2

Q: A2. Does the Plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development as well as other interests to be involved in the planning process? (Requirement §201.6(b)(2))

A: See **Planning Phases Timeline** below.

Q&A | ELEMENT A: PLANNING PROCESS | A3

Q: A3. Does the Plan document how the public was involved in the planning process during the drafting stage? (Requirement §201.6(b)(1))

A: See **Planning Phases Timeline** below.

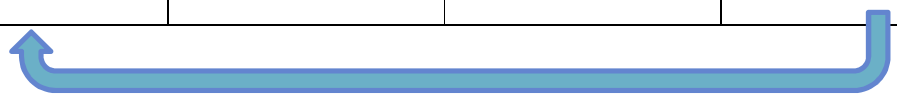
Q&A | ELEMENT E: PLAN ADOPTION | E1

Q: E1. Does the Plan include documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval? (Requirement §201.6(c)(5))

A: See **Planning Phases Timeline** below.

Figure: Planning Phases Timeline

PLANNING PHASES TIMELINE			
Plan Writing Phase (First & Second Draft Plan)	**Plan Adoption Phase (Third Draft Plan & Fourth Draft Plan)**	**Plan Approval Phase (Fourth Draft & Final Draft Plan)**	**Plan Implementation Phase**
• Planning Team input – research, meetings, writing, reading of First Draft Plan • Incorporate input into Second Draft Plan • Post Second Draft Plan and encourage input by the general public and external agencies • Post invitations and conduct two community meetings • Incorporate input gathered on Second Draft Plan into Third Draft Plan	• Post notice for Planning Commission and conduct meeting • Post notice for City Council and conduct meeting • Incorporate results of Planning Commission and City Council meetings into Final Draft Plan	• Submit Final Draft Plan to FEMA • Incorporate any mandated revisions • Receive FEMA final approval. • Incorporate FEMA approval into Final Plan	• Conduct quarterly Planning Team meetings • Integrate mitigation action items into budget, CIP and other funding and strategic documents



Plan Methodology

The Planning Team discussed knowledge of natural hazards and past historical events, as well as planning and zoning codes, ordinances, and recent regulatory changes.

The rest of this section describes the mitigation planning process including 1) Planning Team involvement, 2) inclusion of secondary stakeholders – general public, external agencies, and community meetings, and 3) integration of existing data and plans.

Q&A | ELEMENT A: PLANNING PROCESS | A1

Q: A1. Does the Plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction? (Requirement §201.6(c)(1))

A: See **Tables: Planning Team Involvement and Level of Participation** below.

Planning Team Involvement

The Planning Team consisted of representatives from City of Montebello departments related to hazard mitigation processes including: Fire, Planning and Community Development, Public Works, and Recreation and Community Services, and Police. The Planning Team served as the primary stakeholders throughout the planning process. The Planning Team was responsible for the following tasks:

- ✓ Confirming planning goals
- ✓ Prepare timeline for plan update
- ✓ Ensure plan meets DMA 2000 requirements
- ✓ Organize and solicit involvement of the general public and external agencies
- ✓ Analyze existing data and reports
- ✓ Update hazard information
- ✓ Review HAZUS loss projection estimates
- ✓ Update status of Mitigation Action Items
- ✓ Develop new Mitigation Action Items
- ✓ Participate in Planning Team meetings, community meetings, Planning Commission meeting, and City Council meeting
- ✓ Provide existing resources including maps and data

Table: Planning Team Level of Participation

Name	Research and Writing of Plan	Project Kickoff Meeting 9/6/2016	Planning Team Meeting 9/15/2016	Planning Team Meeting 10/25/2016	Planning Team Meeting 11/7/2016	Planning Team Meeting 11/14/2016	Review First Draft Plan	Attend Community Meeting (12/6/16)	Attend Community Meeting (12/19/16)	Attend Planning Commission Meeting (2/21/17)	Attend City Council Meeting (2/22/17)	Submit Final Draft Plan to Cal OES and FEMA
City of Montebello												
Dan Amador			X									
Danilo Batson			X	X	X	X	X					
Matthew Feske		X	X	X	X	X	X	X				X
Dan France				X	X		X					
Kurt Johnson		X		X	X	X	X		X			
Brad Keller			X				X					
Ben Kim		X	X	X	X	X	X		X			
Lovell Williams									X			
Rick Rojas			X									
David Sosnowski				X	X	X	X					
California Consulting												
Allison Richards		X	X									
Emergency Planning Consultants												
Carolyn J. Harshman	X	X	X	X	X	X						

Table: Planning Team Timeline

Task	September 2016	October	November	December	January 2017	February	March
EPC Research & Writing	X	X	X	X	X	X	X
Planning Team Meetings (4 hours)							
- Meeting #1 Hazard Overview	9/15/16						
- Meeting #2 Status of Hazard Mitigation Action Items and Develop New Items and Review Existing Safety Element Goals and Policies		10/25/16					
- Meeting #3 Review First Draft Plan			11/14/16				
Post Second Draft Plan on City's Website			11/17/16				
Conduct Community Meetings				12/6/16 & 12/19/16			
Submit Safety Element to Division of Mines and Geology					01/19/17 – 03/05/17		
CEQA					01/19/17 - 02/18/17		
Present Third Draft Plan to Planning Commission (with CEQA & General Plan Safety Element)							03/07/17
Present Third Draft Plan to City Council (with CEQA & General Plan Safety Element)							03/08/17
Adopted Safety Element with Hazard Mitigation Plan							03/08/17
Submit Hazard Mitigation Plan to Cal OES and FEMA							03/09/17

Q&A | ELEMENT A: PLANNING PROCESS | A2

Q: A2. Does the Plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development as well as other interests to be involved in the planning process? (Requirement §201.6(b)(2))

A: See **Stakeholder Involvement** below.

Q&A | ELEMENT A: PLANNING PROCESS | A3

Q: A3. Does the Plan document how the public was involved in the planning process during the drafting stage? (Requirement §201.6(b)(1))

A: See **Stakeholder Involvement** below.

Stakeholder Involvement

A Hazard Mitigation Planning Team (Planning Team) consisting of department representatives from City of Montebello worked with Emergency Planning Consultants to create the updated Plan. **The Planning Team served as the primary stakeholders throughout the planning process.**

As required by DMA 2000, the Planning Team involved "the public" in a variety of forums. External agencies (including utility providers, special districts and adjoining jurisdictions) were emailed an invitation to attend a briefing on November 7, 2016 regarding the Mitigation Plan and the General Plan Safety Element. Next, the Second Draft Plan was announced and posted on the City's website on November 17, 2016. External agencies and the general public were informed of its availability. On December 6, 2016 and December 19, 2016, Community Meetings were held to provide an overview on both the Mitigation Plan and the General Plan Safety Element.

The general public, external agencies, attendees at the Community Meetings all served as secondary stakeholders with opportunities to contribute to the plan during the Plan Writing Phase.

Following are the external agencies invited to attend the briefing on November 7, 2016 and participate in contributing to the Second Draft Plan. None of the invitees attended the briefing or sent comments on the Second Draft Plan.

All information gathered from the general public and external agencies was incorporated into the Third Draft Plan. Community meeting sign-in sheets and other supporting documentation are located in the **Appendix (Attachments)**. Following is a specific accounting of information received including date, agency, name, position title, and how the information was addressed:

Date	Agency Represented, Name, Position Title	Information Received	How Information was Addressed
10/13/16	City of Pico Rivera, Bob J. Archuleta, Mayor	None	
10/13/16	City of Pico Rivera, Rene Bobadilla, City Manager	None	
10/13/16	City of Pico Rivera, Benjamin Martinez, Director of Community and Economic Development	None	
10/13/16	City of Monterey Park, Mitchell Ing, Mayor	None	
10/13/16	City of Monterey Park, Ron Bow, City Manager	None	
10/13/16	City of Monterey Park, Michael Huntley, Director of Community and Economic Development	None	
10/13/16	City of South El Monte, Gloria Olmos, Mayor Pro Tem	None	
10/13/16	City of South El Monte, Jennifer Vasquez, City Manager	None	
10/13/16	City of South El Monte, Manuel Mancha, Director of Community and Economic Development	None	
10/13/16	City of Commerce, Ivan Altamirano , Mayor	None	
10/13/16	City of Commerce, Jorge Rifa, City Administrator	None	
10/13/16	City of Commerce, Maryam Babaki, Director	None	

	of Public Works and Development Services		
10/13/16	County of Los Angeles, Hilda Solis, 1st District, Board of Supervisors	None	
10/13/16	County of Los Angeles, Richard Bruckner, Director of Planning	None	
10/13/16	Southern California Edison, Marc Sullivan, New Business Analyst	None	
10/13/16	Southern California Gas, Rodger Schwecke, VP, Gas Transmission and Storage	None	
10/13/16	CalTrans, Rusty Thornton, Chief, System Planning	None	
10/13/16	Southern California Association of Governments, Naresh Amatya, Acting Director, Transportation Planning	None	
10/13/16	Central Basin Municipal Water District, Jacque Koontz, Engineering & Operations Manager	None	
10/13/16	Cal Water, Henery Wind, Acting Manager	None	
10/13/16	Montebello Land and Water Company, Ken Bradbury, General Manager	None	
10/13/16	San Gabriel Valley Water Company, Leo Barrera, Customer Service Manager	None	

10/13/16	South Montebello Irrigation, Brian Sinclair, Manager	None	
12/19/16 12/27/16	Citizens Coalition for a Safety Community, Dr. Tom Williams, Senior Technical Adviser	Dr. Williams attended the Community Workshop on 12/19/16 and followed up with written communication dated 12/27/16. Following is a summary of the comments relating to the Hazard Mitigation Plan: 1. Lack of mention of Montebello Oil Field, Montebello Gas Storage Facility, and Monterey Park Landfill. 2. Climate – challenged definition of Mediterranean climate and El Nino. 3. Population – update 2014 Department of Finance information to available 2016 data. 4. Land Use Categories – missing Commercial and Manufacturing. 5. Emergency Response Plan – missing. 6. Earthquake Hazards – no mention on 1989 Montebello Earthquake. Other questions are raised concerning earthquake hazards.	Much of the information conveyed by Dr. Williams backs up the fact the City of Montebello needs a comprehensive Technical Background Report with its next update to the Safety Element. The need for a Technical Background Report is already identified in the Mitigation Actions Matrix. Also, several points raised were site-specific emergency response actions that are not included in a general non-response document like the Hazard Mitigation Plan. At present, the City is actively involved in updating its Emergency Operations Plan which addresses such site-specific information. Following are comments intended to address specific issues identified by Dr. Williams: 1. Mention of the oil and gas facilities have been added to the Risk Assessment Section. 2. Climate – provided further definition of Mediterranean climate and El Nino. 3. Population – updated data to 2016 results. 4. Land Use Categories – added Commercial and Manufacturing. 5. Emergency Response Plan - the Hazard Mitigation Plan is dedicated to identifying hazards (primarily natural hazards) while documenting existing and future actions that will minimize or eliminate threats associated with the hazards. It is not intended in any regard to address preparedness, response, or recovery. The City maintains an Emergency Operations Plan for overall coordination during a major emergency while emergency response department (Fire,

			Police, Public Works) maintain discipline-specific Standard Operating Procedures and Pre-Plans. Additionally, high vulnerability (e.g. special populations, hazardous materials) sites are required to maintain Emergency Response Plans. 6. Earthquake Hazards - Montebello Earthquake added. Other questions relating to earthquake hazards would best be addressed in a Safety Element Technical Background Report (as identified earlier). Regulations relating to hazard mitigation plans (DMA 2000) do not require scientific or geological investigations but rather a generalized summary of available maps and reports.
11/30/16 12/19/16 12/22/16	James Flournoy	Mr. Flournoy emailed comments to the City of Montebello on 11/30/16. In addition, he attended the Community Meeting on 12/19/16. Additional comments were received from Mr. Flournoy dated 12.22/16 however those comments focused on the General Plan Safety Element and are therefore not included here. Following is a summary of the comments relating to the Hazard Mitigation Plan: 1.Several disagreements with the analysis of the seismic threat to Montebello. 2. Challenges to the ratings in the CPRI. 3. Request for maps of water tanks and all stiff non ductile	1. The geologic and seismic information was provided by a licensed geotechnical engineering. Also, both the Mitigation Plan and General Plan Safety Element identify the need for an updated Technical Background Report. The present TBR is dated 1975. 2. The Calculated Priority Risk Index is a very generalized tool used to convey information about various hazards. It is not intended in any regard to be scientific or objective. It is a tool developed by FEMA for use in emergency operations plans in order to generally describe the probability, impact, duration, and warning associated with a range of hazards. 3. The Hazard Mitigation Plan is not written as nor to be used as an Emergency Operations Plan. The City is presently involved in updating the EOP which will include a comprehensive hazard analysis.

		piping.	
12/19/16 12/23/16	Yvonne Watson	Ms. Watson attended the Community Meeting on 12/19/16 and emailed comments to the City of Montebello on 12/23/16. Following is a summary of the comments relating to the Hazard Mitigation Plan: 1. The Montebello Fault should be considered as a possible risk. 2. Information on the 2012 and 2013 fires should be included. 3. The Flood Insurance Rate Map cuts off the northeast area of Montebello which is most vulnerable to flooding. 4. Mitigation action items suggested relating to dam inundation and drought. 5. Mitigation action item relating to extreme temperatures and wind. 6. Recommend City prepare a Threat & Hazard Identification and Risk Assessment (THIRA).	1. The geologic and seismic information was provided by a licensed geotechnical engineering. Also, both the Mitigation Plan and General Plan Safety Element identify the need for an updated Technical Background Report. The present TBR is dated 1975. 2. The Mitigation Plan identifies “wildfire” as a significant threat however does not discuss structure or other non-wildfire events. The City’s update to the Emergency Operations Plan will include a thorough hazard analysis including all types of fires. 3. FIRM map was corrected. 4. Action items added to the Mitigation Actions Matrix – Flooding and Drought. 5. Action items added to the Mitigation Actions Matrix – Multi-Hazard. 6. Action item added to Mitigation Actions Matrix. Note: the THIRA was designed by FEMA to be used in association with an Emergency Operations Plan. The intent of the Mitigation Plan is to provide a very generalized and educational overview of hazards while also identifying ongoing and future mitigation actions.

External agencies were invited via email and provided with an electronic link to the City's website containing the Second Draft Plan. In the same email the external agencies were invited to attend a briefing on November 14th of both the updated Mitigation Plan and the updated General Plan Safety Element. No external agencies attended and no comments received on either document.

Q&A | ELEMENT C. MITIGATION STRATEGY | C1

Q: C1. Does the plan document each jurisdiction's existing authorities, policies, programs and resources and its ability to expand on and improve these existing policies and programs? (Requirement §201.6(c)(3))

A: See **Capability Assessment – Existing Processes and Programs** below.

Capability Assessment – Existing Processes and Programs

The City will incorporate mitigation planning as an integral component of daily operations. This will be accomplished by the Planning Team working with their respective departments to integrate mitigation strategies into the planning documents and operational guidelines within the City. In addition to the Capability Assessment below, the Planning Team will strive to identify additional policies, programs, practices, and procedures that could be created or modified to address mitigation activities.

Table: Capability Assessment - Existing Processes and Programs

Process	Action	Implementation of Plan
Administrative	Departmental or organizational work plans, policies, and procedural changes	✓ *Planning and Community Development Department* ✓ *Public Works Department* ✓ *Other departments as appropriate*
Administrative	Other plans	✓ *Reference plan in Emergency Operations Plan*
Budgetary	Capital and operational budgets	✓ *Include line item mitigation measures in budget as appropriate*
Regulatory	Executive orders, ordinances, and other directives	✓ *Building Code* ✓ *Capital Improvement Plan (Project related to hazard mitigation)* ✓ *Incorporate mitigation goals in future updates to the General Plan Safety Element* ✓ *General Plan (Institutionalize hazard mitigation in land use and new construction)* ✓ *National Flood Insurance Program* ✓ *Storm Water Management Plan* ✓ *Zoning Ordinance*
Funding	Traditional and nontraditional sources	✓ *Once plan is approved, seek authority to use bonds, fees, loans, and taxes to finance projects* ✓ *Seek assistance from federal and state government, foundation, nonprofit, and private sources, such as Hazard Mitigation Grant Program* ✓ *Research and grant opportunities through U.S.*

Process	Action	Implementation of Plan
		Department of Housing and Urban Development, Community Development Block Grant
Partnerships	Creative funding and initiatives	✓ *Community volunteers* ✓ *In-kind resources* ✓ *Public-private partnerships* ✓ *State support*
Partnerships	Advisory bodies and committees	✓ *Disaster Management Area Coordinator*

Q&A | ELEMENT A: PLANNING PROCESS | A4

Q: A4. Does the Plan describe the review and incorporation of existing plans, studies, reports, and technical information? (Requirement §201.6(b)(3))

A: See **Use of Existing Data** below.

Use of Existing Data

The Planning Team gathered and reviewed existing data and plans during plan writing and specifically noted as "sources". Numerous electronic and hard copy documents were used to support the planning process:

- ✓ City of Montebello General Plan and Elements
  - o *Zoning map included in the Community Profile section.*
  - o *The Community Profile sections includes City specific geography, environmental, population, housing and demographic information, and transportation information.*
- ✓ City of Montebello Emergency Operations Plan
  - o *The Community Profile section includes City specific employment and transportation information.*
- ✓ County of Los Angeles All-Hazards Mitigation Plan (2014)
  - o *Information about hazards in the County contributed to the hazard-specific sections in the City's Mitigation Plan.*
- ✓ California State Hazard Mitigation Plan (2013)
  - o *Used to identify hazards posing greatest threats to State.*
- ✓ HAZUS maps and reports
  - o *Numerous HAZUS results have been included for Earthquake, Flooding, and Dam Failure scenarios to determine specific risk to City of Montebello.*
- ✓ Census data
  - o *The Community Profile includes Census information from the California Department of Finance.*
- ✓ FEMA "How To" Mitigation Series (386-1 to 386-9)
  - o *The Series were introduced as resources in each of the Planning Team meetings.*

- *Mitigation Measures Categories and 4-Step Planning Process are quoted in the Executive Summary.*

✓ National Flood Insurance Program
- *The NFIP website was used to confirm there are no repetitive loss properties within the City.*

✓ Local Flood Insurance Rate Maps
- *Provided by FEMA and included in Flood Hazard section.*

Q&A | ELEMENT E: PLAN ADOPTION | E1

Q: E1. Does the Plan include documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval? (Requirement §201.6(c)(5))

A: See **Plan Adoption Process** below.

Plan Adoption Process

Adoption of the plan by the local governing body demonstrates the City's commitment to meeting mitigation goals and objectives. Governing body approval legitimizes the plan and authorizes responsible agencies to execute their responsibilities.

Upon receipt of the conditional approval from FEMA, the Fourth Draft Plan was presented to the Planning Commission. In preparation for the City Council meeting, the Planning Team prepared a staff report including an overview of the Planning Process, Risk Assessment, Mitigation Goals, and Mitigation Actions. The staff report also included a summary of the input received during the Planning Commission meeting and any comments from the general public and external agencies received preceding the City Council meeting. During the Council meeting, the Mayor encouraged participants to present their views and make suggestions on the Plan.

The City Council heard the item on March 8, 2017. The City Council voted _____ to adopt the updated Mitigation Plan. The Resolution of adoption by the City Council is in the **Appendix**.

Plan Approval

Following the adoption by City Council, the Final Draft Plan was submitted to FEMA with a request for approval. FEMA issued a final approval on _____. A copy of the FEMA Letter of Approval is in the **Appendix**.

Part II: RISK ASSESSMENT

Community Profile

Geography and the Environment



According to the City's General Plan Housing Element (2013), the City of Montebello has a total land area of 8.25 square miles. The City of Montebello is located approximately 7 miles southeast of downtown Los Angeles and is bounded by the cities of Monterey Park and Rosemead on the north, the City of Commerce and unincorporated portions of Los Angeles County on the west, the Whittier Narrows Recreation area on the east, the City of Commerce on the southwest and the City of Pico Rivera on the southeast.

Originally an agricultural community, Montebello had an ideal climate, productive soil, and an abundance of water for farming. From the turn of the century continuing through the 1920's, the area was well known for its production of flowers, vegetables, berries, and fruits. The discovery of oil by Standard Oil Company on the Anita Baldwin property in 1917, brought about a new era for the City. By 1920, Montebello Oil Fields accounted for one-eighth of total California crude oil production. On October 19, 1920, Montebello was incorporated as the 35th of the present cities in Los Angeles County. Since that time the Montebello Oil Fields continues to be in use in varying degrees based on location. Also, Montebello Gas Storage Facility (operated by Southern California Gas Company) is actively producing and processing natural gas. According to Southern California Gas Company in 2016, the site includes a total of 46 active wells producing 1 million cubic feet of natural gas from residual supplies and 100 barrels of oil every day.

Climate

The Los Angeles metropolitan area averages year-round moderate-to-warm weather. The climate is classified as a Mediterranean climate, which is a type of dry subtropical climate, characterized by seasonal changes in rainfall—with a dry summer and a winter rainy season—but relatively modest transitions in temperature. The City of Montebello is located 15 miles inland from the Pacific. Marine layer clouds are common early in the day before giving way to sunny afternoons. The City experiences average temperature of about 71°F during summer and about 57°F during winter months. Montebello receives an average of 17 inches of rainfall per year.

As the State of California and the Los Angeles region has undergone a several-year drought, rainfall has been much lower in the City. However, rainfall totals were on the rise throughout the preparation of the update to the Plan.

Furthermore, actual rainfall in the Southern California region tends to fall in large amounts during sporadic and often heavy storms rather than consistently over storms at somewhat regular intervals. In short, rainfall in Southern California might be characterized as feast or famine within a single year.

Population and Demographics

Montebello experienced steady population growth in its earlier days and a boom after the end of World War II. Population growth continued into the 1980's though the rate of growth slowed in the decade following 2000 due to demographic trends and limited new housing development. According to the California Department of Finance (2014), the population has grown to 63,745 as of 2014. From 2000 to 2014, the City's population growth rate of 2.6% was lower than the Los Angeles County rate of 5.7%.

According to the California Department of Finance (2014), the demographic makeup of the City is as follows:

Table: City of Montebello Demographics
(Source: California Department of Finance, E-5, 2014)

Racial/Ethnic Group	2000	2014	Change	Change %
Hispanic	46,364	51,506	5,142	11%
White	6,899	4,908	(1,991)	-29%
Black	373	382	9	2%
American Indian Eskimo	124	128	4	3%
Asian or Pacific Islander	7,085	6,438	(647)	-9%
Other	1,305	383	(922)	-71%
Total	**62,150**	**63,745**	**1,595**	**3%**

Housing and Community Development

Table: City of Montebello Housing
(Source: California Department of Finance, E-5, 2014)

2014	Number	Percent %
Housing Type:		
1-unit, detached	9,823	49.6%
1-unit, attached	1,542	7.8%
2-4 Units	2,466	12.4%
5+ Units	5,717	28.9%
Mobile homes/Other	266	1.3%
Housing Statistics:		
Total Available Housing Units	19,814	100%
Owner-Occupied Housing	9,035	45.6%

2014	Number	Percent %
Renter-Occupied	10,779	54.5%
Average Household Size:	3.3 persons	
Median Home Price:	$385,000	

Employment and Industry

According to the City of Montebello General Plan Housing Element (2013), during the 24 years between 1990 and 2014, the number of residents employed in the manufacturing and retail trade sectors experienced significant declines. During this same period, the number of residents employed in the health services, education, arts, and public administration increased.

Jobs in education account for the majority of jobs offered in Montebello. The Montebello Unified School District is the largest employer in the City, with multiple schools providing jobs for administrators, teachers, and custodians, as well jobs located at the central administration offices.

Table: City of Montebello Industry
(Source: American Community Survey - 2014)

Industry	2014	
	Number	Percent %
Agriculture, forestry, fishing and hunting, and mining	77	0.3%
Construction	1,391	5.3%
Manufacturing	2,947	11.2%
Wholesale Trade	1,316	5.0%
Retail Trade	2,912	11.1%
Transportation and Warehousing, and Utilities	1,881	7.1%
Information	587	2.2%
Finance and insurance, and real estate and rental and leasing	1,570	6.0%
Professional, scientific, and management, and administrative and waste management services	2,506	9.5%
Educational services, and health care and social assistance	5,734	21.8%
Arts, entertainment, and recreation, and accommodation and food services	2,321	8.8%
Other services, except public administration	1,762	6.7%
Public administration	1,308	5.0%

Table: City of Montebello Occupation
(Source: American Community Survey - 2014)

Occupation	2014	
	Number	Percent
Civilian employed population (16 years and over)	26,312	100.0%
Management, business, science, and arts occupations	7,658	29.1%
Service occupations	4,589	17.4%
Sales and office occupations	7,475	28.4%
Natural resources, construction, and maintenance occupations	2,039	7.8%
Production, transportation, and material moving	4,551	17.3%

Transportation

According to the City of Montebello's Emergency Operations Plan (2005), there are 122 miles of streets within the City including four major east west routes and two north south routes. The City is bounded by the Santa Ana Freeway (Highway 5) on the south and the Pomona Freeway (605 Freeway) on the east. These freeways are major north-south transportation routes. South Montebello is home to 10 major trucking company terminals and is a corridor for two major rail lines.

Montebello Bus Lines' (MBL) provides transportation services to residents of Montebello and neighboring cities. MBL is the third largest municipal bus system in Los Angeles County, behind Long Beach Transit and Santa Monica's Big Blue Bus. With a fleet of 66 buses, MBL serves over 8 million passengers a year throughout the communities of Alhambra, Bell Gardens, Boyle Heights, Commerce, Downtown Los Angeles, East Los Angeles, La Mirada, Montebello, Monterey Park, Pico Rivera, Rosemead, South Gate and Whittier. In addition to providing transportation services, MBL also maintains the Montebello Metrolink Station and over 800 bus stops. MBL secures dedicated transportation funding from federal, state and local agencies to provide public transit services.



Map: Major Roadways
Source – General Plan Circulation Element



Risk Assessment

What is a Risk Assessment?

Conducting a risk assessment can provide information regarding: the location of hazards; the value of existing land and property in hazard locations; and an analysis of risk to life, property, and the environment that may result from natural hazard events. Specifically, the five levels of a risk assessment are as follows:

1. *Hazard Identification*
2. *Profiling Hazard Events*
3. *Vulnerability Assessment/Inventory of Existing Assets*
4. *Risk Analysis*
5. *Assessing Vulnerability/Analyzing Development Trends*

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B1

Q: B1. Does the Plan include a description of the type, location, and extent of all natural hazards that can affect each jurisdiction(s)? (Requirement §201.6(c)(2)(i))

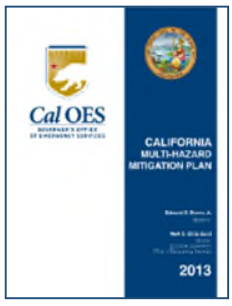
A: See **Hazard Identification** below.

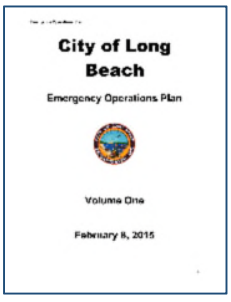
1) Hazard Identification

This section is the description of the geographic extent, potential intensity, and the probability of occurrence of a given hazard. Maps are used in this plan to display hazard identification data. The City of Montebello utilized the categorization of hazards as identified in California Multi-Hazard Mitigation Plan (2013), including: Earthquakes, Floods, Levee failures, Wildfires, Landslides and earth movements, Tsunami, Climate-related hazards, and Volcanoes.

Next, the Planning Team reviewed existing documents to determine which of these hazards posed the most significant threat to the City. In other words, which hazards were most likely to cause impacts that you require a local declaration of emergency.







The geographic extent of each of the identified hazards was identified by the Planning Team utilizing maps and data contained in the City's General Plan and City's Emergency Operations Plan. In addition, numerous internet resources and the County of Los Angeles All-Hazards Mitigation Plan served as valuable resources. Utilizing the Calculated Priority Risk Index (CPRI)

ranking technique, the Planning Team concluded the following hazards posed a significant threat against the City:

Earthquake | Wildfire | Flooding | Dam Failure | Drought

The hazard ranking system is described in **Table: Calculated Priority Risk Index**, while the actual ranking is shown in **Table: Calculated Priority Risk Index Ranking for City of Montebello**.

Table: Calculated Priority Risk Index
(Source: Federal Emergency Management Agency)

CPRI Category	Degree of Risk			Assigned Weighting Factor
	Level ID	Description	Index Value	
Probability	Unlikely	Extremely rare with no documented history of occurrences or events. Annual probability of less than 1 in 1,000 years.	1	45%
	Possibly	Rare occurrences. Annual probability of between 1 in 100 years and 1 in 1,000 years.	2	
	Likely	Occasional occurrences with at least 2 or more documented historic events. Annual probability of between 1 in 10 years and 1 in 100 years.	3	
	Highly Likely	Frequent events with a well-documented history of occurrence. Annual probability of greater than 1 every year.	4	
Magnitude/ Severity	Negligible	Negligible property damages (less than 5% of critical and non-critical facilities and infrastructure . Injuries or illnesses are treatable with first aid and there are no deaths. Negligible loss of quality of life. Shut down of critical public facilities for less than 24 hours.	1	30%
	Limited	Slight property damage (greater than 5% and less than 25% of critical and non-critical facilities and infrastructure). Injuries or illnesses do not result in permanent disability, and there are no deaths. Moderate loss of quality of life. Shut down of critical public facilities for more than 1 day and less than 1 week.	2	
	Critical	Moderate property damage (greater than 25% and less than 50% of critical and non-critical facilities and infrastructure). Injuries or illnesses result in permanent disability and at least 1 death. Shut down of critical public facilities for more than 1 week and less than 1 month.	3	
	Catastrophic	Severe property damage (greater than 50% of critical and non-critical facilities and infrastructure). Injuries and illnesses result in permanent disability and multiple deaths. Shut down of critical public facilities for more than 1 month.	4	
Warning Time	> 24 hours	Population will receive greater than 24 hours of warning.	1	15%
	12–24 hours	Population will receive between 12-24 hours of warning.	2	
	6-12 hours	Population will receive between 6-12 hours of warning.	3	
	< 6 hours	Population will receive less than 6 hours of warning.	4	
Duration	< 6 hours	Disaster event will last less than 6 hours	1	10%
	< 24 hours	Disaster event will last less than 6-24 hours	2	
	< 1 week	Disaster event will last between 24 hours and 1 week.	3	
	> 1 week	Disaster event will last more than 1 week	4	

Table: Calculated Priority Risk Index Ranking for City of Montebello

Hazard	Probability	Weighted 45% (x.45)	Magnitude Severity	Weighted 30% (x.3)	Warning Time	Weighted 15% (x.15)	Duration	Weighted 10% (x.1)	CPRI Totals
Earthquake – San Andreas M8.0	3	1.35	3	1.2	4	0.6	1	0.1	**2.95**
Earthquake – Newport-Inglewood M7.1	3	1.35	3	1.2	4	0.6	1	0.1	**2.95**
Earthquake – Puente Hills M7.1	3	1.35	3	1.2	4	0.6	1	0.1	**2.95**
Earthquake – Whittier M6.8	3	1.35	3	1.2	4	0.6	1	0.1	**2.95**
Earthquake – Sierra Madre M6.8	3	1.35	3	1.2	4	0.6	1	0.1	**2.95**
Wildfire	2	.90	2	0.6	3	0.45	3	0.3	**2.25**
Flooding	2	.90	2	0.6	1	0.15	2	0.2	**1.85**
Dam Failure	2	.90	3	0.9	2	0.3	4	0.4	**2.50**
Drought	1	.45	2	0.6	1	0.15	4	0.4	**1.60**

2) Profiling Hazard Events

Profiling of hazards involves a process of describing the causes and characteristics of each hazard and what part of the City's facilities, infrastructure, and environment may be vulnerable to each specific hazard. A profile of each hazard discussed in this plan is provided in the City-Specific Hazard Analysis. **Table: Vulnerability: Location, Extent, and Probability for City of Montebello** indicates a generalized perspective of the community's vulnerability of the various hazards according to extent (or degree), location, and probability.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B1

Q: B1. Does the Plan include a description of the type, location, and extent of all natural hazards that can affect each jurisdiction(s)? (Requirement §201.6(c)(2)(i))

A: See **Table: Vulnerability: Location, Extent, and Probability for City of Montebello** below.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B2

Q: B2. Does the Plan include information on previous occurrences of hazard events and on the probability of future hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))

A: See **Table: Vulnerability: Location, Extent, and Probability for City of Montebello** below.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B3

Q: B3. Is there a description of each identified hazard's impact on the community as well as an overall summary of the community's vulnerability for each jurisdiction? (Requirement §201.6(c)(2)(ii))

A: See **Table: Vulnerability: Location, Extent, and Probability for City of Montebello** below.

Table: Vulnerability: Location, Extent, Probability, and Previous Occurrences in City of Montebello

Hazard	Location (Where)	Extent (How Big an Event)	Probability (How Often) *	Previous Occurrences
Earthquake	Entire Project Area	The Southern California Earthquake Center (SCEC) in 2007 concluded that there is a 99.7 % probability that an earthquake of M6.7 or greater will hit California within 30 years.[1]	Moderate	1994 – Northridge Earthquake
Wildfire	North and Eastern boundaries of City	Cities to the east of the City maintain severe FRAP ratings.	Low	None
Flooding	Rio Hondo Flood Control Channel which runs north to south through length of City and San Gabriel River Basin along east side of City	Urban flooding from severe weather.	Moderate	November 2014 - Urban Flooding from heavy rain
Dam Failure	Eastern boundary of City along Rio Hondo Flood Control Channel	Water depth inundation up to 40 feet along Rio Hondo Flood Control Channel	Low	None
Drought	Entire Project Area	Droughts in urban areas vary considerably in scope and intensity. Likely emergency water shortage regulations would restrict such activities as watering of landscape, washing of cars, and other non-safety related activities.	Moderate	None
* Probability is defined as: Low = 1:1,000 years, Moderate = 1:100 years, High = 1:10 years				
[1] Uniform California Earthquake Rupture Forecast				

3) Vulnerability Assessment/Inventory of Existing Assets

A Vulnerability Assessment in its simplest form is a simultaneous look at the geographical location of hazards and an inventory of the underlying land uses (populations, structures, etc.). Facilities that provide critical and essential services following a major emergency are of particular concern because these locations house staff and equipment necessary to provide important public safety, emergency response, and/or disaster recovery functions.

Critical Facilities

FEMA separates critical buildings and facilities into the five categories shown below based on their loss potential. Following are FEMA's definition of the five categories of critical facilities:

> **Essential Facilities** are essential to the health and welfare of the whole population and are especially important following hazard events. Essential facilities include hospitals and other medical facilities, police and fire stations, emergency operations centers and evacuation shelters, and schools.

Transportation Systems include airways – airports, heliports; highways – bridges, tunnels, roadbeds, overpasses, transfer centers; railways – trackage, tunnels, bridges, rail yards, depots; and waterways – canals, locks, seaports, ferries, harbors, drydocks, piers.

Lifeline Utility Systems such as potable water, wastewater, oil, natural gas, electric power and communication systems.

High Potential Loss Facilities are facilities that would have a high loss associated with them, such as nuclear power plants, dams, and military installations.

Hazardous Materials Facilities include facilities housing industrial/hazardous materials, such as corrosives, explosives, flammable materials, radioactive materials, and toxins.

Table: Critical Facilities Vulnerable to Hazards illustrates the hazards with potential to impact critical facilities owned by or providing critical services to the City of Montebello.

Table: Critical Facilities Vulnerable to Hazards

Name of Facility	Earthquake	Wildfire	Flooding	Dam Failure	Drought
ESSENTIAL FACILITIES:					
City Hall 1600 W. Beverly Boulevard	X				X
Montebello Fire Department (Station No. 56) 600 N. Montebello Boulevard	X				X
Montebello Fire Station No. 56 1166 S. Greenwood Avenue	X				X
Montebello Fire Station No. 57 2950 Via Acosta Street	X				X
Montebello Police Department 1600 W. Beverly Boulevard	X				X
Beverly Hospital 309 W. Beverly Boulevard	X				X
TRANSPORTATION SYSTEMS:					
Roads and Bridges	X	X	X	X	X

LIFELINE UTILITY SYSTEMS:					
Water, Electricity, Natural Gas, Oil, and Fuel	**X**	**X**	**X**	**X**	**X**
HIGH POTENTIAL LOSS FACILITIES:					
Whittier Narrows Dam 909 N. Lincoln Avenue	**X**		**X**	**X**	**X**
HAZARDOUS MATERIALS FACILITIES:					
This information is maintained by the City of Montebello Fire Department and is available upon request.					

4) Risk Analysis

Estimating potential losses involves assessing the damage, injuries, and financial costs likely to be sustained in a geographic area over a given period of time. This level of analysis involves using mathematical models. The two measurable components of risk analysis are magnitude of the harm that may result and the likelihood of the harm occurring. Describing vulnerability in terms of dollar losses provides the community and the state with a common framework in which to measure the effects of hazards on assets. For each hazard where data was available, quantitative estimates for potential losses have been included in the hazard assessment. Data was not available to make vulnerability determinations in terms of dollar losses for all of the identified hazards. The **Mitigation Actions Matrix** includes an action item to conduct such an assessment in the future.

5) Assessing Vulnerability/ Analyzing Development Trends

This step provides a general description of City facilities and contents in relation to the identified hazards so that mitigation options can be considered in land use planning and future land use decisions. This Mitigation Plan provides comprehensive description of the character of the City of Montebello in the **Community Profile Section**. This description includes the geography and environment, population and demographics, land use and development, housing and community development, employment and industry, and transportation and commuting patterns. Analyzing these components of the City of Montebello can help in identifying potential problem areas and can serve as a guide for incorporating the goals and ideas contained in this mitigation plan into other community development plans.

Hazard assessments are subject to the availability of hazard-specific data. Gathering data for a hazard assessment requires a commitment of resources on the part of participating organizations and agencies. Each hazard-specific section of the plan includes a section on hazard identification using data and information from City, County, state, or federal sources.

Regardless of the data available for hazard assessments, there are numerous strategies the City can take to reduce risk. These strategies are described in the action items detailed in the Mitigation Actions Matrix in the **Mitigation Strategies Section**. Mitigation strategies can further reduce disruption to critical services, reduce the risk to human life, and alleviate damage to personal and public property and infrastructure.

Land and Development

The City of Montebello General Plan provides the framework for the growth and development of the City. This Plan is one of the City's most important tools in addressing environmental challenges including transportation and air quality; growth management; conservation of natural resources; clean water and open spaces. The land use composition of the City is approximately 70% residential and 30% mixed use/commercial/industrial.

Q&A | ELEMENT A: PLANNING PROCESS | D1

Q: D1. Was the plan revised to reflect changes in development? (Requirement §201.6(d)(3))

A: See **Changes in Development** below.

Changes in Development

Since the adoption of the 2004 Plan, there have been no significant alterations to the development pattern of the City in the hazard prone areas. This conclusion was reached after a thorough review of the General Plan and discussion with the Planning Team.

Impacts to Types of Land Uses

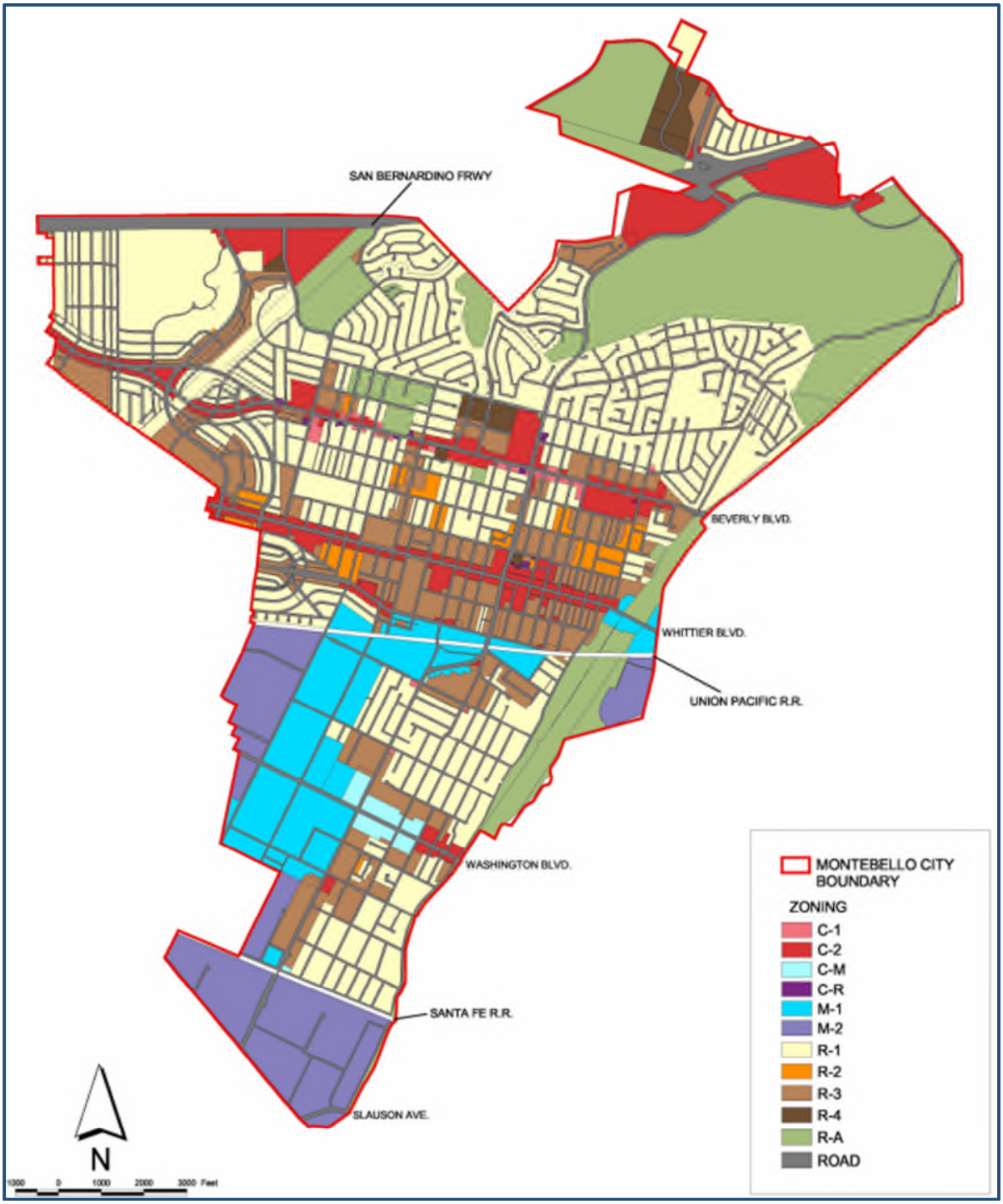
City of Montebello's General Plan identifies a range of land uses as shown below.

Table: Impacts to Existing and Future Land Uses in the City of Montebello (Source: EPC Analysis Based on City of Montebello General Plan – Land Use Element)

Category of Land Use Designation	Earthquake	Wildfire	Flooding	Dam Failure	Drought
Residential					
R-1 Low-Density Residential	X	X	X	X	X
R-2 Medium-Density Residential	X	X			X
R-3 High-Density Residential	X		X	X	X
R-4 Very High-Density Residential	X				X
R-A Mixed Use	X	X	X	X	X
Commercial					
C-1 Neighborhood Commercial	X				X
C-2 General Commercial	X				X
C-M Heavy Commercial	X				X
C-R Commercial Restricted	X				X
Manufacturing					

M-1 Light Manufacturing	X			X	X
M-2 Heavy Manufacturing	X			X	X

Map: City of Montebello Zoning Map
(Source: City of Montebello)



Earthquake Hazards

Previous Occurrences of Earthquakes in the City of Montebello

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B2

Q: B2. Does the Plan include information on previous occurrences of hazard events and on the probability of future hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))

A: See **Previous Occurrences of Earthquakes in the City of Montebello** below.

On June 12, 1989 the magnitude 4.9 Montebello Earthquake struck the community resulting in minimal damage.

Also, the magnitude 6.7 Northridge Earthquake occurred in 1994 impacting Montebello and the surrounding region.



In January 1994, the magnitude 6.7 Northridge Earthquake (thrust fault) which produced severe ground motion, caused 57 deaths, 9,253 injuries and left over 20,000 displaced. Scientists have stated that such devastating shaking should be considered the norm near any large thrust earthquake. Recent reports from scientists of the U.S. Geological Survey and the Southern California Earthquake Center say that the Los Angeles Area could expect one earthquake every year of magnitude 5.0 or more for the foreseeable future.

Since the writing of the 2004 Mitigation Plan, there have been no significant earthquake events impacting the City of Montebello.

Previous Occurrences of Earthquakes in Los Angeles County

Southern California has a history of powerful and relatively frequent earthquakes, dating back to the powerful magnitude 8.0+ 1857 San Andreas Earthquake which did substantial damage to the relatively few buildings that existed at the time.

Paleoseismological research indicates that large magnitude (8.0+) earthquakes occur on the San Andreas Fault at intervals between 45 and 332 years with an average interval of 140 years. Other lesser faults have also caused very damaging earthquakes since 1857. Notable earthquakes include the 1933 Long Beach Earthquake, the 1971 San Fernando Earthquake, the 1987 Whittier Earthquake and the 1994 Northridge Earthquake.

Local Conditions

According to the City's General Plan, Montebello does not contain an active fault identified within its boundaries. Thus, the City is not required to withhold permit issuance or require geologic investigations to demonstrate structural safety associated with fault rupture. However,

since Montebello is located close to the Whittier Fault and atop several blind thrust faults, all structures must abide by seismic reinforcement requirements of the City's Building Code.

Earthquakes that could affect the City would most likely originate from the Newport-Inglewood, San Andreas, Whittier, Puente Hills, or Sierra Madre Faults. These faults are close enough in proximity or expected to generate strong enough shaking that could significantly impact the City.

Map: Regional Faults plots the various major faults located closest to the City of Montebello, the closest being the Whittier Fault Zone.

Newport-Inglewood Fault Zone

The Newport-Inglewood Fault Zone lies approximately 14 miles southwest of Montebello. The Newport-Inglewood Fault System is a nearly linear alignment of faults extending 45 miles along the southwestern side of the Los Angeles basin. It can be traced as a series of topographic hills, ridges, and mesas from the Santa Monica Mountains to Newport Beach, where it trends offshore. Structures along the zone of deformation act as groundwater barriers and, at greater depths, as petroleum traps. Continuing seismic activity has been evidenced most prominently in recent times by the 1920 Inglewood and 1933 Long Beach earthquakes.

San Andreas Fault Zone

The San Andreas Fault Zone is located approximately 34 miles northeast of the City of Montebello. This fault zone extends from the Gulf of California northward to the Cape Mendocino area where it continues northward along the ocean floor. The total length of the San Andreas Fault Zone is approximately 750 miles. The activity of the fault has been recorded during historic events, including the 1906 (M8.0) event in San Francisco and the 1857 (M7.9) event between Cholame and San Bernardino, where at least 250 miles of surface rupture occurred. These seismic events are among the most significant earthquakes in California history. Geologic evidence suggests that the San Andreas Fault has a 50 percent chance of producing a magnitude 7.5 to 8.5 earthquake (comparable to the great San Francisco earthquake of 1906) within the next 30 years.

Whittier Fault Zone

The Whittier fault zone lies approximately 7 miles southeast of Montebello. The Whittier Fault is a 25 mile right-lateral strike-slip fault that runs along the Chino Hills range between the cities of Chino Hills and Whittier. It is estimated that this fault could generate up to a magnitude 7.2 earthquake.

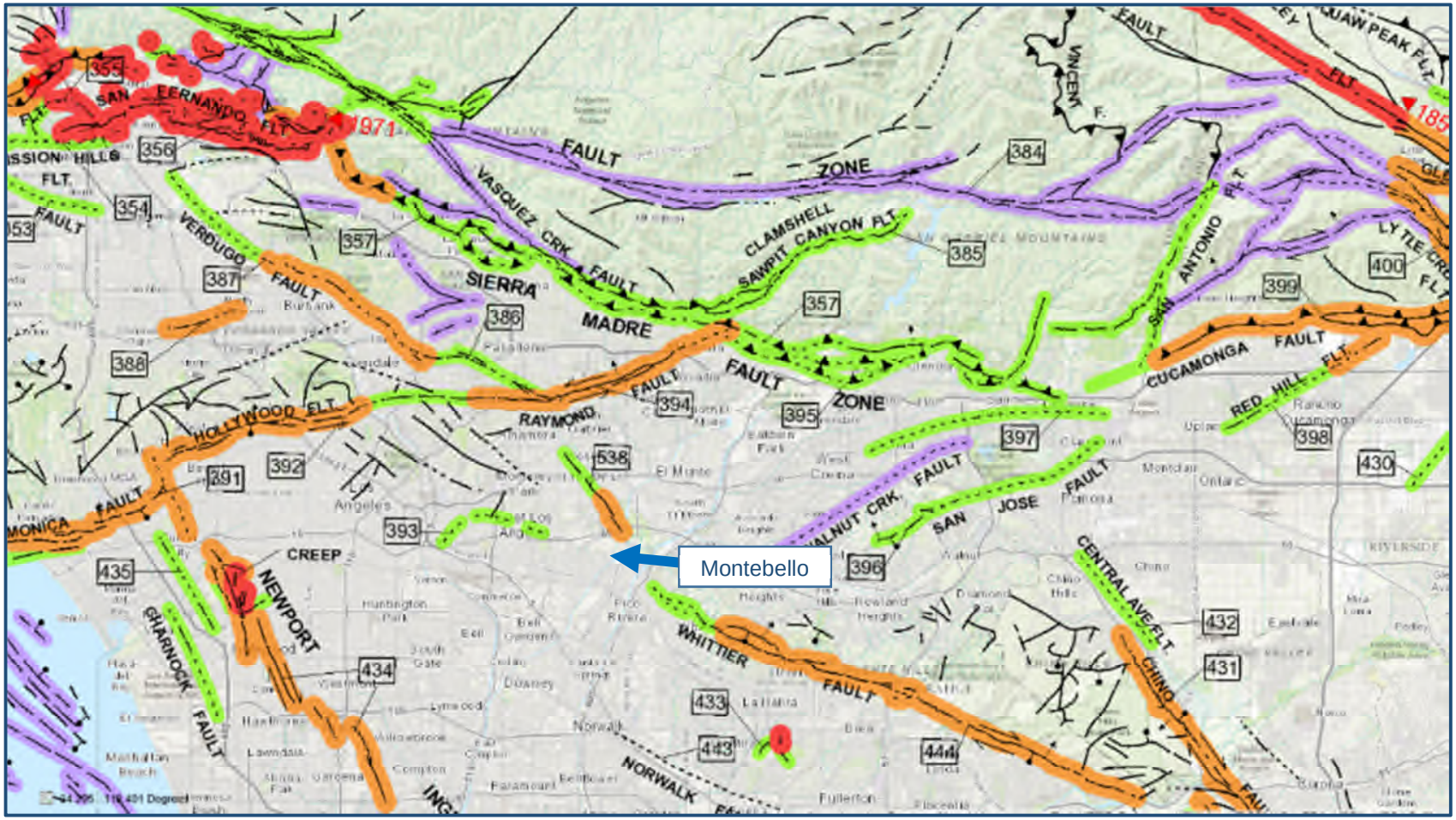
Puente Hills Fault Zone

The Puente Hills Fault is located approximately 8 miles south of the City. According to USGS, the Puente Hills Fault was most recently responsible for the M5.1 La Habra earthquake on March 28, 2014 which caused an estimated $2.6 million in damage. The USGS estimates that a future, larger M7.5 earthquake along the Puente Hills Fault could kill 3,000 to 18,000 people and cause up to $250 billion in Southern California region. In contrast, a larger M8.0 quake along the San Andreas would cause an estimated 1,800 deaths.

Sierra Madre Fault Zone

The Sierra Madre Fault Zone lies approximately 12 miles northeast of Montebello. This fault zone is a series of moderate angle, north-dipping, reverse faults (thrust faults). Movement along these frontal faults has resulted in the uplift of the San Gabriel Mountains. According to the Southern California Earthquake Data Center, rupture on the Sierra Madre Fault Zone (theoretically) could be limited to one segment at a time, it has recently been suggested that a large event on the San Andreas Fault to the north (like that of 1857) could cause simultaneous rupture on reverse faults south of the San Gabriel Mountains – the Sierra Madre Fault Zone being a prime example of such. Whether this could rupture multiple Sierra Madre Fault Zone segments simultaneously is unknown. Seismic activity on the Sierra Madre Fault is expected to have a maximum magnitude of 7.2.

Map: Regional Faults
(Source: State of California Department of Conservation)



Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B3

Q: B3. Is there a description of each identified hazard's impact on the community as well as an overall summary of the community's vulnerability for each jurisdiction? (Requirement §201.6(c)(2)(ii))

A: See **Impact of Earthquakes in the City of Montebello** below.

Impact of Earthquakes in the City of Montebello

Based on the risk assessment, it is evident that earthquakes will continue to have potentially devastating economic impacts to certain areas of the City. Impacts that are not quantified, but can be anticipated in future events, include:

- ✓ Injury and loss of life;
- ✓ Commercial and residential structural damage;
- ✓ Disruption of and damage to public infrastructure;
- ✓ Secondary health hazards e.g. mold and mildew;
- ✓ Damage to roads/bridges resulting in loss of mobility;
- ✓ Significant economic impact (jobs, sales, tax revenue) upon the community;
- ✓ Negative impact on commercial and residential property values; and
- ✓ Significant disruption to students and teachers as temporary facilities and relocations would likely be needed.

Earthquake-Induced Landslides

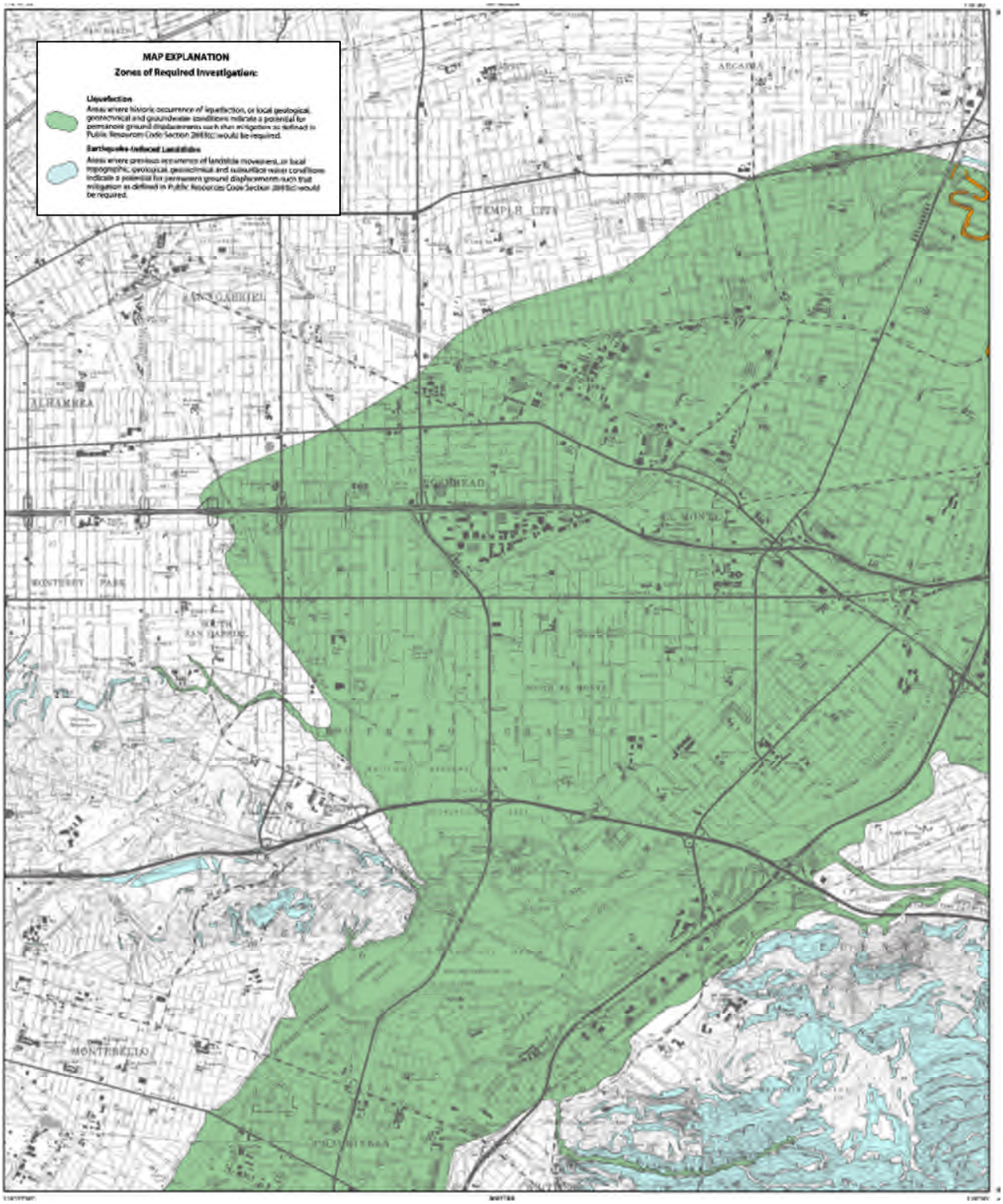
Earthquake-induced landslides are secondary earthquake hazards that occur from ground shaking. They can destroy the roads, buildings, utilities, and other critical facilities necessary to respond and recover from an earthquake. Many communities in Southern California have a high likelihood of encountering such risks, especially in areas with steep slopes.

Liquefaction

Liquefaction is a phenomenon in which the strength and stiffness of a soil is reduced by earthquake shaking or other events. Liquefaction occurs in saturated soils, which are soils in which the space between individual soil particles is completely filled with water. This water exerts a pressure on the soil particles that influences how tightly the particles themselves are pressed together. Prior to an earthquake, the water pressure is relatively low. However, earthquake shaking can cause the water pressure to increase to the point where the soil particles can readily move with respect to each other. Because liquefaction only occurs in saturated soil, its effects are most commonly observed in low lying areas. Typically, liquefaction is associated with shallow groundwater, which is less than 50 feet beneath the earth's surface. According to the City of Montebello General Plan, areas of Montebello that may be subject to potential liquefaction are located along the eastern boundary of the City, parallel to the Rio Hondo River.

Map: Landslide and Liquefaction Zones shows the moderate risk of earthquake-induced landslide and liquefaction risk within the City.

Map: Landslide and Liquefaction Zones in Montebello
(Source: California Department of Conservation)



Exposure

The data in this section was generated using the Hazards United States – Multi Hazard (HAZUS-MH) software program. Once the location and size of a hypothetical earthquake are identified, HAZUS-MH estimates the intensity of the ground shaking, the number of buildings damaged, the number of casualties, the amount of damage to transportation systems and utilities, the number of people displaced from their homes, and the estimated cost of repair and clean up.

Building Inventory

HAZUS estimates approximately 90% of the building stock within the City of Montebello is residential housing. In terms of building construction types found in the region, wood frame construction makes up 88% of the building inventory.

Critical Facility Inventory

HAZUS breaks critical facilities into two (2) groups: essential facilities and high potential loss facilities (HPL). Essential facilities include hospitals, medical clinics, schools, fire stations, police stations and emergency operations facilities. High potential loss facilities include dams, levees, military installations, nuclear power plants and hazardous material sites.

Table: Critical Facility Inventory – HAZUS

Essential Facilities	Count
Hospitals	1
Schools	21
Fire Stations	1
Police Stations	1
Emergency Operations Facilities	0

High Potential Loss (HPL) Facilities	Count
Dams	0
Levees	0
Military Installations	0
Nuclear Power Plants	0
Hazardous Material Sites	18

Transportation and Utility Lifeline Inventory

Within HAZUS, the lifeline inventory is divided between transportation and utility lifeline systems. Transportation systems include highways, railways, light rail, bus, ports, ferry and airports. Utility systems include potable water, wastewater, natural gas, crude & refined oil, electric power and communications.

Casualties

HAZUS estimates the number of people that will be injured and killed by the earthquake. The casualties are broken down into four (4) severity levels that describe the extent of the injuries. The levels are described as follows:

- ✓ **Severity Level 1:** Injuries will require medical attention but hospitalization is not needed.
- ✓ **Severity Level 2:** Injuries will require hospitalization but are not considered life-threatening
- ✓ **Severity Level 3:** Injuries will require hospitalization and can become life threatening if not promptly treated.
- ✓ **Severity Level 4:** Victims are killed by the earthquake.

The casualty estimates are provided for three (3) times of day: 2:00 AM, 2:00 PM and 5:00 PM. These times represent the periods of the day that different sectors of the community are at their peak occupancy loads. The 2:00 AM estimate considers that the residential occupancy load is maximum, the 2:00 PM estimate considers that the educational, commercial and industrial sector loads are maximum and 5:00 PM represents peak commute time.

Building-Related Losses

Building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the earthquake. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the earthquake.

HAZUS Earthquake Event Summary Results

Newport-Inglewood M7.1 Earthquake Scenario

Building Damage

Table: Expected Building Damage by Occupancy – Newport-Inglewood M7.1

	None	Slight	Moderate	Extensive	Complete
	Count	Count	Count	Count	Count
Agriculture	8	2	1	0	0
Commercial	761	199	109	20	2
Education	26	6	2	0	0
Government	10	2	1	0	0
Industrial	148	43	27	5	0
Other Residential	995	302	113	20	1
Religion	62	15	7	1	0
Single Family	8,975	2,381	373	12	3
Total	**10,986**	**2,949**	**635**	**59**	**7**

Table: Expected Building Damage by Building Type – Newport-Inglewood M7.1

	None	Slight	Moderate	Extensive	Complete
	Count	Count	Count	Count	Count
Wood	9,796	2,624	411	12	4
Steel	231	59	40	7	1
Concrete	224	62	30	6	0
Precast	188	55	41	9	0
RM	384	65	43	9	0
URM	61	22	14	3	1
MH	102	62	57	13	1
Total	**10,986**	**2,949**	**635**	**59**	**7**

Transportation and Utility Lifeline Damage

Table: Expected Utility System Pipeline Damage – Newport-Inglewood M7.1

System	Total Pipelines (Length km)	Number of Leaks	Number of Breaks
Potable Water	2,555	98	25
Waste Water	1,533	70	18
Natural Gas	1,022	20	5
Oil	0	0	0

Table: Potable Water and Electric Power System Performance – Newport-Inglewood M7.1

	Total # of Households	Number of Households without Service				
		At Day 1	At Day 3	At Day 7	At Day 30	At Day 90
Potable Water	**19,552**	0	0	0	0	0
Electric Power		0	0	0	0	0

Shelter Requirement

HAZUS estimates the number of households that are expected to be displaced from their homes due to the earthquake and the number of displaced people that will require accommodations in temporary public shelters. The model estimates 60 households to be displaced due to the earthquake. Of these, 58 people (out of a total population of 64,394) will seek temporary shelter in public shelters.

Casualties

The table below represents a summary of casualties estimated for Newport-Inglewood M7.1 earthquake scenario.

Table: Casualty Estimates – Newport-Inglewood M7.1

Time	Sector	Level 1	Level 2	Level 3	Level 4
2AM	Commercial	0	0	0	0
	Commuting	0	0	0	0
	Educational	0	0	0	0
	Hotels	0	0	0	0
	Industrial	0	0	0	0
	Other-Residential	7	1	0	0
	Single-Family	9	1	0	0
	TOTAL	**16**	**2**	**0**	**0**
2PM	Commercial	14	2	0	0
	Commuting	0	0	0	0
	Educational	5	1	0	0
	Hotels	0	0	0	0
	Industrial	3	0	0	0
	Other-Residential	2	0	0	0
	Single-Family	2	0	0	0
	TOTAL	**26**	**3**	**0**	**0**
5PM	Commercial	10	1	0	0
	Commuting	0	0	0	0
	Educational	0	0	0	0
	Hotels	0	0	0	0
	Industrial	2	0	0	0
	Other-Residential	3	0	0	0
	Single-Family	3	0	0	0
	TOTAL	**18**	**1**	**0**	**0**

Economic Losses

The total economic loss estimated for the Newport-Inglewood M7.1 earthquake scenario is **$137.45 million dollars** which includes building and lifeline related losses based on the region's available inventory. The following tables provide more detailed information about these losses.

Table: Building-Related Economic Losses ($ Dollars) – Newport-Inglewood M7.1

Category	Area	Single Family	Other Residential	Commercial	Industrial	Others	Total
Income Losses	Wage	$0	$120,200	$2,993,400	$300,200	$132,700	$3,546,500
	Capital-Related	$0	$51,100	$2,298,100	$182,300	$34,800	$2,566,300
	Rental	$514,800	$1,135,800	$1,985,200	$124,800	$49,600	$3,810,200
	Relocation	$1,770,600	$867,700	$2,969,500	$488,000	$454,100	$6,549,900
	Subtotal	**$2,285,400**	**$2,174,800**	**$10,246,200**	**$1,095,300**	**$671,200**	**$16,472,900**
Capital Stock Losses	Structural	$4,894,500	$2,294,100	$5,408,100	$1,787,100	$600,500	$14,984,300
	Non-Structural	$27,429,500	$17,688,800	$16,943,700	$7,768,500	$2,731,100	$72,561,600
	Content	$8,780,900	$4,668,700	$9,553,200	$5,666,700	$1,477,900	$30,147,400
	Inventory	$0	$0	$370,200	$1,089,900	$2,900	$1,463,000
	Subtotal	**$41,104,900**	**$24,651,600**	**$32,275,200**	**$16,312,200**	**$4,812,400**	**$119,156,300**
	TOTAL	**$43,390,300**	**$26,826,400**	**$42,521,400**	**$17,407,500**	**$5,483,600**	**$135,629,200**

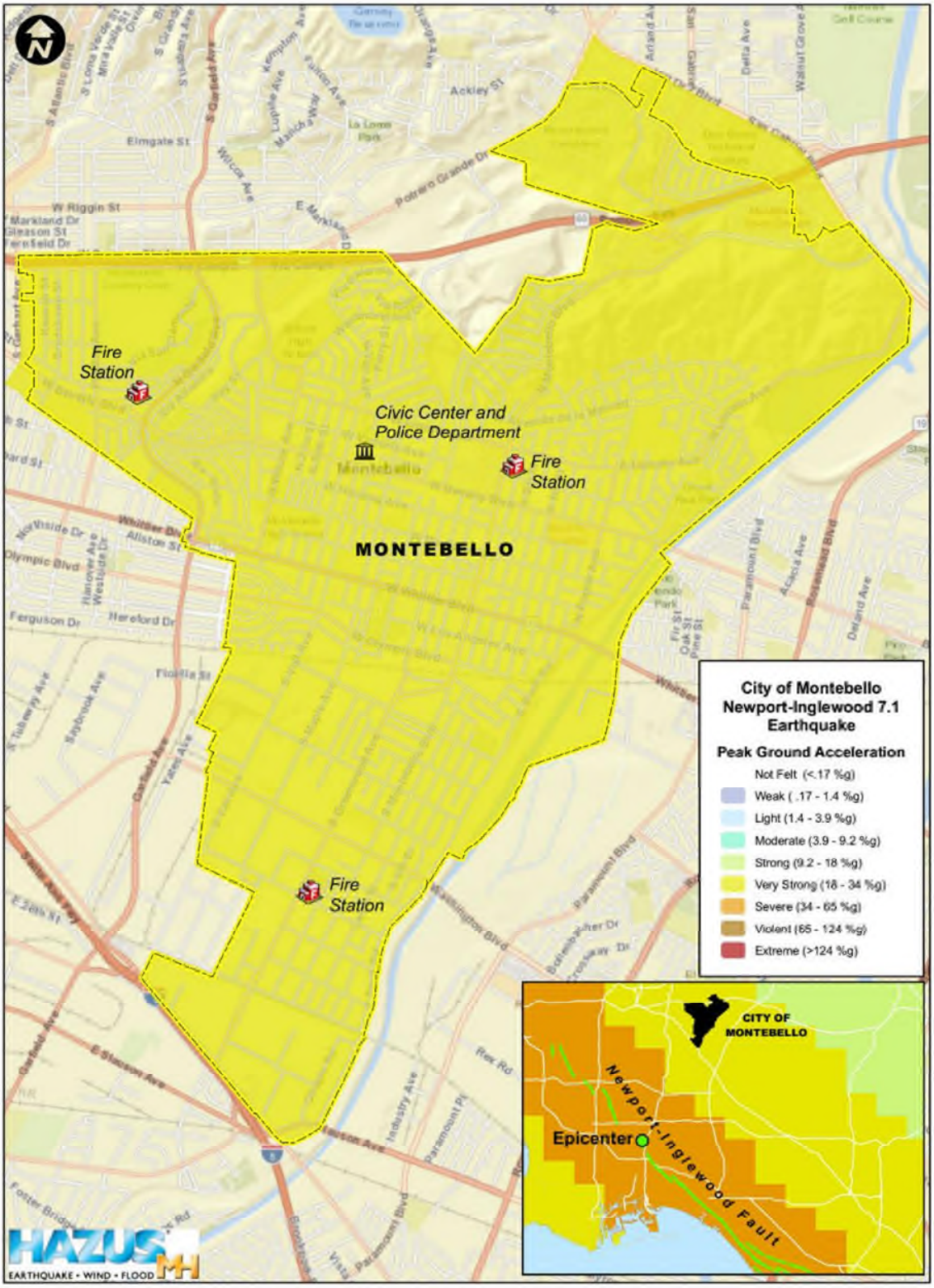
Table: Transportation System Economic Losses ($ Dollars) – Newport-Inglewood M7.1

System	Component	Total Inventory Value	Economic Loss	Loss Ratio %
Highway	Segments	$389,155,800	$0	0%
	Bridges	$37,540,300	$414,500	1%
	Tunnels	$0	$0	0%
Railways	Segments	$7,156,200	$0	0%
	Bridges	$102,600	$600	1%
	Tunnels	$0	$0	0%
	Facilities	$2,663,000	$556,000	20%
Light Rail	Segments	$36,013,100	$0	0%
	Bridges	$0	$0	0%
	Tunnels	$0	$0	0%
	Facilities	$0	$0	0%
Bus	Facilities	$0	$0	0%
Ferry	Facilities	$0	$0	0%
Port	Facilities	$0	$0	0%
Airport	Facilities	$0	$0	0%
	TOTAL	**$472,631,000**	**$971,100**	

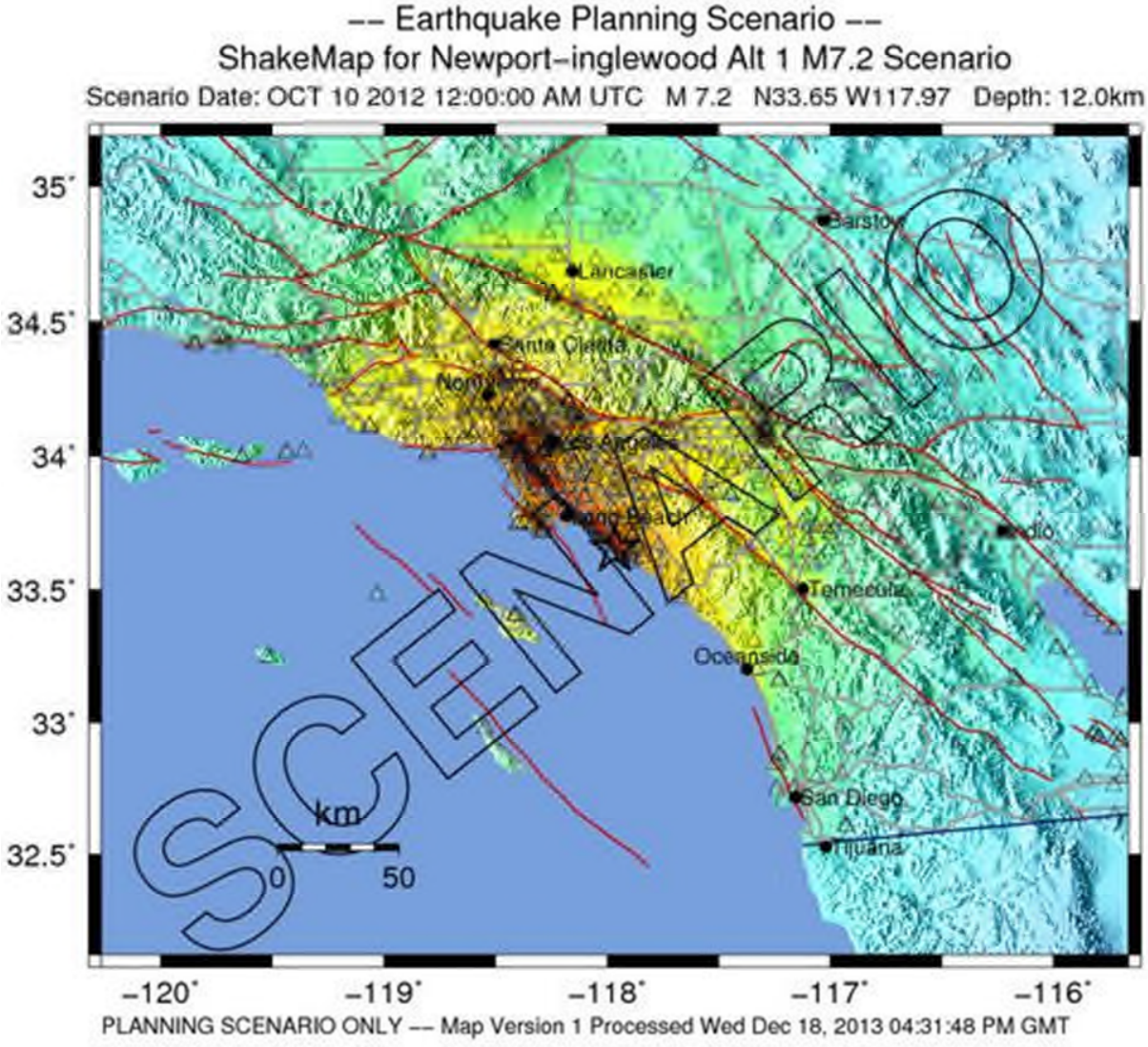
Table: Utility System Economic Losses ($ Dollars) – Newport-Inglewood M7.1

System	Component	Total Inventory Value	Economic Loss	Loss Ratio %
Potable Water	Pipelines	$0	$0	0%
	Facilities	$0	$0	0%
	Distribution Lines	$51,096,200	$442,200	1%
Waste Water	Pipelines	$0	$0	0%
	Facilities	$0	$0	0%
	Distribution Lines	$30,657,700	$316,900	1%
Natural Gas	Pipelines	$0	$0	0%
	Facilities	$0	$0	0%
	Distribution Lines	$20,438,500	$90,900	1%
Oil Systems	Pipelines	$0	$0	0%
	Facilities	$0	$0	0%
Electrical Power	Facilities	$0	$0	0%
Communication	Facilities	$0	$0	0%
	TOTAL	**$102,192,400**	**$850,000**	

Map: Shake Intensity Map – Newport-Inglewood M7.1
(Source: Emergency Planning Consultants)



Map: Seismic Shaking Intensities for the Newport-Inglewood M7.2
(Source: State of California Department of Conservation)



PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Mod./Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	*<0.1*	*0.5*	*2.4*	*6.7*	*13*	24	44	83	>156
PEAK VEL.(cm/s)	<0.07	0.4	1.9	5.8	*11*	*22*	*43*	*83*	*>160*
INSTRUMENTAL INTENSITY	I	II–III	IV	V	VI	VII	VIII	IX	X+

Scale based upon Wald, et al.; 1999

San Andreas M8.0 Earthquake Scenario

Building Damage

Table: Expected Building Damage by Occupancy – San Andreas M8.0

	None	Slight	Moderate	Extensive	Complete
	Count	Count	Count	Count	Count
Agriculture	5	3	2	1	1
Commercial	455	276	171	97	93
Education	18	9	3	2	2
Government	7	3	2	1	2
Industrial	88	55	37	20	24
Other Residential	784	379	159	58	52
Religion	40	22	11	6	7
Single Family	7,983	3,579	181	1	0
Total	**9,379**	**4,326**	**566**	**184**	**181**

Table: Expected Building Damage by Building Type – San Andreas M8.0

	None	Slight	Moderate	Extensive	Complete
	Count	Count	Count	Count	Count
Wood	8,701	3,891	206	32	16
Steel	85	84	99	35	35
Concrete	135	85	33	25	45
Precast	119	88	53	14	19
RM	300	96	43	30	31
URM	33	35	27	6	1
MH	8	47	104	43	34
Total	**9,379**	**4,326**	**566**	**184**	**181**

Transportation and Utility Lifeline Damage

Table: Expected Utility System Pipeline Damage – San Andreas M8.0

System	Total Pipelines (Length km)	Number of Leaks	Number of Breaks
Potable Water	2,555	53,757	13,439
Waste Water	1,533	38,526	9,632
Natural Gas	1,022	11,050	2,763
Oil	0	0	0

Table: Potable Water and Electric Power System Performance – San Andreas M8.0

	Total # of Households	Number of Households without Service				
		At Day 1	At Day 3	At Day 7	At Day 30	At Day 90
Potable Water	**19,552**	19,552	19,552	19,552	19,552	19,552
Electric Power		0	0	0	0	0

Shelter Requirement

HAZUS estimates the number of households that are expected to be displaced from their homes due to the earthquake and the number of displaced people that will require accommodations in temporary public shelters. The model estimates 298 households to be displaced due to the earthquake. Of these, 271 people (out of a total population of 64,394) will seek temporary shelter in public shelters.

Casualties

The table below represents a summary of casualties estimated for San Andreas M8.0 earthquake scenario.

Table: Casualty Estimates – San Andreas M8.0

Time	Sector	Level 1	Level 2	Level 3	Level 4
2AM	Commercial	3	1	0	0
	Commuting	0	0	0	0
	Educational	0	0	0	0
	Hotels	0	0	0	0
	Industrial	5	1	0	0
	Other-Residential	57	17	3	6
	Single-Family	11	1	0	0
	TOTAL	**76**	**20**	**3**	**6**
2PM	Commercial	187	57	10	19
	Commuting	0	0	1	0
	Educational	76	24	4	8
	Hotels	0	0	0	0
	Industrial	36	11	2	3
	Other-Residential	13	4	1	1
	Single-Family	2	0	0	0
	TOTAL	**316**	**97**	**17**	**33**
5PM	Commercial	132	40	7	13
	Commuting	4	5	9	2
	Educational	8	2	0	1
	Hotels	0	0	0	0
	Industrial	23	7	1	2
	Other-Residential	22	6	1	2
	Single-Family	4	0	0	0
	TOTAL	**192**	**61**	**19**	**20**

Economic Losses

The total economic loss estimated for the San Andreas M8.0 earthquake scenario is **$936.08 million dollars** which includes building and lifeline related losses based on the region's available inventory. The following tables provide more detailed information about these losses.

Table: Building-Related Economic Losses ($ Dollars) – San Andreas M8.0

Category	Area	Single Family	Other Residential	Commercial	Industrial	Others	Total
Income Losses	Wage	$0	$1,072,100	$17,255,100	$1,247,900	$760,700	$20,335,800
	Capital-Related	$0	$455,000	$13,868,100	$757,100	$206,900	$15,287,100
	Rental	$334,400	$3,505,900	$8,260,200	$438,500	$328,100	$12,867,100
	Relocation	$810,800	$2,221,200	$12,303,500	$1,555,400	$2,948,600	$19,839,500
	Subtotal	**$1,145,200**	**$7,254,200**	**$51,686,900**	**$3,998,900**	**$4,244,300**	**$68,329,500**
Capital Stock Losses	Structural	$5,072,900	$7,120,200	$28,774,700	$9,039,600	$4,529,800	$54,537,200
	Non-Structural	$41,589,300	$47,615,200	$86,829,700	$36,377,600	$16,822,700	$229,234,500
	Content	$20,444,400	$13,148,000	$41,387,200	$24,388,200	$7,854,700	$107,222,500
	Inventory	$0	$0	$1,433,300	$4,893,800	$16,100	$6,343,200
	Subtotal	**$67,106,600**	**$67,883,400**	**$158,424,900**	**$74,699,200**	**$29,223,300**	**$397,337,400**
	TOTAL	**$68,251,800**	**$75,137,600**	**$210,111,800**	**$78,698,100**	**$33,467,600**	**$465,666,900**

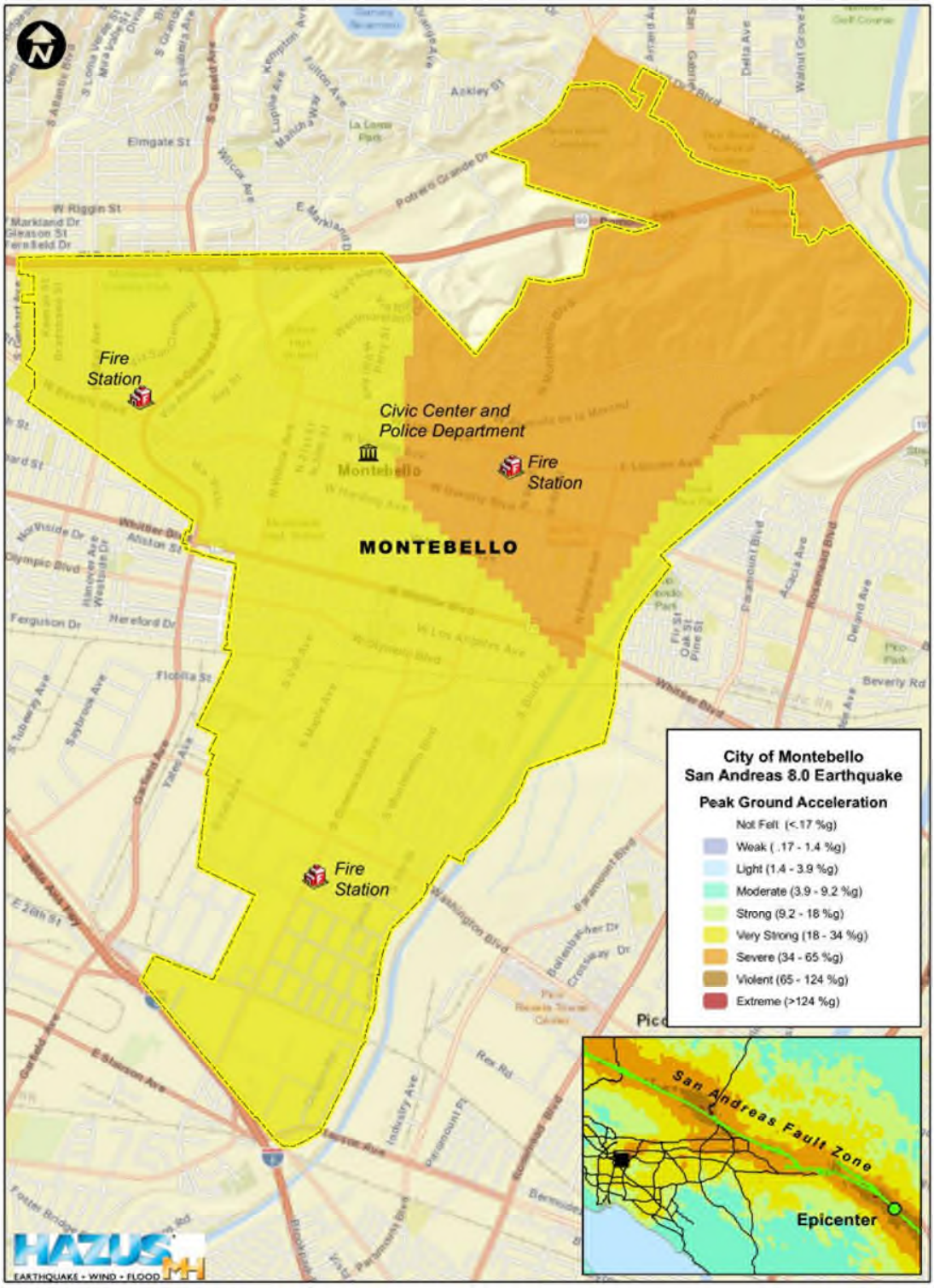
Table: Transportation System Economic Losses ($ Dollars) – San Andreas M8.0

System	Component	Total Inventory Value	Economic Loss	Loss Ratio %
Highway	Segments	$389,155,800	$0	0%
	Bridges	$37,540,300	$4,691,800	13%
	Tunnels	$0	$0	0%
Railways	Segments	$7,156,200	$0	0%
	Bridges	$102,600	$7,300	7%
	Tunnels	$0	$0	0%
	Facilities	$2,663,000	$708,800	27%
Light Rail	Segments	$36,013,100	$0	0%
	Bridges	$0	$0	0%
	Tunnels	$0	$0	0%
	Facilities	$0	$0	0%
Bus	Facilities	$0	$0	0%
Ferry	Facilities	$0	$0	0%
Port	Facilities	$0	$0	0%
Airport	Facilities	$0	$0	0%
	TOTAL	**$472,631,000**	**$5,407,900**	

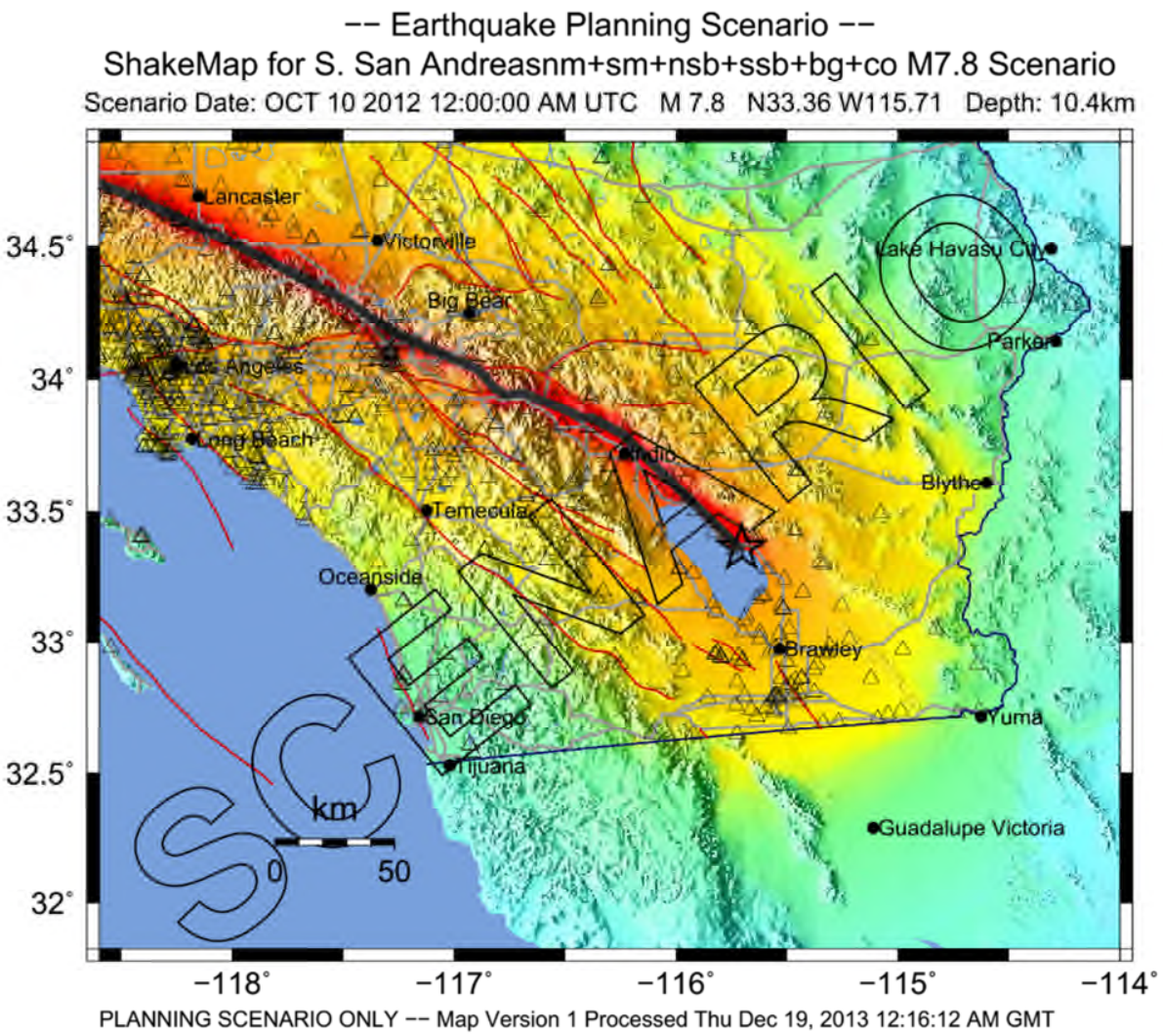
Table: Utility System Economic Losses ($ Dollars) – San Andreas M8.0

System	Component	Total Inventory Value	Economic Loss	Loss Ratio %
Potable Water	Pipelines	$0	$0	0%
	Facilities	$0	$0	0%
	Distribution Lines	$51,096,200	$241,908,300	0%
Waste Water	Pipelines	$0	$0	0%
	Facilities	$0	$0	0%
	Distribution Lines	$30,657,700	$173,367,600	0%
Natural Gas	Pipelines	$0	$0	0%
	Facilities	$0	$0	0%
	Distribution Lines	$20,438,500	$49,725,600	0%
Oil Systems	Pipelines	$0	$0	0%
	Facilities	$0	$0	0%
Electrical Power	Facilities	$0	$0	0%
Communication	Facilities	$0	$0	0%
	TOTAL	**$102,192,400**	**$465,001,500**	

Map: Shake Intensity Map – San Andreas M8.0
(Source: Emergency Planning Consultants)



Map: Seismic Shaking Intensities for the San Andrea Fault M7.8
(Source: State of California Department of Conservation)



PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Mod./Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	*<0.1*	*0.5*	*2.4*	*6.7*	*13*	24	44	83	>156
PEAK VEL.(cm/s)	<0.07	0.4	1.9	5.8	*11*	*22*	*43*	*83*	*>160*
INSTRUMENTAL INTENSITY	I	II–III	IV	V	VI	VII	VIII	IX	X+

Scale based upon Wald, et al., 1999

Whittier M6.8 Earthquake Scenario

Building Damage

Table: Expected Building Damage by Occupancy – Whittier M6.8

	None	Slight	Moderate	Extensive	Complete
	Count	Count	Count	Count	Count
Agriculture	6	4	2	0	0
Commercial	532	368	175	16	0
Education	20	11	3	0	0
Government	8	4	2	0	0
Industrial	100	76	44	5	0
Other Residential	725	493	187	26	1
Religion	46	28	11	1	0
Single Family	7,219	4,276	248	1	0
Total	**8,656**	**5,259**	**672**	**49**	**1**

Table: Expected Building Damage by Building Type – Whittier M6.8

	None	Slight	Moderate	Extensive	Complete
	Count	Count	Count	Count	Count
Wood	7,870	4,700	276	1	1
Steel	153	106	71	7	0
Concrete	157	113	48	5	0
Precast	115	104	67	6	0
RM	313	123	59	5	0
URM	32	40	26	3	0
MH	16	72	124	21	0
Total	**8,656**	**5,259**	**672**	**49**	**1**

Transportation and Utility Lifeline Damage

Table: Expected Utility System Pipeline Damage – Whittier M6.8

System	Total Pipelines (Length km)	Number of Leaks	Number of Breaks
Potable Water	2,555	53,757	13,439
Waste Water	1,533	38,526	9,632
Natural Gas	1,022	11,050	2,763
Oil	0	0	0

Table: Potable Water and Electric Power System Performance – Whittier M6.8

	Total # of Households	Number of Households without Service				
		At Day 1	At Day 3	At Day 7	At Day 30	At Day 90
Potable Water	**19,552**	19,552	19,552	19,552	19,552	19,552
Electric Power		0	0	0	0	0

Shelter Requirement

HAZUS estimates the number of households that are expected to be displaced from their homes due to the earthquake and the number of displaced people that will require accommodations in temporary public shelters. The model estimates 35 households to be displaced due to the earthquake. Of these, 33 people (out of a total population of 64,394) will seek temporary shelter in public shelters.

Casualties

The table below represents a summary of casualties estimated for Whittier M6.8 earthquake scenario.

Table: Casualty Estimates – Whittier M6.8

Time	Sector	Level 1	Level 2	Level 3	Level 4
2AM	Commercial	0	0	0	0
	Commuting	0	0	0	0
	Educational	0	0	0	0
	Hotels	0	0	0	0
	Industrial	0	0	0	0
	Other-Residential	9	1	0	0
	Single-Family	10	0	0	0
	TOTAL	**19**	**1**	**0**	**0**
2PM	Commercial	16	2	0	0
	Commuting	0	0	0	0
	Educational	5	0	0	0
	Hotels	0	0	0	0
	Industrial	3	0	0	0
	Other-Residential	2	0	0	0
	Single-Family	2	0	0	0
	TOTAL	**28**	**2**	**0**	**0**
5PM	Commercial	11	1	0	0
	Commuting	0	0	0	0
	Educational	1	0	0	0
	Hotels	0	0	0	0
	Industrial	2	0	0	0
	Other-Residential	3	0	0	0
	Single-Family	4	0	0	0
	TOTAL	**21**	**1**	**0**	**0**

Economic Losses

The total economic loss estimated for the Whittier M6.8 earthquake scenario is **$646.75 million dollars** which includes building and lifeline related losses based on the region's available inventory. The following tables provide more detailed information about these losses.

Table: Building-Related Economic Losses ($ Dollars) – Whittier M6.8

Category	Area	Single Family	Other Residential	Commercial	Industrial	Others	Total
Income Losses	Wage	$0	$151,300	$3,893,300	$344,200	$194,000	$4,582,800
	Capital-Related	$0	$64,400	$3,059,000	$209,000	$49,600	$3,382,000
	Rental	$421,700	$1,302,400	$2,635,400	$148,200	$65,800	$4,573,500
	Relocation	$1,074,800	$974,800	$3,847,200	$588,100	$592,500	$7,077,400
	Subtotal	**$1,496,500**	**$2,492,900**	**$13,434,900**	**$1,289,500**	**$901,900**	**$19,615,700**
Capital Stock Losses	Structural	$5,995,200	$2,934,200	$6,432,600	$1,984,500	$808,600	$18,155,100
	Non-Structural	$38,585,400	$25,007,600	$21,457,100	$8,815,400	$3,904,600	$97,770,100
	Content	$15,115,900	$7,394,100	$12,396,300	$6,431,800	$2,225,000	$43,563,100
	Inventory	$0	$0	$471,600	$1,226,900	$4,600	$1,703,100
	Subtotal	**$59,696,500**	**$35,335,900**	**$40,757,600**	**$18,458,600**	**$6,942,800**	**$161,191,400**
	TOTAL	**$61,193,000**	**$37,828,800**	**$54,192,500**	**$19,748,100**	**$7,844,700**	**$180,807,100**

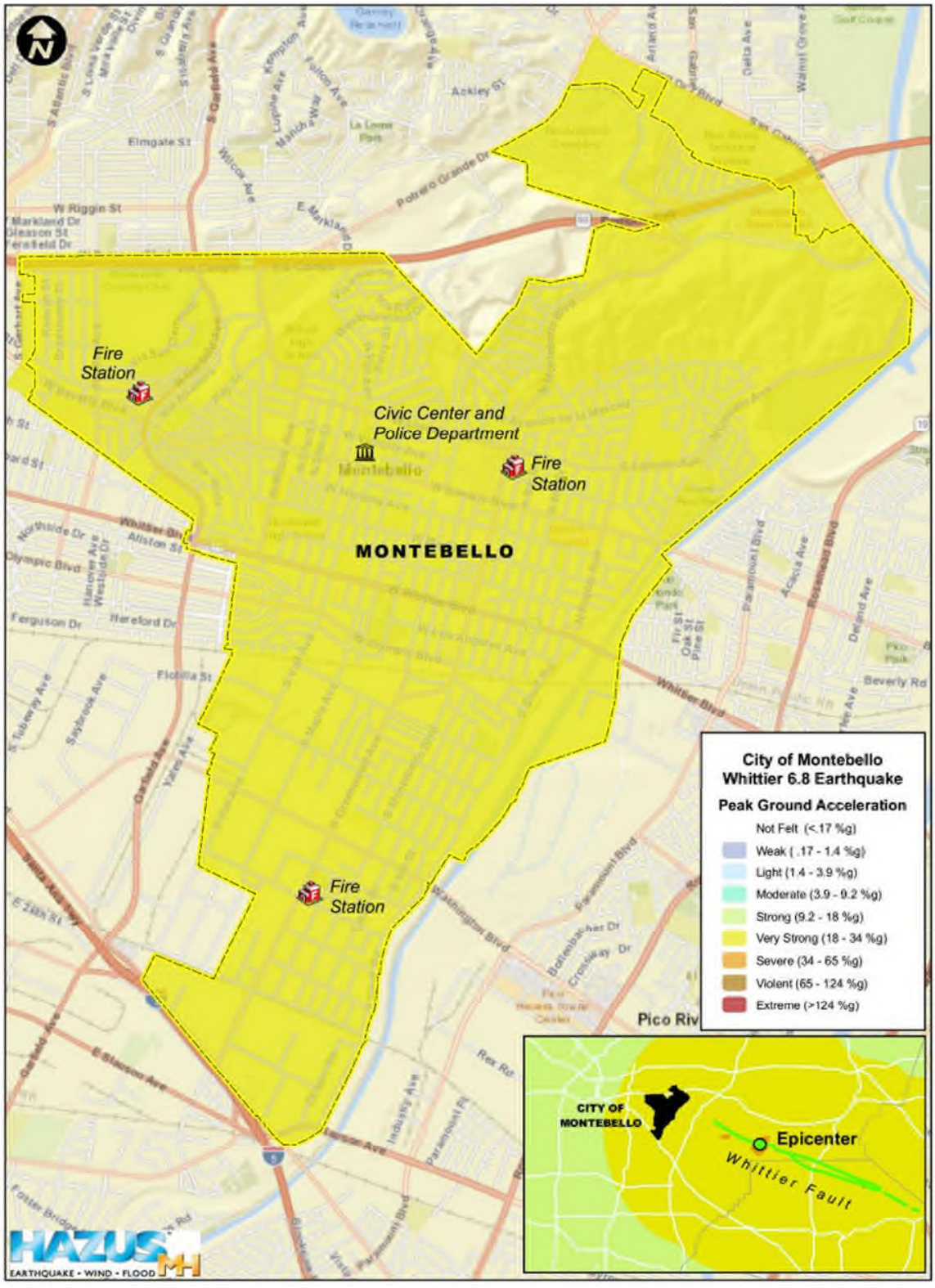
Table: Transportation System Economic Losses ($ Dollars) – Whittier M6.8

System	Component	Total Inventory Value	Economic Loss	Loss Ratio %
Highway	Segments	$389,155,800	$0	0%
	Bridges	$37,540,300	$442,900	1%
	Tunnels	$0	$0	0%
Railways	Segments	$7,156,200	$0	0%
	Bridges	$102,600	$200	1%
	Tunnels	$0	$0	0%
	Facilities	$2,663,000	$497,000	19%
Light Rail	Segments	$36,013,100	$0	0%
	Bridges	$0	$0	0%
	Tunnels	$0	$0	0%
	Facilities	$0	$0	0%
Bus	Facilities	$0	$0	0%
Ferry	Facilities	$0	$0	0%
Port	Facilities	$0	$0	0%
Airport	Facilities	$0	$0	0%
	TOTAL	**$472,631,000**	**$940,100**	

Table: Utility System Economic Losses ($ Dollars) – Whittier M6.8

System	Component	Total Inventory Value	Economic Loss	Loss Ratio %
Potable Water	Pipelines	$0	$0	0%
	Facilities	$0	$0	0%
	Distribution Lines	$51,096,200	$241,908,300	473%
Waste Water	Pipelines	$0	$0	0%
	Facilities	$0	$0	0%
	Distribution Lines	$30,657,700	$173,367,600	565%
Natural Gas	Pipelines	$0	$0	0%
	Facilities	$0	$0	0%
	Distribution Lines	$20,438,500	$49,725,600	243%
Oil Systems	Pipelines	$0	$0	0%
	Facilities	$0	$0	0%
Electrical Power	Facilities	$0	$0	0%
Communication	Facilities	$0	$0	0%
	TOTAL	**$102,192,400**	**$465,001,500**	

Map: Shake Intensity Map – Whittier M6.8
(Source: Emergency Planning Consultants)



Puente Hills M7.1 Earthquake Scenario

Building Damage

Table: Expected Building Damage by Occupancy – Puente Hills M7.1

	None	Slight	Moderate	Extensive	Complete
	Count	Count	Count	Count	Count
Agriculture	4	3	3	1	0
Commercial	310	289	323	136	33
Education	14	10	8	3	0
Government	5	4	3	1	0
Industrial	53	54	72	35	10
Other Residential	469	492	320	120	29
Religion	28	24	22	9	2
Single Family	4,903	4,796	1,863	144	36
Total	**5,786**	**5,674**	**2,615**	**449**	**112**

Table: Expected Building Damage by Building Type – Puente Hills M7.1

	None	Slight	Moderate	Extensive	Complete
	Count	Count	Count	Count	Count
Wood	5,326	5,265	2,057	156	41
Steel	85	75	111	53	13
Concrete	92	92	88	42	9
Precast	65	68	101	48	11
RM	186	112	134	60	8
URM	18	23	32	18	10
MH	15	40	91	71	18
Total	**5,786**	**5,674**	**2,615**	**449**	**112**

Transportation and Utility Lifeline Damage

Table: Expected Utility System Pipeline Damage – Puente Hills M7.1

System	Total Pipelines (Length km)	Number of Leaks	Number of Breaks
Potable Water	2,555	506	126
Waste Water	1,533	362	91
Natural Gas	1,022	104	26
Oil	0	0	0

Table: Potable Water and Electric Power System Performance – Puente Hills M7.1

	Total # of Households	Number of Households without Service				
		At Day 1	At Day 3	At Day 7	At Day 30	At Day 90
Potable Water	**19,552**	2,711	582	0	0	0
Electric Power		7,390	4,102	1,435	237	11

Shelter Requirement

HAZUS estimates the number of households that are expected to be displaced from their homes due to the earthquake and the number of displaced people that will require accommodations in temporary public shelters. The model estimates 521 households to be displaced due to the earthquake. Of these, 507 people (out of a total population of 64,394) will seek temporary shelter in public shelters.

Casualties

The table below represents a summary of casualties estimated for the Puente Hills M7.1 earthquake scenario.

Table: Casualty Estimates – Puente Hills M7.1

Time	Sector	Level 1	Level 2	Level 3	Level 4
2AM	Commercial	2	0	0	0
	Commuting	0	0	0	0
	Educational	0	0	0	0
	Hotels	0	0	0	0
	Industrial	3	1	0	0
	Other-Residential	47	10	1	2
	Single-Family	39	5	0	0
	TOTAL	**90**	**16**	**1**	**2**
2PM	Commercial	108	26	4	7
	Commuting	0	0	0	0
	Educational	35	8	1	2
	Hotels	0	0	0	0
	Industrial	21	5	1	1
	Other-Residential	11	2	0	0
	Single-Family	9	1	0	0
	TOTAL	**184**	**42**	**6**	**10**
5PM	Commercial	76	18	3	5
	Commuting	3	3	6	1
	Educational	3	1	0	0
	Hotels	0	0	0	0
	Industrial	13	3	0	1
	Other-Residential	18	4	0	1
	Single-Family	15	2	0	0
	TOTAL	**128**	**31**	**9**	**8**

Economic Losses

The total economic loss estimated for the Puente Hills M7.1 scenario earthquake is **$604.81 million dollars** which includes building and lifeline related losses based on the region's available inventory. The following tables provide more detailed information about these losses.

Table: Building-Related Economic Losses ($ Dollars) – Puente Hills M7.1

Category	Area	Single Family	Other Residential	Commercial	Industrial	Others	Total
Income Losses	Wage	$0	$787,500	$15,432,600	$1,511,100	$596,100	$18,327,300
	Capital-Related	$0	$335,100	$11,732,200	$917,600	$159,400	$13,144,300
	Rental	$2,641,000	$5,782,700	$8,934,500	$578,600	$263,200	$18,200,000
	Relocation	$10,054,800	$4,396,800	$13,834,800	$2,201,100	$2,425,300	$32,912,800
	Subtotal	**$12,695,800**	**$11,302,100**	**$49,934,100**	**$5,208,400**	**$3,444,000**	**$82,584,400**
Capital Stock Losses	Structural	$19,848,500	$10,664,600	$28,837,300	$9,887,900	$3,154,000	$72,392,300
	Non-Structural	$108,807,200	$74,593,400	$75,802,400	$35,396,100	$11,454,300	$306,053,400
	Content	$37,941,800	$20,092,200	$39,163,800	$25,487,100	$5,815,300	$128,500,200
	Inventory	$0	$0	$1,569,100	$4,925,400	$12,400	$6,506,900
	Subtotal	**$166,597,500**	**$105,350,200**	**$145,372,600**	**$75,696,500**	**$20,436,000**	**$513,452,800**
	TOTAL	**$179,293,300**	**$116,652,300**	**$195,306,700**	**$80,904,900**	**$23,880,000**	**$596,037,200**

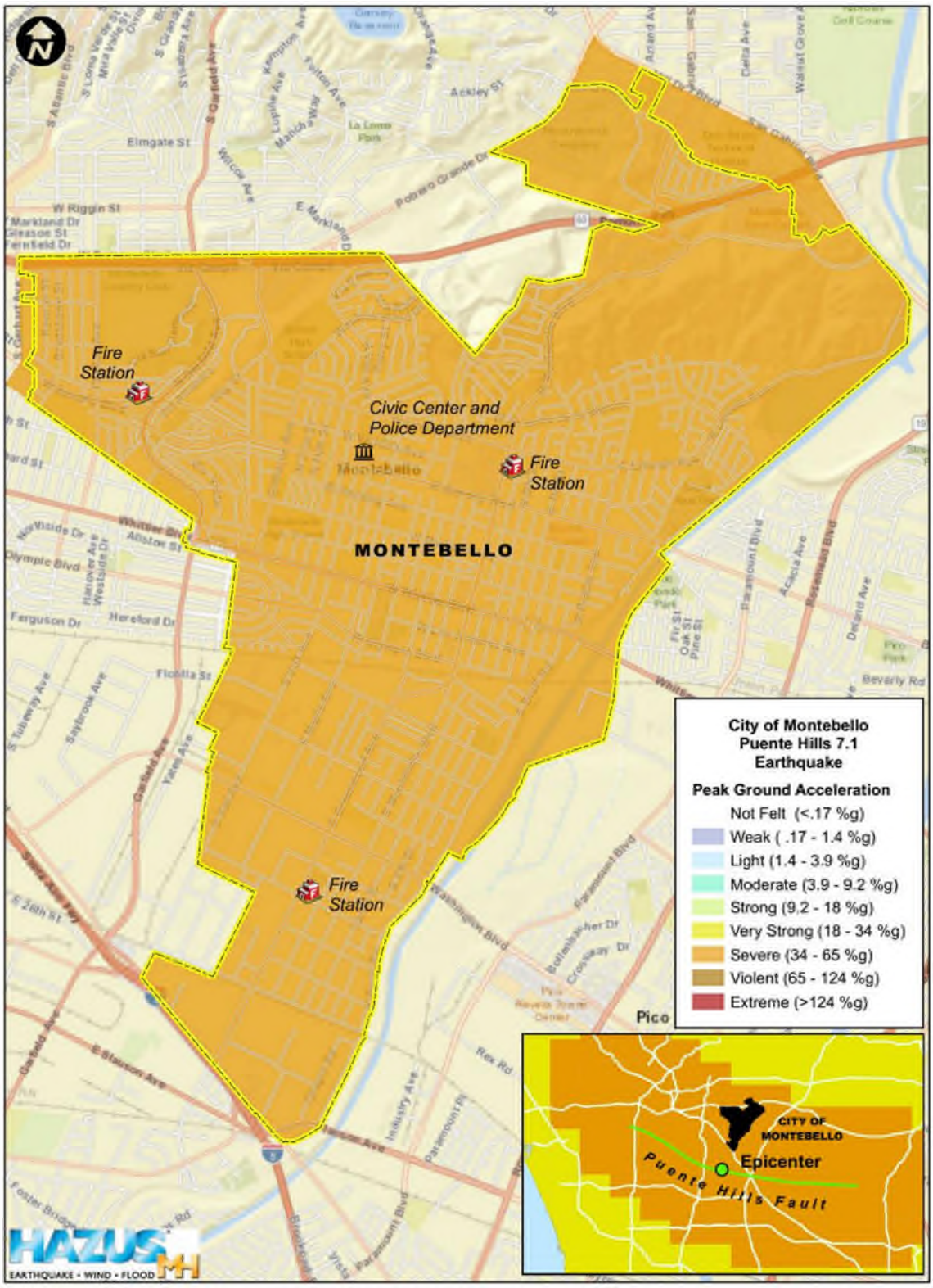
Table: Transportation System Economic Losses ($ Dollars) – Puente Hills M7.1

System	Component	Total Inventory Value	Economic Loss	Loss Ratio %
Highway	Segments	$389,155,800	$0	0%
	Bridges	$37,540,300	$3,214,900	9%
	Tunnels	$0	$0	0%
Railways	Segments	$7,156,200	$0	0%
	Bridges	$102,600	$9,700	10%
	Tunnels	$0	$0	0%
	Facilities	$2,663,000	$1,170,100	44%
Light Rail	Segments	$36,013,100	$0	0%
	Bridges	$0	$0	0%
	Tunnels	$0	$0	0%
	Facilities	$0	$0	0%
Bus	Facilities	$0	$0	0%
Ferry	Facilities	$0	$0	0%
Port	Facilities	$0	$0	0%
Airport	Facilities	$0	$0	0%
	TOTAL	**$472,631,000**	**$4,394,700**	

Table: Utility System Economic Losses ($ Dollars) – Puente Hills M7.1

System	Component	Total Inventory Value	Economic Loss	Loss Ratio %
Potable Water	Pipelines	$0	$0	0%
	Facilities	$0	$0	0%
	Distribution Lines	$51,096,200	$2,276,000	4%
Waste Water	Pipelines	$0	$0	0%
	Facilities	$0	$0	0%
	Distribution Lines	$30,657,700	$1,631,200	5%
Natural Gas	Pipelines	$0	$0	0%
	Facilities	$0	$0	0%
	Distribution Lines	$20,438,500	$467,900	2%
Oil Systems	Pipelines	$0	$0	0%
	Facilities	$0	$0	0%
Electrical Power	Facilities	$0	$0	0%
Communication	Facilities	$0	$0	0%
	TOTAL	**$102,192,400**	**$4,375,100**	

Map: Shake Intensity Map – Puente Hills M7.1
(Source: Emergency Planning Consultants)



Sierra Madre M7.2 Earthquake Scenario

Building Damage

Table: Expected Building Damage by Occupancy – Sierra Madre M7.2

	None	Slight	Moderate	Extensive	Complete
	Count	Count	Count	Count	Count
Agriculture	7	3	1	0	0
Commercial	691	228	140	29	3
Education	23	7	4	1	0
Government	9	3	2	0	0
Industrial	140	46	31	7	1
Other Residential	917	345	140	27	2
Religion	56	18	9	2	0
Single Family	8,179	2,971	566	22	5
Total	**10,021**	**3,621**	**894**	**89**	**11**

Table: Expected Building Damage by Building Type – Sierra Madre M7.2

	None	Slight	Moderate	Extensive	Complete
	Count	Count	Count	Count	Count
Wood	8,491	3,258	618	22	6
Steel	209	67	51	10	1
Concrete	204	71	39	9	1
Precast	172	60	49	12	1
RM	355	76	55	13	0
URM	55	24	17	5	1
MH	86	64	65	18	1
Total	**10,021**	**3,621**	**894**	**89**	**11**

Transportation and Utility Lifeline Damage

Table: Expected Utility System Pipeline Damage – Sierra Madre M7.2

System	Total Pipelines (Length km)	Number of Leaks	Number of Breaks
Potable Water	2,555	10	35
Waste Water	1,553	100	25
Natural Gas	1,022	29	7
Oil	0	0	0

Table: Potable Water and Electric Power System Performance – Sierra Madre M7.2

	Total # of Households	Number of Households without Service				
		At Day 1	At Day 3	At Day 7	At Day 30	At Day 90
Potable Water	**19,552**	3	0	0	0	0
Electric Power		0	0	0	0	0

Shelter Requirement

HAZUS estimates the number of households that are expected to be displaced from their homes due to the earthquake and the number of displaced people that will require accommodations in temporary public shelters. The model estimates 92 households to be displaced due to the earthquake. Of these, 83 people (out of a total population of 64,394) will seek temporary shelter in public shelters.

Casualties

The table below represents a summary of casualties estimated for Sierra Madre M7.2 earthquake scenario.

Table: Casualty Estimates – Sierra Madre M7.2

Time	Sector	Level 1	Level 2	Level 3	Level 4
2AM	Commercial	0	0	0	0
	Commuting	0	0	0	0
	Educational	0	0	0	0
	Hotels	0	0	0	0
	Industrial	1	0	0	0
	Other-Residential	10	1	0	0
	Single-Family	12	1	0	0
	TOTAL	**23**	**2**	**0**	**0**
2PM	Commercial	21	3	0	1
	Commuting	0	0	0	0
	Educational	7	1	0	0
	Hotels	0	0	0	0
	Industrial	4	1	0	0
	Other-Residential	2	0	0	0
	Single-Family	2	0	0	0
	TOTAL	**36**	**5**	**0**	**1**
5PM	Commercial	15	2	0	0
	Commuting	0	0	1	0
	Educational	1	0	0	0
	Hotels	0	0	0	0
	Industrial	2	0	0	0
	Other-Residential	4	0	0	0
	Single-Family	4	0	0	0
	TOTAL	**26**	**2**	**1**	**0**

Economic Losses

The total economic loss estimated for the Sierra Madre M7.2 earthquake scenario is **$182.31 million dollars** which includes building and lifeline related losses based on the region's available inventory. The following tables provide more detailed information about these losses.

Table: Building-Related Economic Losses ($ Dollars) – Sierra Madre M7.2

Category	Area	Single Family	Other Residential	Commercial	Industrial	Others	Total
Income Losses	Wage	$0	$229,300	$4,141,800	$294,700	$207,100	$4,872,900
	Capital-Related	$0	$97,500	$3,269,300	$178,900	$56,500	$3,602,200
	Rental	$782,400	$1,604,300	$2,551,700	$121,700	$77,100	$5,137,200
	Relocation	$2,785,300	$1,199,400	$3,848,800	$485,200	$762,400	$9,081,100
	Subtotal	**$3,567,700**	**$3,130,500**	**$13,811,600**	**$1,080,500**	**$1,103,100**	**$22,693,400**
Capital Stock Losses	Structural	$7,119,600	$3,152,200	$6,707,200	$1,778,500	$1,004,700	$19,762,200
	Non-Structural	$40,018,100	$23,751,700	$21,049,100	$7,713,400	$4,219,200	$96,751,500
	Content	$13,232,900	$6,340,300	$11,712,700	$5,594,000	$2,254,700	$39,134,600
	Inventory	$0	$0	$427,100	$1,070,200	$4,600	$1,501,900
	Subtotal	**$60,370,600**	**$33,244,200**	**$39,896,100**	**$16,156,100**	**$7,483,200**	**$157,150,200**
	TOTAL	**$63,938,300**	**$36,374,700**	**$53,707,700**	**$17,236,600**	**$8,586,300**	**$179,843,600**

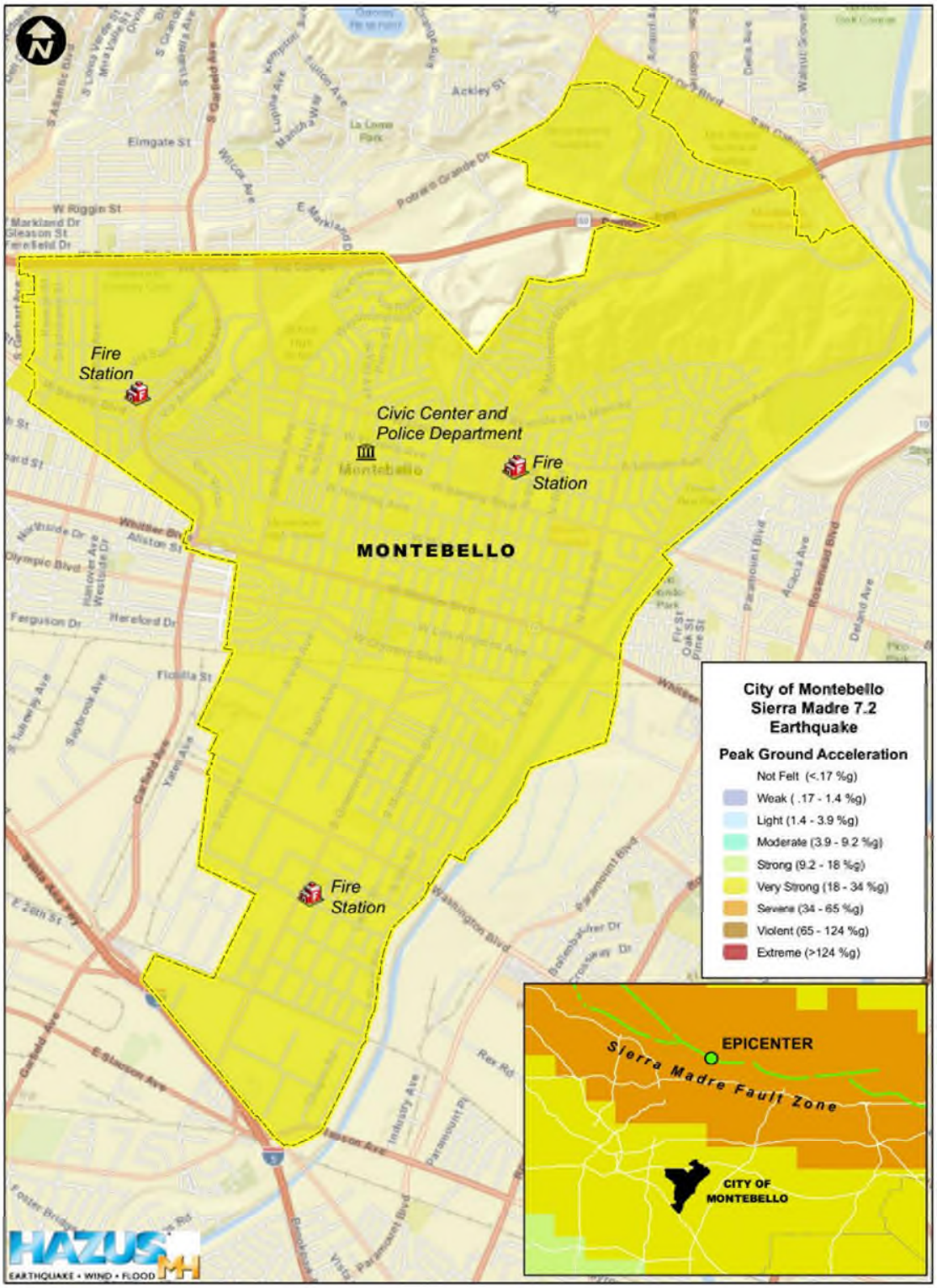
Table: Transportation System Economic Losses ($ Dollars) – Sierra Madre M7.2

System	Component	Total Inventory Value	Economic Loss	Loss Ratio %
Highway	Segments	$389,155,800	$0	0%
	Bridges	$37,540,300	$788,800	2%
	Tunnels	$0	$0	0%
Railways	Segments	$7,156,200	$0	0%
	Bridges	$102,600	$400	1%
	Tunnels	$0	$0	0%
	Facilities	$2,663,000	$471,700	17%
Light Rail	Segments	$36,013,100	$0	0%
	Bridges	$0	$0	0%
	Tunnels	$0	$0	0%
	Facilities	$0	$0	0%
Bus	Facilities	$0	$0	0%
Ferry	Facilities	$0	$0	0%
Port	Facilities	$0	$0	0%
Airport	Facilities	$0	$0	0%
	TOTAL	**$472,631,000**	**$1,260,900**	

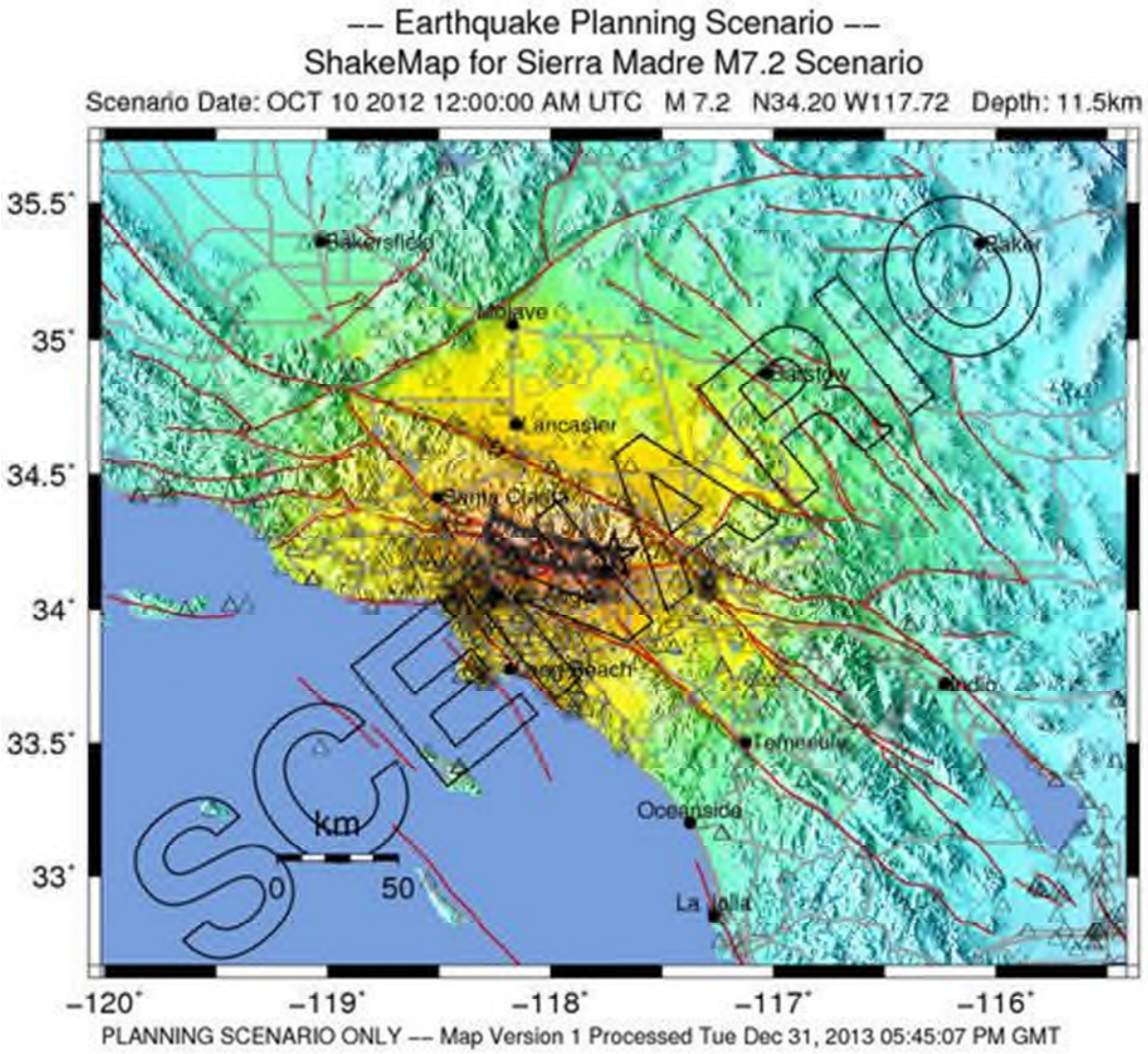
Table: Utility System Economic Losses ($ Dollars) – Sierra Madre M7.2

System	Component	Total Inventory Value	Economic Loss	Loss Ratio %
Potable Water	Pipelines	$0	$0	0%
	Facilities	$0	$0	0%
	Distribution Lines	$51,096,200	$627,900	1%
Waste Water	Pipelines	$0	$0	0%
	Facilities	$0	$0	0%
	Distribution Lines	$30,657,700	$450,000	2%
Natural Gas	Pipelines	$0	$0	0%
	Facilities	$0	$0	0%
	Distribution Lines	$20,438,500	$129,100	1%
Oil Systems	Pipelines	$0	$0	0%
	Facilities	$0	$0	0%
Electrical Power	Facilities	$0	$0	0%
Communication	Facilities	$0	$0	0%
	TOTAL	**$102,192,400**	**$1,207,000**	

Map: Shake Intensity Map – Sierra Madre M7.2
(Source: Emergency Planning Consultants)



Map: Seismic Shaking Intensities for the Sierra Madre M7.2
(Source: State of California Department of Conservation)



PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Mod./Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	*<0.1*	*0.5*	*2.4*	*6.7*	*13*	24	44	83	>156
PEAK VEL.(cm/s)	<0.07	0.4	1.9	5.8	*11*	*22*	*43*	*83*	*>160*
INSTRUMENTAL INTENSITY	I	II–III	IV	V	VI	VII	VIII	IX	X+

Scale based upon Wald, et al.; 1999

Structures and Building Code

The built environment is susceptible to damage from earthquakes. Buildings that collapse can trap and bury people. Lives are at risk, and the cost to clean up the damages is great. In most California communities, including the City of Montebello, many buildings were built before 1993 when building codes were not as strict. In addition, retrofitting is not required except under certain conditions and can be expensive. Therefore, the number of buildings at risk remains high. The California Seismic Safety Commission makes annual reports on the progress of the retrofitting of unreinforced masonry buildings. According to the City of Montebello General Plan, All URM buildings within the City have been identified and upgraded to meet current requirements.

Implementation of earthquake mitigation policy most often takes place at the local government level. The City of Montebello Planning and Community Development Department enforces building codes pertaining to earthquake hazards.

Additionally, the City has implemented basic building requirements that are above and beyond what the State demands for hazard mitigation. Newly constructed buildings in Montebello that are built in an area subject to Earthquake-induced landslide or liquefaction are typically built with extra foundation support. Such support is found in the post-tension reinforced concrete foundation; this same technique is used by coastal cities to prevent home destruction during cases of liquefaction.

Generally, these codes seek to discourage development in areas that could be prone to flooding, landslide, wildfire and/or seismic hazards; and where development is permitted, that the applicable construction standards are met. Developers in hazard-prone areas may be required to retain a qualified professional engineer to evaluate level of risk on the site and recommend appropriate mitigation measures.

Wildfire Hazards

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B2

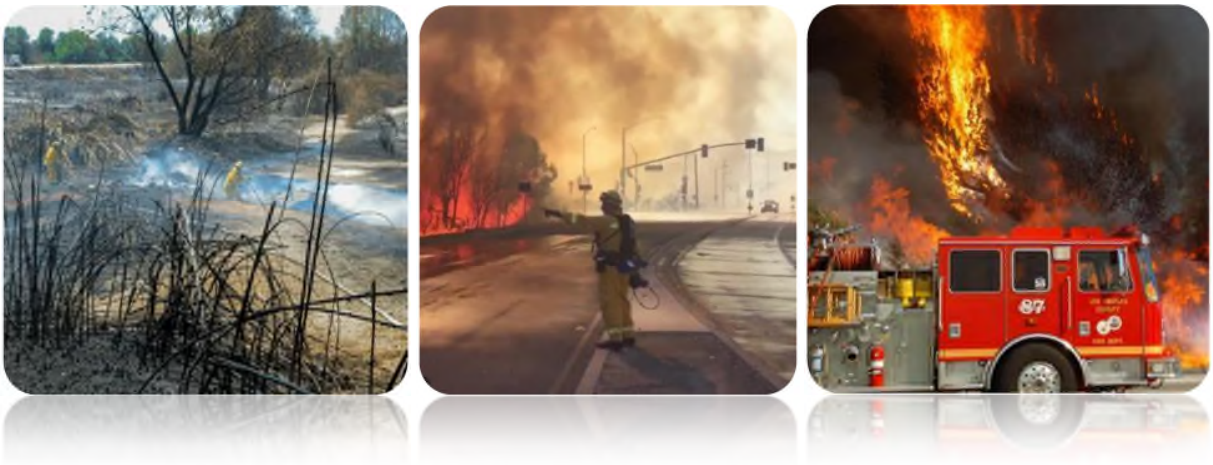
Q: B2. Does the Plan include information on previous occurrences of hazard events and on the probability of future hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))

A: See **Previous Occurrences of Wildfire in the City of Montebello** below.

Previous Occurrences of Wildfire in the City of Montebello

Fortunately, there have been no wildfire outbreaks within the City. However, bordering areas are highly prone to wildfires and, therefore, the City is exposed to a threat from wildfires originating outside the City specifically from the east toward the Hacienda Hills.

Although no wildfires have impacted the City, the most recent fire event to impact the City was a brush fire in August 2015. A homeless man sparked a 384-acre wildfire in the Rio Hondo Riverbed while cooking food in the brush. Although no structures were damaged, four firefighters suffered minor injuries while fighting the fire.



Previous Occurrences of Wildfire in Los Angeles County

Due to its weather, topography, and native vegetation, the majority of Los Angeles County is at risk from wildland fires. The extended droughts characteristic of California's Mediterranean climate result in large areas of dry vegetation that provide fuel for wildland fires. Furthermore, the native vegetation typically has a high oil content that makes it highly flammable. The area is also intermittently impacted by Santa Ana winds, the hot, dry winds that blow across southern California in the spring and late fall.

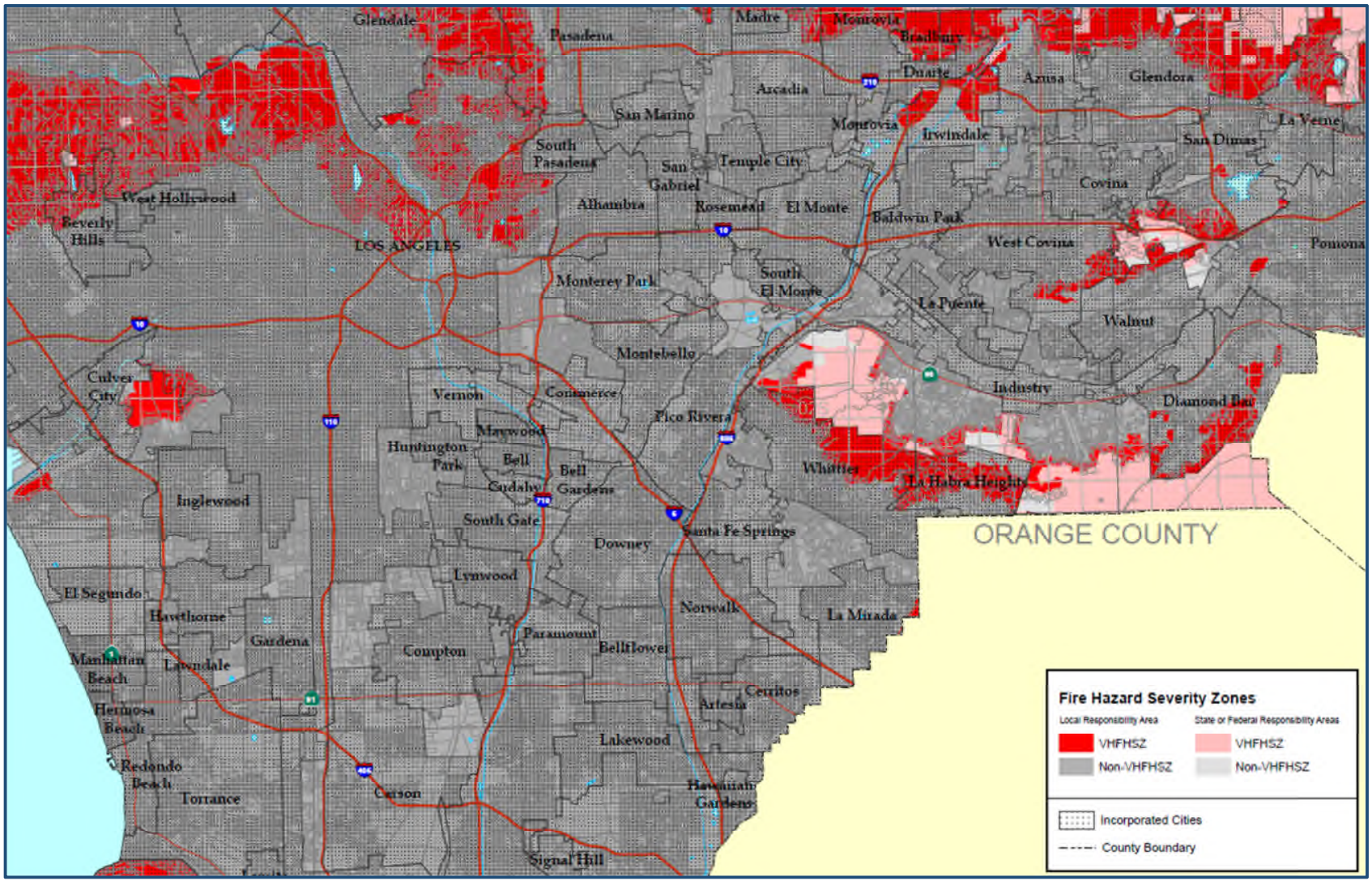
The most recent significant wildfire event to impact the County of Los Angeles was the Station Fire in 2009. The Station Fire destroyed 209 structures and burned a total of 160,577 acres within Los Angeles County. According to the United States Forest Service, the Station Fire was the 10th largest in modern California history, and the largest wildfire in Los Angeles County to date.

Local Conditions

According to **Map: Local, State, and Federal Responsibility Areas - Very High Fire Hazard Severity Zones** the City of Montebello is not designated a very high fire hazard severity zone (VHFHSZ). However, the immediate areas due east of Montebello including the City of Whittier and the unincorporated community of Hacienda Heights are at severe risk to wildfires. These areas are at significant risk during the summer months, extended periods of heat, and long periods of no rain. Strong, easterly Santa Ana winds have the potential to direct wildfires from the west into the City of Montebello.

Although unlikely, the northeastern portion of the City is at greatest risk of wildfire impact due to the wildland/urban interface and primarily chaparral fuel source.

Map: Local, State, and Federal Responsibility Areas - Very High Fire Hazard Severity Zones
(Source: CAL FIRE)



Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B3

Q: B3. Is there a description of each identified hazard's impact on the community as well as an overall summary of the community's vulnerability for each jurisdiction? (Requirement §201.6(c)(2)(ii))

A: See **Impact of Wildfire in the City of Montebello** below.

Impact of Wildfire in the City of Montebello

Wildfires and their impact varies by location and severity of any given wildfire event, and will likely only affect certain areas of the county during specific times. Based on the risk assessment, it is evident that wildfires will have a potentially devastating economic impact to certain areas of the City.

Impact that is not quantified, but anticipated in future events includes:

- ✓ Injury and loss of life
- ✓ Commercial and residential structural damage
- ✓ Disruption of and damage to public infrastructure
- ✓ Secondary health hazards e.g. mold and mildew
- ✓ Damage to roads/bridges resulting in loss of mobility
- ✓ Significant economic impact (jobs, sales, tax revenue) upon the community
- ✓ Negative impact on commercial and residential property values
- ✓ Significant disruption to students and teachers as temporary facilities and relocations would likely be needed

Flood Hazards

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B2

Q: B2. Does the Plan include information on previous occurrences of hazard events and on the probability of future hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))

A: See **Previous Occurrences of Flooding in the City of Montebello** below.

Previous Occurrences of Flooding in the City of Montebello

Flooding has not been a serious hazard to Montebello in several decades, and the risk of disastrous flooding in the City is considered minimal. The vast majority of Montebello – despite notable areas identified below – does not lie within a 100- or 500- year floodplain, as delineated by the Federal Emergency Management Agency (FEMA). However, the potential for a localized flood event still exists within Montebello, and it is an important hazard to be addressed in the City's Hazard Mitigation Plan.

Since the writing of the 2004 Mitigation Plan, there have been no significant flooding events impacting the City of Montebello.

Previous Occurrences of Flooding in Los Angeles County

Los Angeles County records reveal since 1861, the Los Angeles River has flooded 30 times, on average once every 6.1 years. But averages are deceiving, for the Los Angeles basin goes through periods of drought and then periods of above average rainfall. Between 1889 and 1891 the river flooded every year, from 1941 to 1945, the river flooded 5 times. Conversely, from 1896 to 1914, and again from 1944 to 1969, a period of 25 years, the river did not have serious floods.

Average annual precipitation in Los Angeles County ranges from 13 inches on the coast to approximately 40 inches on the highest point of the Peninsular Mountain Range that transects the County. Several factors determine the severity of floods, including rainfall intensity and duration. A large amount of rainfall over a short time span can result in flash flood conditions. A sudden thunderstorm or heavy rain, dam failure, or sudden spills can cause flash flooding. The National Weather Service's definition of a flash flood is a flood occurring in a watershed where the time of travel of the peak of flow from one end of the watershed to the other is less than six hours.

The towering mountains that give the Los Angeles region its spectacular views also wring a great deal of rain out of the storm clouds that pass through. Because the mountains are so steep, the rainwater moves rapidly down the slopes and across the coastal plains on its way to the ocean.

Naturally, this rainfall moves rapidly downstream, often with severe consequences for anything in its path. In extreme cases, flood-generated debris flows will roar down a canyon at speeds near 40 miles per hour with a wall of mud, debris and water, tens of feet high. Flooding occurs when climate, geology, and hydrology combine to create conditions where water flows outside of its usual course.

Local Conditions

According to the National Flood Insurance Program, the City is designated as Zone "X" or minimal flood hazard. However, the City contains four specific areas considered to be at special risk of flooding:

1. West side of Grant Rea Park along the Rio Hondo Channel
2. Garfield Avenue between Via Paseo and Beverly Boulevard
3. East side of Rio Hondo Channel from Beverly Terrace to Mines Avenue
4. Mines Avenue from Maple Avenue to Greenwood

Map: Rio Hondo 100-Year Flood Scenario shows the 100-year Rio Hondo flood impact scenario on the eastern portion of the City.

Urban Flooding

Portions of the City of Montebello are prone to urban flooding, also sometimes referred to as ponding, due to debris accumulation on storm drains and in flood control channels and basins, overburdened pumping stations and aged drainage systems. Low-lying areas of the City are particularly susceptible to urban flooding.

Flood control channels and basins are at risk of overflowing their banks during times of heavy rainfall and reservoir water release, specifically the Rio Hondo Flood Control Channel which runs north to south through the length of City and the San Gabriel River basin, which runs along the east side of the City. The Los Angeles County Department of Public Works and the Army Corp of Engineers are responsible for notifying the jurisdiction at the onset of planned water releases.

Q&A | ELEMENT C. MITIGATION STRATEGY | C2

Q: C2. Does the Plan address each jurisdiction's participation in the NFIP and continued compliance with NFIP requirements, as appropriate? (Requirement §201.6(c)(3)(ii))

A: See **National Flood Insurance Program** below.

National Flood Insurance Program

The City participates in the National Flood Insurance Program (NFIP). Created by Congress in 1968, the NFIP makes flood insurance available in communities that enact minimum floodplain management rules consistent with the Code of Federal Regulations §60.3.

According to **Map: Flood Insurance Rate Map**, the built areas of the City are in "Flood Zone X" and "Flood Zone D". Zone X is defined as the area outside the 500-year flood and protected by levee from 100-year flood. Zone D is defined as areas in which flood hazards are undetermined (no analysis of flood hazards has been conducted), but possible.

Map: Flood Insurance Rate Map
(Source: FEMA Flood Map Service Center)



Rio Hondo 100-Year Flood Scenario

Building Damage

Table: Expected Building Damage by Occupancy – Rio Hondo 100-Year Flood

	Slight	Moderate	Extensive	Complete
	Count	Count	Count	Count
Agriculture	0	0	0	0
Commercial	0	0	0	0
Education	0	0	0	0
Government	0	0	0	0
Industrial	1	0	0	0
Other Residential	0	0	0	0
Religion	0	0	0	0
Single Family	8	54	38	19
Total	**9**	**54**	**38**	**19**

Table: Expected Building Damage by Building Type – Rio Hondo 100-Year Flood

	Slight	Moderate	Extensive	Complete
	Count	Count	Count	Count
Concrete	0	0	0	0
MH	0	0	0	0
Masonry	0	0	0	0
Steel	1	0	0	0
Wood	8	54	38	19
Total	**9**	**54**	**38**	**19**

Shelter Requirement

HAZUS estimates the number of households that are expected to be displaced from their homes due to the flood and the number of displaced people that will require accommodations in temporary public shelters. The model estimates 304 households to be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 877 people (out of a total population of 62,453) will seek temporary shelter in public shelters.

Economic Losses

The total economic loss estimated for the Rio Hondo 100-Year Flood scenario is **$31.38 million dollars** which includes building and lifeline related losses based on the region's available inventory. The following tables provide more detailed information about these losses.

Table: Building-Related Economic Losses ($ Dollars) – Rio Hondo 100-Year Flood

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss	Building	$13,429,000	$1,004,000	$1,260,000	$62,000	$15,755,000
	Content	$8,530,000	$2,438,000	$3,643,000	$314,000	$14,925,000
	Inventory	$0	$54,000	$610,000	$2,000	$666,000
	Subtotal	**$21,959,000**	**$3,496,000**	**$0**	**$378,000**	**$31,346,000**
Business Interruption	Income	$1,000	$4,000	$0	$0	$5,000
	Relocation	$19,000	$0	$0	$0	$19,000
	Rental Income	$4,000	$0	$0	$0	$4,000
	Wage	$3,000	$3,000	$0	$1,000	$7,000
	Subtotal	**$27,000**	**$7,000**	**$0**	**$1,000**	**$35,000**
	TOTAL	**$21,986,000**	**$3,503,000**	**$0**	**$379,000**	**$31,381,000**

Map: Rio Hondo 100-Year Flood Scenario
Source: Emergency Planning Consultants



Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B3

Q: B3. Is there a description of each identified hazard's impact on the community as well as an overall summary of the community's vulnerability for each jurisdiction? (Requirement §201.6(c)(2)(ii))

A: See **Impact of Flooding in the City of Montebello** below.

Impact of Flooding in the City of Montebello

Floods and their impacts vary by location and severity of any given flood event, and likely only affect certain areas of the County during specific times. Based on the risk assessment, it is evident that floods will continue to have devastating economic impact to certain areas of the City.

Impact that is not quantified, but anticipated in future events includes:

- ✓ Injury and loss of life;
- ✓ Commercial and residential structural damage;
- ✓ Disruption of and damage to public infrastructure;
- ✓ Secondary health hazards e.g. mold and mildew
- ✓ Damage to roads/bridges resulting in loss of mobility
- ✓ Significant economic impact (jobs, sales, tax revenue) upon the community
- ✓ Negative impact on commercial and residential property values and
- ✓ Significant disruption to students and teachers as temporary facilities and relocations would likely be needed.

Dam Failure Hazards

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B2

Q: B2. Does the Plan include information on previous occurrences of hazard events and on the probability of future hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))

A: See **Previous Occurrences of Dam Failure in the City of Montebello** below.

Previous Occurrences of Dam Failure in the City of Montebello

The City of Montebello has not been recently affected by a release/failure of any of the dam facilities identified in **Table: Dams Near City of Montebello**.

Since the writing of the 2004 Mitigation Plan, there have been no dam failure events in the City of Montebello.

Previous Occurrences of Dam Failure in Montebello County

There are a total of 103 dams in Los Angeles County, owned by 23 agencies or organizations, ranging from the Federal government to Home Owner Associations. These dams hold billions of gallons of water in reservoirs. Releases of water from the major reservoirs are designed to protect Southern California from flood waters and to store domestic water. Seismic activity can compromise the dam structures, and the resultant flooding could cause catastrophic flooding. Following the 1971 Sylmar earthquake the Lower Van Norman Dam showed signs of structural compromise, and tens of thousands of persons had to be evacuated until the dam could be drained. The dam has never been refilled.

Local Conditions

Loss of life and damage to structures, roads, and utilities may result from a dam failure. Economic losses also result from a lowered tax base and lack of utility profits. These effects would certainly accompany the failure of one of the major dams located near the City of Montebello. Because dam failure has severe consequences, FEMA requires that all dam owners develop Emergency Action Plans (EAP) for warning, evacuation, and post-flood actions. Although there may be coordination with county officials in the development of the EAP, the responsibility for developing potential flood inundation maps and facilitation of emergency response is the responsibility of the dam owner.

Whittier Narrows Dam

According to the U.S. Army Corps of Engineers, Whittier Narrows Dam is a flood risk management and water conservation project constructed in 1957 and operated by the U.S. Army Corps of Engineers, Los Angeles District. The project is located, as its name implies, at the "Whittier Narrows," a natural gap in the hills that form the southern boundary of the San Gabriel Valley. The Rio Hondo and the San Gabriel rivers flow through this gap and are impounded by the reservoir. The communities of Montebello and Pico Rivera are located immediately downstream.

Whittier Narrows Dam, a typically dry flood risk management structure located 11 miles east of downtown Los Angeles, has been reclassified from Dam Safety Action Classification (DSAC) 2 to DSAC 1.

The DSAC 1 rating indicates that the U.S. Army Corps of Engineers considers the incremental risk – the combination of life or economic consequences with the likelihood of failure – to be very high. The reclassification as DSAC 1 identifies the dam as one of the highest priority dam safety projects in the Corps' portfolio of dams.

In a May 25, 2016, memorandum to Col. Kirk Gibbs, commander of the Corps' Los Angeles District, Mr. James Dalton, chief of Engineering and Construction at Corps headquarters, emphasized that new findings with respect to the anticipated performance of the spillway gates drove the reclassification.

The Los Angeles District is currently working with a nationwide team of experts to develop a plan to reduce the risk associated with the spillway. The Corps anticipates that some of the potential solutions will be in operation prior to the 2016-2017 winter rains; other measures will likely be installed before the end of 2017.

Map: Dam Failure Inundation – Whittier Narrows Dam (HAZUS) below shows the potential water depth inundation from a failure of the Whittier Narrows Dam.

Garvey Reservoir

Garvey Reservoir, owned by the Metropolitan Water District of Southern California (MWD), stores municipal water supplies for MWD customers. The reservoir lies impounded behind a north dam and a south dam. MWD completed a substantial overhaul of the facility in 1999 to address seepage and ensure overall reservoir integrity. The state Department of Conservation, Division of Dam Safety conducts periodic dam inspections to verify the dams' ability to withstand seismic stresses. A major seismic event has the potential to cause significant damage and potential failure at this facility.

According to the City of Monterey Park's website, in the unlikely event of a conjectured catastrophic failure at Garvey Reservoir, properties to the north and south of the reservoir could be flooded. If the south dam failed, flood waters of average depth six to seven feet would cascade down the slope bank and into the residential neighborhoods below. At the Pomona Freeway, the water would spread laterally along the north side of the freeway before flowing through freeway under crossings into the City of Montebello.

Table: Dams near City of Montebello

Name of Facility	Owner	Primary Purpose
Whittier Narrows	U.S. Army Corps of Engineers (ACOE)	Flood Control
Garvey Reservoir	Metropolitan Water District	Water Supply Storage

Whittier Narrows Dam





Garvey Reservoir





Whittier Narrows Dam Failure Scenario

Building Damage

Table: Expected Building Damage by Occupancy – Whittier Narrows Dam Failure Scenario

	Slight	Moderate	Extensive	Complete
	Count	Count	Count	Count
Agriculture	0	0	0	0
Commercial	0	0	0	0
Education	0	0	0	0
Government	0	0	0	0
Industrial	0	0	0	0
Other Residential	0	0	0	0
Religion	0	0	0	0
Single Family	9	56	48	36
Total	**9**	**56**	**48**	**36**

Table: Expected Building Damage by Building Type – Whittier Narrows Dam Failure Scenario

	Slight	Moderate	Extensive	Complete
	Count	Count	Count	Count
Concrete	0	0	0	0
MH	0	0	0	0
Masonry	0	0	0	0
Steel	0	0	0	0
Wood	9	56	48	36
Total	**9**	**56**	**48**	**36**

Shelter Requirement

HAZUS estimates the number of households that are expected to be displaced from their homes due to the flood and the number of displaced people that will require accommodations in temporary public shelters. The model estimates 335 households to be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 950 people (out of a total population of 62,453) will seek temporary shelter in public shelters.

Economic Losses

The total economic loss estimated for the Whittier Narrows Dam failure scenario is **$39.19 million dollars** which includes building and lifeline related losses based on the region's available inventory. The following tables provide more detailed information about these losses.

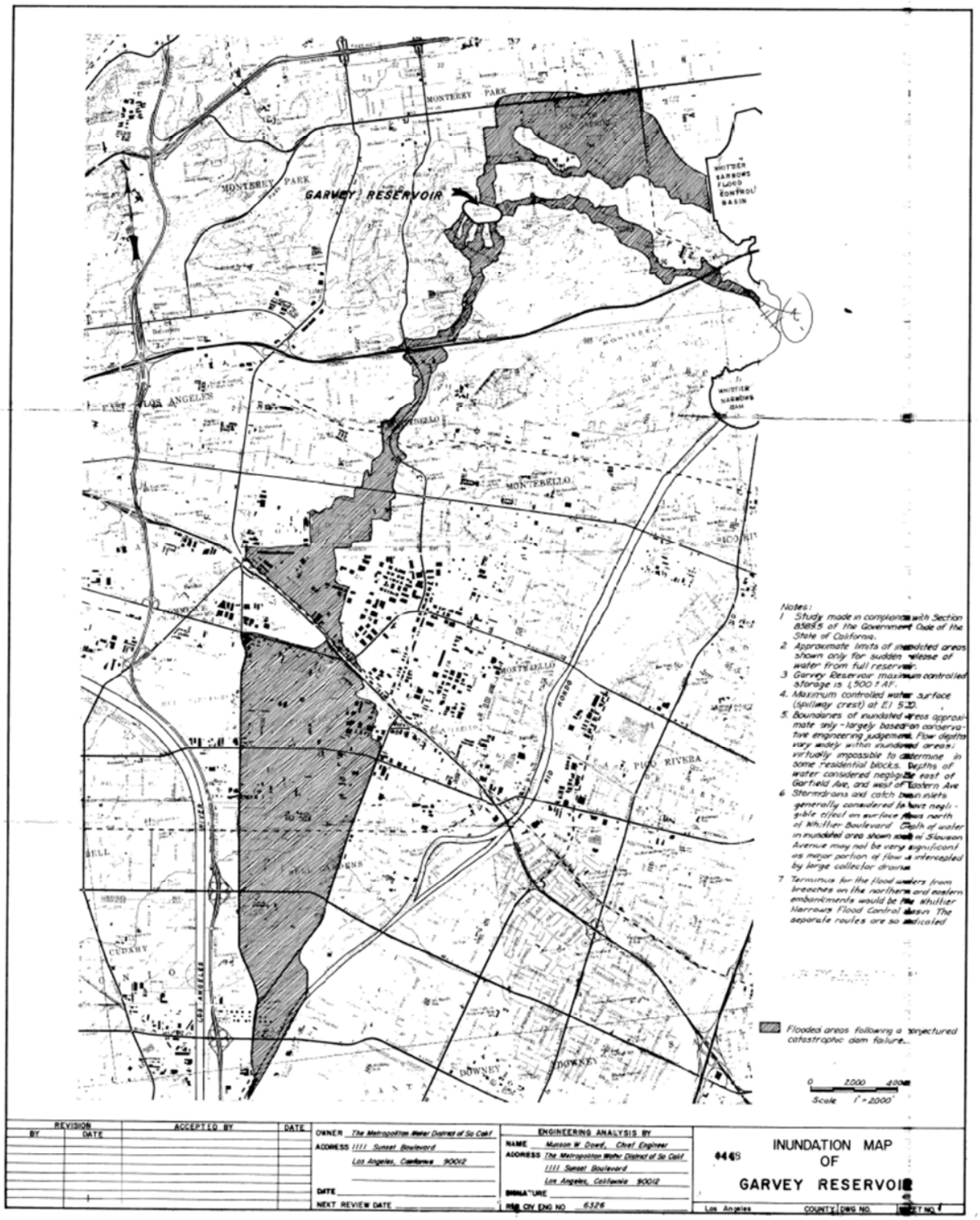
Table: Building-Related Economic Losses ($ Dollars) – Whittier Narrows Dam Failure Scenario

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss	Building	$17,379,000	$1,319,000	$1,314,000	$96,000	$20,108,000
	Content	$10,859,000	$3,106,000	$3,849,000	$498,000	$18,312,000
	Inventory	$0	$70,000	$642,000	$4,000	$716,000
	Subtotal	**$28,238,000**	**$4,495,000**	**$0**	**$598,000**	**$39,136,000**
Business Interruption	Income	$1,000	$7,000	$0	$0	$8,000
	Relocation	$25,000	$0	$0	$0	$25,000
	Rental Income	$6,000	$0	$0	$0	$6,000
	Wage	$4,000	$5,000	$0	$1,000	$10,000
	Subtotal	**$36,000**	**$12,000**	**$0**	**$1,000**	**$49,000**
	TOTAL	**$28,274,000**	**$4,507,000**	**$0**	**$599,000**	**$39,185,000**

Map: Dam Failure Inundation – Whittier Narrows Dam (HAZUS)
Source: Emergency Planning Consultants



Map: Dam Failure Inundation – Garvey Reservoir
(Source: Cal OES Dam Safety Program)



Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B3

Q: B3. Is there a description of each identified hazard's impact on the community as well as an overall summary of the community's vulnerability for each jurisdiction? (Requirement §201.6(c)(2)(ii))

A: See **Impacts of Dam Failure in the City of Montebello** below.

Impacts of Dam Failure in the City of Montebello

Based on the risk assessment, it is evident that dam failures will continue to have potentially devastating economic impacts to certain areas of the City.

Impacts that are not quantified, but can be anticipated in future events, include:

- ✓ Injury and loss of life
- ✓ Commercial and residential structural damage
- ✓ Disruption of and damage to public infrastructure
- ✓ Secondary health hazards e.g. mold and mildew
- ✓ Damage to roads/bridges resulting in loss of mobility
- ✓ Significant economic impact (jobs, sales, tax revenue) upon the community
- ✓ Negative impact on commercial and residential property values
- ✓ Significant disruption to students and teachers as temporary facilities and relocations are needed

Drought Hazards

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B2

Q: B2. Does the Plan include information on previous occurrences of hazard events and on the probability of future hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))

A: See **Previous Occurrences of Drought in the City of Montebello** below.

Previous Occurrences of Drought in the City of Montebello

Fortunately, there is no severe history of drought within the City of Montebello. Although there is no evidence of a drought having a significant impact on the City at the current time, California as a whole has experienced a serious drought since 2012.

Since the writing of the 2004 Mitigation Plan, there have been no significant damages to the City from a drought.

Previous Occurrences of Drought in Los Angeles County

The region's Mediterranean climate makes it especially susceptible to variations in rainfall. Though the potential risk to the City of Montebello is in no way unique, severe water shortages could have a bearing on the economic well-being of the community. Comparison of climate (rainfall) records from Los Angeles with water well records beginning in 1930 from the San Gabriel Valley indicates the existence of wet and dry cycles on a 10-year scale as well as for much longer periods. The climate record for the Los Angeles region beginning in 1890 suggests drying conditions over the last century. With respect to the present day, climate data also suggests that the last significant wet period was the 1940s. Well level data and other sources seem to indicate the historic high groundwater levels (reflecting recharge from rainfall) occurred in the same decade. Since that time, rainfall (and groundwater level trends) appears to be in decline. This slight declining trend, however, is not believed to be significant. Climatologists compiled rainfall data from 96 stations in the State that spanned a 100-year period between 1890 and 1990. An interesting note is that during the first 50 years of the reporting period, there was only one year (1890) that had more than 35 inches of rainfall, whereas the second 50-year period recording of 5 year intervals (1941, 1958, 1978, 1982, and 1983) that exceeded 35 inches of rainfall in a single year. The year of maximum rainfall was 1890 when the average annual rainfall was 43.11 inches. The second wettest year on record occurred in 1983 when the State's average was 42.75 inches.

The driest year of the 100-year reported in the study was 1924 when the State's average rainfall was only 10.50 inches. The region with the most stations reporting the driest year in 1924 was the San Francisco Bay area. The second driest year was 1977 when the average was 11.57 inches. The most recent major drought (1987 to 1990) occurred at the end of a sequence of very wet years (1978 to 1983). The debate continues whether "global warming" is occurring, and the degree to which global climate change will have an effect on local micro-climates. The semi-arid southwest is particularly susceptible to variations in rainfall. A study that documented annual precipitation for California since 1600 from reconstructed tree ring data indicates that there was a prolonged dry spell from about 1755 to 1820 in California. Fluctuations in precipitation could contribute indirectly to a number of hazards including wildfire and the availability of water supplies.

Local Conditions

According to the City of Montebello General Plan, water service for the City is provided by five service providers in five different districts: California Water Service Company, Central Basin/Metropolitan Water District (MWD), Montebello Land and Water, San Gabriel Valley Water Company, and the South Montebello Irrigation District.

A significant drought has hit the state of California since 2012. The drought has depleted reservoir levels all across the state. In January of 2014, Governor Brown declared a state of emergency and directed state officials to take all necessary actions to prepare for water shortages. As the drought prolonged into 2015, to help cope with the drought, Governor Brown gave an executive order in April 2015 which mandated a statewide 25 percent reduction in water use. In January of 2016, the Department of Water Resources and the United States. Bureau of Reclamation have finalized the 2016 Drought Contingency Plan that outlines State Water Project and Central Valley Project operations for February 2016 to November 2016. The plan was developed in coordination with staff from State and federal agencies. Although the drought has more significantly impacted surfaces waters and other agencies that use water for agriculture, the City of Montebello is still affected by the drought, primarily due to reduced reliability of imported water.

Q&A | ELEMENT B: HAZARD IDENTIFICATION AND RISK ASSESSMENT | B3

Q: B3. Is there a description of each identified hazard's impact on the community as well as an overall summary of the community's vulnerability for each jurisdiction? (Requirement §201.6(c)(2)(ii))

A: See **Impacts of Drought in the City of Montebello** below.

Impacts of Drought in the City of Montebello

Based on the risk assessment, it is evident that drought events continue to have potentially devastating economic impacts to certain areas of the City.

Impacts that are not quantified, but can be anticipated in future events, include:

- ✓ Injury and loss of life
- ✓ Disruption of and damage to public infrastructure
- ✓ Significant economic impact (jobs, sales, tax revenue) upon the community
- ✓ Negative impact on commercial and residential property values
- ✓ Uncontrolled fires and associated injuries and damage

PART III: MITIGATION STRATEGIES

Mitigation Strategies

Overview of Mitigation Strategy

As the cost of damage from natural disasters continues to increase nationwide, the City of Montebello recognizes the importance of identifying effective ways to reduce vulnerability to disasters. Mitigation Plans assist communities in reducing risk from natural hazards by identifying resources, information and strategies for risk reduction, while helping to guide and coordinate mitigation activities throughout the City.

The plan provides a set of action items to reduce risk from natural hazards through education and outreach programs, and to foster the development of partnerships. Further, the plan provides for the implementation of preventative activities, including programs that restrict and control development in areas subject to damage from natural hazards.

The resources and information within the Mitigation Plan:

1. Establish a basis for coordination and collaboration among agencies and the public in the City of Montebello;
2. Identify and prioritize future mitigation projects; and
3. Assist in meeting the requirements of federal assistance programs

The Mitigation Plan is integrated with other City plans including the City of Montebello Emergency Operations Plan, General Plan as well as department-specific standard operating procedures.

Mitigation Measure Categories

Following is FEMA's list of mitigation categories. The activities identified by the Planning Team are consistent with the six broad categories of mitigation actions outlined in FEMA publication 386-3 *Developing the Mitigation Plan: Identifying Mitigation Actions and Implementing Strategies*.

- ✓ **Prevention:** Government administrative or regulatory actions or processes that influence the way land and buildings are developed and built. These actions also include public activities to reduce hazard losses. Examples include planning and zoning, building codes, capital improvement programs, open space preservation, and storm water management regulations.
- ✓ **Property Protection:** Actions that involve modification of existing buildings or structures to protect them from a hazard, or removal from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
- ✓ **Public Education and Awareness:** Actions to inform and educate citizens, property owners, and elected officials about hazards and potential ways to mitigate them.

  Such actions include outreach projects, real estate disclosure, hazard information centers, and school-age and adult education programs.

- ✓ **Natural Resource Protection:** Actions that, in addition to minimizing hazard losses preserve or restore the functions of natural systems. Examples include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
- ✓ **Emergency Services:** Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and protection of critical facilities.
- ✓ **Structural Projects:** Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, levees, floodwalls, retaining walls, and safe rooms.

Q&A | ELEMENT C. MITIGATION STRATEGY | C3

Q: C3. Does the Plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards? (Requirement §201.6(c)(3)(i))

A: See **Goals** below.

Goals

The Planning Team developed mitigation goals to avoid or reduce long-term vulnerabilities to hazards. These general principles clarify desired outcomes.

The goals are based on the risk assessment and Planning Team input, and represents a long-term vision for hazard reduction or enhanced mitigation capabilities. They are compatible with community needs and goals expressed in other planning documents prepared by the City.

Each goal is supported by mitigation action items. The Planning Team developed these action items through its knowledge of the local area, risk assessment, review of past efforts, identification of mitigation activities, and qualitative analysis.

The five mitigation goals and descriptions are listed below.

FEMA defines **Goals** as general guidelines that explain what you want to achieve. They are usually broad policy-type statements, long-term, and represent global visions.

FEMA defines **Mitigation Activities** as specific actions that help you achieve your goals and objectives.

Protect Life and Property

Implement activities that assist in protecting lives by making homes, businesses, infrastructure, critical facilities, and other property more resistant to losses from natural, human-caused, and technological hazards.

Improve hazard assessment information to make recommendations for avoiding new development in high hazard areas and encouraging preventative measures for existing development in areas vulnerable to natural, human-caused, and technological hazards.

Enhance Public Awareness

Develop and implement education and outreach programs to increase public awareness of the risks associated with natural, human-caused, and technological hazards.

Provide information on tools; partnership opportunities, and funding resources to assist in implementing mitigation activities.

Preserve Natural Systems

Support management and land use planning practices with hazard mitigation to protect life.

Preserve, rehabilitate, and enhance natural systems to serve hazard mitigation functions.

Encourage Partnerships and Implementation

Strengthen communication and coordinate participation with public agencies, citizens, non-profit organizations, business, and industry to support implementation.

Encourage leadership within the City and public organizations to prioritize and implement local and regional hazard mitigation activities.

Strengthen Emergency Services

Establish policy to ensure mitigation projects for critical facilities, services, and infrastructure.

Strengthen emergency operations by increasing collaboration and coordination among public agencies, non-profit organizations, business, and industry.

Coordinate and integrate hazard mitigation activities where appropriate, with emergency operations plans and procedures.

The Planning Team also developed hazard-specific mitigation goals, which appear in the **Mitigation Strategies Section**.

How are the Mitigation Action Items Organized?

The action items are a listing of activities in which City agencies and citizens can be engaged to reduce risk. Each action item includes an estimate of the timeline for implementation.

The action items are organized within the following **Mitigation Actions Matrix**, which lists all of the multi-hazard (actions that reduce risks for more than one specific hazard) and hazard-specific action items included in the mitigation plan. Data collection and research and the public participation process resulted in the development of these action items. The Matrix includes the following information for each action item:

Funding Source

The action items can be funded through a variety of sources, possibly including: operating budget/general fund, development fees, Community Development Block Grant (CDBG), Hazard Mitigation Grant Program (HMGP), other Grants, private funding, Capital Improvement Plan, and other funding opportunities.

Coordinating Organization

The Mitigation Actions Matrix assigns primary responsibility for each of the action items. The hierarchies of the assignments vary – some are positions, others departments, and other committees. The primary responsibility for implementing the action items falls to the entity shown as the "Coordinating Organization". The coordinating organization is the agency with regulatory responsibility to address hazards, or that is willing and able to organize resources, find appropriate funding, or oversee activity implementation, monitoring, and evaluation. Coordinating organizations may include local, County, or regional agencies that are capable of or responsible for implementing activities and programs.

Plan Goals Addressed

The plan goals addressed by each action item are included as a way to monitor and evaluate how well the mitigation plan is achieving its goals once implementation begins.

The plan goals are organized into the following five areas:

- ✓ Protect Life and Property
- ✓ Enhance Public Awareness
- ✓ Preserve Natural Systems
- ✓ Encourage Partnerships and Implementation
- ✓ Strengthen Emergency Services

Q&A | ELEMENT C. MITIGATION STRATEGY | C5

Q: C5. Does the Plan contain an action plan that describes how the actions identified will be prioritized (including cost benefit review), implemented, and administered by each jurisdiction? (Requirement §201.6(c)(3)(iv)); (Requirement §201.6(c)(3)(iii))

A: See **Priority Ratings** below.

Benefit/Cost Ratings

The benefits of proposed projects were weighed against estimated costs as part of the project prioritization process. The benefit/cost analysis was not of the detailed variety required by FEMA for project grant eligibility under the Hazard Mitigation Grant Program (HMGP) and Pre-Disaster Mitigation (PDM) grant program. A less formal approach was used because some projects may not be implemented for up to 10 years, and associated costs and benefits could change dramatically in that time. Therefore, a review of the apparent benefits versus the apparent cost of each project was performed. Parameters were established for assigning subjective ratings (high, medium, and low) to the costs and benefits of these projects.

Cost ratings were defined as follows:

High: Existing jurisdictional funding will not cover the cost of the action item so other sources of revenue would be required.

Medium: The action item could be funded through existing jurisdictional funding but would require budget modifications.

Low: The action item could be funded under existing jurisdictional funding.

Benefit ratings were defined as follows:

High: The action item will provide short-term and long-term impacts on the reduction of risk exposure to life and property.

Medium: The action item will have long-term impacts on the reduction of risk exposure to life and property.

Low: The action item will have only short-term impacts on the reduction of risk exposure to life and property.

Priority Rating

Going beyond rating "benefit and cost", the Planning Team adopted the following process for rating the "priority" of each mitigation action item. Designations of "High", "Medium", and "Low" priority have been assigned to each action item using the following criteria:

Does the Action:

- solve the problem?
- address Vulnerability Assessment?
- reduce the exposure or vulnerability to the highest priority hazard?
- address multiple hazards?
- benefits equal or exceed costs?
- implement a goal, policy, or project identified in the General Plan or Capital Improvement Plan?

Can the Action:

- be implemented with existing funds?
- be implemented by existing state or federal grant programs?
- be completed within the 5-year life cycle of the LHMP?
- be implemented with currently available technologies?

Will the Action:

- be accepted by the community?
- be supported by community leaders?
- adversely impact segments of the population or neighborhoods?
- require a change in local ordinances or zoning laws?
- positive or neutral impact on the environment?
- comply with all local, state and federal environmental laws and regulations?

Is there:

- sufficient staffing to undertake the project?
- existing authority to undertake the project?

As mitigation action items were updated or written the Planning Team, representatives were provided worksheets for each of their assigned action items. Answers to the criteria above determined the priority according to the following scale.

- 1-6 = Low priority
- 7-12 = Medium priority
- 13-18 = High priority

Q&A | ELEMENT C. MITIGATION STRATEGY | C1

Q: C1. Does the plan document each jurisdiction's existing authorities, policies, programs and resources and its ability to expand on and improve these existing policies and programs? (Requirement §201.6(c)(3))

A: See **Mitigation Actions Matrix** below.

Q&A | ELEMENT C. MITIGATION STRATEGY | C4

Q: C4. Does the Plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure? (Requirement §201.6(c)(3)(ii))

A: See **Mitigation Actions Matrix** below.

Q&A | ELEMENT C. MITIGATION STRATEGY | C5

Q: C5. Does the Plan contain an action plan that describes how the actions identified will be prioritized (including cost benefit review), implemented, and administered by each jurisdiction? (Requirement §201.6(c)(3)(iv)); (Requirement §201.6(c)(3)(iii))

A: See **Mitigation Actions Matrix** below.

Q&A | ELEMENT D. MITIGATION STRATEGY | D2

Q: D2. Was the plan revised to reflect progress in local mitigation efforts? (Requirement §201.6(d)(3))

A: See **Mitigation Actions Matrix** below.

Q&A | ELEMENT D. MITIGATION STRATEGY | D3

Q: D3. Was the plan revised to reflect changes in priorities? (Requirement §201.6(d)(3))

A: See **Mitigation Actions Matrix** below.

Mitigation Actions Matrix

Following is **Table: Mitigation Actions Matrix** which identifies the existing and future mitigation activities developed by the Planning Team.

Table: Mitigation Actions Matrix

Mitigation Action Item	Coordinating Agency	Timeline	Goal: Protect Life and Property	Goal: Public Awareness	Goal: Natural Systems	Goal: Emergency Services	Goal: Partnerships and Implementation	Funding Source: AB-Annual Budget, GR-Grant, P-Private	Planning Mechanism: GP-General Plan, CIP, AB-Annual Budget, GR-Grant	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Priority: L-Low, M-Medium, H-High	2017 Comments and Status - Completed, Revised, Deleted, New, Deferred, and Notes
MULTI-HAZARD ACTION ITEMS													
MH-1 Educate the general public on all-hazards mitigation & response (through phone directory, website and billing inserts) in English and Spanish.	Administration, Fire	Ongoing		X				AB	AB	H	L	L	Status - Website, Nixle
MH-2 Develop and promote relationships and interagency partnership to identify deficiencies of early warning systems.	Administration, Fire	Ongoing	X	X		X	X	AB	AB	H	L	M	
MH-3 Build Montebello Community Training Room for City and MMPC use.	South Montebello Irrigation District	Complete	X	X				AB					Completed 2010
MH-4 Educate the public about the importance of implementing the hazard mitigation plan.	Fire, Building, Public Works, and all related City Departments	Ongoing	X	X	X	X	X	AB	AB	H	L	M	
~~MH-5 Educate public on importance of their participation of mitigation plan.~~	~~All City Departments~~	~~2005~~		~~X~~				~~AB~~					Deleted - redundant
MH-6 Educate the public about how to prepare for	Planning	Ongoing	X	X	X	X	X	AB	AB	M	L	M	

Mitigation Action Item	Coordinating Agency	Timeline	Goal: Protect Life and Property	Goal: Public Awareness	Goal: Natural Systems	Goal: Emergency Services	Goal: Partnerships and Implementation	Funding Source: AB-Annual Budget, GR-Grant, P-Private	Planning Mechanism: GP-General Plan, CIP, AB-Annual Budget, GR-Grant	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Priority: L-Low, M-Medium, H-High	2017 Comments and Status - Completed, Revised, Deleted, New, Deferred, and Notes
natural hazards relevant to location.													
MH-7 Educate public about evacuation procedures.	Fire, Police	Ongoing	X	X	X	X	X	AB	AB	H	L	M	
MH-8 Promote business mitigation awareness of hazards and opportunities for mitigation.	Fire, Police	Ongoing	X	X	X	X	X	AB	AB	H	L	M	
~~MH-9 Engage the private sector to contribute.~~	~~All City Departments~~	~~2004~~											Deleted
MH-10 Provide schools with seasonal disaster preparedness literature for students to take home to their families.	Fire, Police	Ongoing	X	X	X	X	X	AB	AB	H	L	M	
MH-11 Design and post disaster preparedness and related links on Fire Department web site.	Fire	Ongoing	X	X	X	X	X	AB	AB	H	H	M	
~~MH-12 Propagate wide spread mitigation with both public and private sectors.~~	~~All City Departments~~	~~2006~~	~~X~~					~~AB~~					Deleted - redundant
MH-13 Improve interagency response methods and procedures.	All Departments	Ongoing	X	X	X	X	X	AB, GR	AB	H	L	M	
MH-14 Develop disaster response drill pre-plans and procedures improved annually.	All Departments	Ongoing	X	X	X	X	X	AB, GR	AB	M	L	M	
~~MH-15 Improve ability and preparedness of emergency responders and the public.~~	~~Fire, Police and Affiliated Agencies/Departments~~	~~2006~~		~~X~~			~~X~~	~~AB~~					Deleted - redundant
MH-16 Increase training, personnel and	Fire	Ongoing	X	X	X	X	X	AB	AB	H	L	M	Utilized AFG Grants in the

Mitigation Action Item	Coordinating Agency	Timeline	Goal: Protect Life and Property	Goal: Public Awareness	Goal: Natural Systems	Goal: Emergency Services	Goal: Partnerships and Implementation	Funding Source: AB-Annual Budget, GR-Grant, P-Private	Planning Mechanism: GP-General Plan, CIP, AB-Annual Budget, GR-Grant	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Priority: L-Low, M-Medium, H-High	2017 Comments and Status - Completed, Revised, Deleted, New, Deferred, and Notes
equipment through alternative funding sources.													past
~~MH-18 Evaluate/identify and provide shelter resource needs and growth development.~~	~~Fire, Red Cross and Shelter Locations~~	~~2007~~											Deleted – not the job of the City
MH-19 Maximize financial reimbursement following disaster declaration by updating knowledge of Disaster Cost Recovery regulations.	Fire, Finance	Ongoing		X		X		AB	AB	H	L	H	Revised action item and moved from EQ
MH-20 Develop Continuity of Operations Plans (COOP) for each department. COOP planning ensures that the critical functions can continue to operate during and after an emergency incident which may prevent access to normally operating systems, such as physical plant, data or communication networks, or transportation.	Fire	1-5 years						GR	AB	H	L	L	New, Status – Transit and Finance COOPs completed in 2012
MH-21 Based on hazard information in the Mitigation Plan and General Plan Safety Element, update the Land Use Element to: ✓ Guide development away from hazardous areas; ✓ Reduce density in the hazardous areas; or ✓ Encourage greater development restrictions on the property.	Planning	1-5 years	X	X	X	X	X	GR	AB	H	M	M	New
MH-22 Encourage development and testing of site	Fire	Ongoing	X	X		X	X	AB	AB	H	L	H	New

Mitigation Action Item	Coordinating Agency	Timeline	Goal: Protect Life and Property	Goal: Public Awareness	Goal: Natural Systems	Goal: Emergency Services	Goal: Partnerships and Implementation	Funding Source: AB-Annual Budget, GR-Grant, P-Private	Planning Mechanism: GP-General Plan, CIP, AB-Annual Budget, GR-Grant	Benefit: L-Low, M-Medium, H-High	Cost: L-Low, M-Medium, H-High	Priority: L-Low, M-Medium, H-High	2017 Comments and Status - Completed, Revised, Deleted, New, Deferred, and Notes
emergency plans for schools, factories, office buildings, shopping malls, hospitals, correctional facilities, stadiums, recreation areas, and other similar facilities.													
MH-23 Train emergency response personnel for various contingencies and response activities, such as evacuation, traffic control, search, and rescue.	Fire	Ongoing	X	X	X	X	X	AB, GR	AB	H	M	H	New
MH-24 Encourage participation by community members in Community Emergency Response Team (CERT). CERT is a volunteer group of citizens who are trained and equipped to respond if emergency services are unable to meet all of the immediate needs of the community following a major disaster.	Fire	Ongoing	X	X	X	X	X	AB	AB	H	M	H	New
MH-25 Educate the public on how insurance should not be considered an alternative to reducing damages for any type of hazard. Instead, insurance does have the value of protecting oneself from financial devastation if damage were to occur.	Planning	Ongoing	X	X	X	X	X	AB	AB	H	L	H	New
MH-26 Encourage residents to prepare themselves by understanding their local hazards,	Fire	Ongoing	X	X	X	X	X	AB	AB	H	L	H	New

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stocking up with necessary items, and planning for how family members should respond if any of a number of possible emergency or disaster events strike.													
MH-27 City to pursue funding to purchase back-up generators for pumping and lift stations in sanitary sewer systems, along with other measures (e.g., alarms, meters, remote controls, and switchgear upgrades).	Fire, Planning, Public Works	1-5 years	X	X	X	X	X	AB, GR	AB	H	M	H	New
MH-28 Utilize new Digital Billboards along Interstate 5 to broadcast emergency notices.	Fire	Ongoing	X	X	X	X	X	AB	AB	H	L	H	New
MH-29 Replace Police Dispatch consoles to be P25 compliant.	Police, Fire	ASAP	X	X	X	X	X	GR	AB	H	M	H	New
MH-30 Seek funding and write a Grading Ordinance.	Planning, Public Works	1 year	X	X	X	X	X	GR	AB	H	M	H	New
MH-31 Pursue funding and prepare Technical Background Report in time for next update to the General Plan Safety Element.													
MH-31 Prepare a post-disaster recovery ordinance that regulates repair activity. It prepares a community to respond to a disaster event in an orderly fashion by requiring citizens to: 1) obtain permits for repairs, 2) refrain from making repairs,	Planning, Building, Public Works, Fire	1-5 years	X	X	X	X	X	GR	AB	H	M	H	New

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or 3) make repairs using standard methods.													
MH-32 Maintain the update the Disaster Movement and Evacuation Route Map.	Planning, Fire	Ongoing	X	X	X	X	X	AB	AB	H	L	H	New
MH-33 Upgrade and improve Greenwood Avenue and Montebello Boulevard as the community's major north-south connector.	Public Works, Planning	1-5 years	X	X	X	X	X	AB, GR	AB	H	H	H	New. Drawn from General Plan Circulation Element
MH-34 Improvements to Greenwood Avenue and Montebello Boulevard should include widening, grade separation structures and signalization.	Public Works, Planning	1-5 years	X	X	X	X	X	AB, GR	AB	H	H	H	New. Drawn from General Plan Circulation Element
MH-35 City should seek to provide an adequate circulation system in the hills which services major regional traffic generators, yet preserves areas which are attractive for residential, open space, and recreational development.	Public Works, Planning	1-5 years	X	X	X	X	X	AB, GR	AB	H	L	H	New. Drawn from General Plan Circulation Element
MH-36 City of Montebello should not be bisected by a new freeway route.	Public Works, Planning	1-5 years	X	X	X	X	X	AB	AB	H	L	H	New. Drawn from General Plan Circulation Element
MH-37 Improve north-south circulation in Montebello by providing at least one major street with a grade-separated railroad crossing.	Public Works, Planning	1-5 years	X	X	X	X	X	AB, GR	AB	H	M	H	New. Drawn from General Plan Circulation Element
MH-38 Provide a circulation system for the Montebello Hills which services the various types of residential and commercial development but at	Public Works, Planning	1-5 years	X	X	X	X	X	AB, GR	AB	H	H	H	New. Drawn from General Plan Circulation Element

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the same time preserves the unique environmental and aesthetic qualities of the hill area.													
MH-39 Provide heating centers as well as cooling centers to protect vulnerable residents from the effects of frost/freezing as well as those of excessive heat, and to host a Community Meeting on how insulate dwellings against extreme weather.	Fire	1-5 years	X	X	X	X	X	AB	AB	H	L	H	New
MH-40 Hold a Community Meeting on how to "wind-proof" dwellings and residences through the use of landscaping design, structural "tie downs," storage of outdoor furniture and children's toys.	Fire	1-5 years	X	X	X	X	X	AB	AB	H	L	H	New
MH-41 Prepare a Threat & Hazard Identification and Risk Assessment (THIRA).	Fire	1-5 years	X	X	X	X	X	AB	AB	H	M	H	New
EARTHQUAKE ACTION ITEMS													
EQ-1 Interdepartmental personnel training for earthquake seismic construction and retrofit.	Building, Fire	2005	X					AB					Completed
EQ-2 As projects are submitted, conduct seismic inspections for residential (and eventually commercial buildings) with pre-1960 foundations.	Building, Fire	Ongoing	X	X				AB					Revised action item
~~EQ-3 Identify Residential Structures not in compliance with Post-1993 building codes~~	~~Building, Fire~~	~~2006~~	~~X~~					~~AB, GR~~					Deleted – cost prohibitive

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~~(through systematic inspections and surveys).~~													
EQ-4 Adopt Municipal Code to enforce seismic upgrades for existing buildings receiving inspections or permits and to ensure seismic codes are implemented in the plans of new buildings & infrastructure.	Building, Fire	Ongoing	X	X	X	X	X	AB	AB	H	L	H	Adopted 2008, 2010, 2013, and 2016 Amendments to the California Building Code
~~EQ-5 Maximize financial reimbursement following disaster declaration by updating knowledge of Disaster Cost Recovery regulations.~~	~~All City Departments~~	~~2006~~		~~X~~									Deleted - moved to Multi-Hazard
~~EQ-6 Prevent structural damage to structures in event of an earthquake.~~	~~Fire, Building~~	~~2004~~	~~X~~					~~AB~~					Deleted
~~EQ-7 Protect life and property in event of a major earthquake.~~	~~Fire, Building, EOC~~	~~2005~~	~~X~~			~~X~~	~~X~~	~~GF~~					Deleted
EQ-8 Evaluate City facilities that are subject to earthquake damage and design retrofit schedule to mitigate hazard.	Building, Fire	Ongoing	X	X	X	X	X	AB, GR	AB	H	L	H	New
EQ-9 Protect new residential structures built within urban wild land interface development area.	Fire, Building	Ongoing	X	X	X	X	X	AB	AB	H	L	H	Status – fuel modification completed as part of Specific Plan development.
EQ-10 Information gained from seismic hazard mapping can be used to assess risk. The first step is collection of geologic information on seismic	Fire, Planning, Building Inspection, Public Works	Ongoing	X	X	X	X	X	AB	AB	H	L	H	New

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sources, soil conditions, and related potential hazards. The second step is to prepare a map showing the approximate locations of various hazards.													
EQ-11 FEMA's HAZUS is a computer-based tool used to quantitatively estimate losses from an earthquake and other hazards. HAZUS was used in the 2016 Mitigation Plan and should be included in the next update.	Planning	5 years	X	X	X	X	X	AB, GR	AB	H	L	H	New
EQ-12 Prepare a campaign for City facilities, residents, and businesses to utilize non-structural mitigation techniques. Many injuries in earthquakes are caused by non-structural hazards, such as attachments to buildings. These include lighting fixtures, windows (glass), pictures, tall bookcases, computers, ornamental decorations on the outside of the buildings (like parapets), gas lines, etc. Activities that can reduce the risk of injury and damage include: anchoring tall bookcases and file cabinets, installing latches on drawers and cabinet doors, restraining desktop computers and appliances, using flexible connections on gas and water lines,	Fire	1-5 years	X	X	X	X	X	AB, GR	AB	H	L	H	New

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mounting framed pictures and mirrors securely, and anchoring and bracing propane tanks and gas cylinders.													
WILDFIRE ACTION ITEMS													
~~WF-1 Prevent the ignition and spread of wild fires within the borders of Montebello.~~	~~Fire~~	~~2004~~	~~X~~					~~GF~~					Deleted – not applicable to properties in the City
~~WF-2 Prevent the buildup of ignitable fire load/brush.~~	~~Fire~~	~~2004~~	~~X~~										Deleted – not applicable to properties in the City
WF-3 Educate the public on importance of the abatement of brush around their homes.	Fire	Ongoing	X	X		X		AB	AB	H	L	H	Revised timeline
~~WF-4 Prevent brush exposure fires to residential development.~~	~~Fire~~	~~2004~~	~~X~~					~~GF~~					Deleted – not applicable to properties in the City
WF-5 Prevent fires/additional damage due to earthquakes.	Building, Fire	2004	X		X	X		AB, GR	AB				
~~WF-7 Protect electrical utilities from seismic damage.~~	~~Building, Fire~~	~~2004~~	~~X~~					~~GF~~					Deleted – cost prohibitive
WF-9 Educate the public on the fact that wildfires can be prevented by arson prevention clean-up activities in areas of abandoned or collapsed structures, accumulated junk or debris, and in areas with a history of storing flammable materials where spills or dumping may have occurred.	Fire	Ongoing	X	X	X	X		AB, GR	AB	H	L	H	New

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WF-10 Roads and driveways should be kept accessible to emergency vehicles and fire equipment. Driveways should be relatively straight and flat, with at least some open spaces to turn. Bridges should be strong enough to support emergency vehicles, with clearance wide and high enough for two-way traffic and emergency vehicle access. Addresses should be visible from the road, and keys to gates around property should be provided to the Fire Department.	Fire	Ongoing	X	X	X	X		AB, GR	AB	H	L	H	New
WF-11 Inform the public that hillsides facing south or west are more vulnerable to increased dryness and heat from sun exposure. Structures should be set back from slopes outside of the "convection cone" of intense heat that is projected up the slope of a hill as a wildfire "climbs" it.	Fire	Ongoing	X	X	X	X		AB, GR	AB	H	L	H	New
WF-12 Inform public that in wildfire prone areas, risk may be decreased by enclosing the foundations of homes and other buildings, rather than leaving them open where undersides can be exposed to blown embers or other materials.	Fire	Ongoing	X	X	X	X		AB, GR	AB	H	L	H	New
WF-13 Inform public that wildfire risk can be alleviated by safely using and storing necessary	Fire	Ongoing	X	X	X	X		AB, GR	AB	H	L	H	New

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flammable materials, including machine fuels. Approved safety cans should be used for storing gasoline, oily rags and other flammable materials. Firewood should be stacked at least 100 feet away and uphill from homes.													
WF-14 Inform public to install and maintain smoke detectors and fire extinguishers on each floor of their homes or other buildings. This equipment should be tested and/or inspected regularly, and smoke detector batteries should be changed twice a year. Everyone in a household or building can be taught how to use a fire extinguisher. Other valuable fire mitigation systems include interior and exterior sprinkler systems.	Fire, Building, Planning	Ongoing	X	X	X	X		AB, GR	AB	H	L	H	New
WF-15 Water supplies for emergency firefighting should be maintained in accordance with National Fire Protection Association (NFPA) standards. Residents should identify and maintain any number of outside water sources such as small ponds, cisterns, wells, swimming pools or hydrants. It is a good idea to have a garden hose that is long enough to reach any area of a home or other structures on a property.	Fire	Ongoing	X	X	X	X		AB, GR	AB	H	L	H	New

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WF-16 Instruct residents on proper evacuation procedures, such as wearing protective clothing (e.g., sturdy shoes, cotton or woolen clothing, long pants, a long-sleeved shirt, gloves and a handkerchief to protect the face); taking a Disaster Supplies Kit; and choosing a route away from fire hazards.	Fire	Ongoing	X	X	X	X		AB, GR	AB	H	L	H	New
WF-17 Instruct residents on need to keep roads and driveways accessible to emergency vehicles and fire equipment. Driveways should be relatively straight and flat, with at least some open spaces to turn. Bridges should be strong enough to support emergency vehicles, with clearance wide and high enough for two-way traffic and emergency vehicle access. Addresses should be visible from the road, and keys to gates around property should be provided to the local fire department.	Fire	Ongoing	X	X	X	X		AB, GR	AB	H	L	H	New
WF-18 Develop program to encourage residents to plan several escape routes away from their homes, by car and foot. It is a good idea to keep a set of hand tools that can be used as fire tools, such as a rake, axe, hand/chainsaw, bucket and shovel. When wildfire threatens, residents should	Fire	Ongoing	X	X	X	X		AB, GR	AB	H	L	H	New

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be instructed to carry and listen to battery-operated radios for reports and evacuation information, and follow instructions from local officials. Cars should be backed into garages or parked in open space facing the direction of escape, with doors and windows closed and the key in the ignition. Garage windows and doors should be closed but left unlocked. If residents have time, they can take steps to protect their homes by closing windows, vent doors, venetian blinds and heavy drapes; removing lightweight curtains; shutting off natural gas at the meter; turning off pilot lights; closing fireplace screens; and moving flammable furniture into the center of the home away from windows and sliding-glass doors. Outside, residents can seal attic and ground vents with precut plywood or commercial seals; turn off propane tanks; place combustible patio furniture inside; connect garden hose to outside taps; set up a portable gasoline-powered pump; place lawn sprinklers on the roof and near aboveground fuel tanks; wet the roof, wet or remove shrubs within 15 feet of the home; and													

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gather fire tools.													
WF-19 Continue to utilize Code Enforcement staff to monitor overgrown vegetation and Palm fronds.	Building, Fire	Ongoing	X	X	X	X		AB	AB	H	L	H	New
FLOODING ACTION ITEMS													
FLD-1 Study urban flood areas and determine if failure of streets are soil or pavement related.	Engineering, Streets	1-5 years	X		X	X		GR	AB	H	H	H	Status – history of street collapses
FLD-2 Distribute information on the National Flood Insurance Program to local businesses in or near flood areas.	Fire, Finance, Economic Development	Ongoing	X	X				AB					
FLD-3 Prevent urban flooding from contamination of city drainage channels.	Fire, Public Works	2004	X					GF					
FLD-4 Maximize effectiveness of mitigating against flood hazards impacting private properties.	Fire, Police, Building, Public Works, Impacted Property Owners	Ongoing	X	X	X	X	X	AB, GR, P	AB	L	H	L	
FLD-5 Proactive annual clean out storm drains.	Public Works	Ongoing	X		X	X		AB, GR	AB	H	M	H	New
FLD-6 Design and construct pump stations in areas subject to urban flooding.	Public Works	1-5 years	X		X	X		AB, GR	AB	H	M	H	New
FLD-7 Seek funding and develop Storm Drain Management Plan and Waste Water Management Plan.	Public Works	1-5 years	X		X	X		AB, GR	AB	H	H	H	New

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FLD-8 Ensure subdivision design standards require elevation data collection during the platting process. Lots may be required to have buildable space above the base flood elevation.	Planning	1-5 years	X		X	X		AB, GR	AB	H	L	H	New
FLD-9 Requirements for building design standards and enforcement for properties in the floodplain include the following: 1) that a residential structure be elevated; and 2) that a nonresidential structure be elevated or floodproofed.	Planning	1-5 years	X		X	X		AB, GR	AB	H	L	H	New
FLD-10 Inform residents that purchasing flood insurance does not prevent a flood from occurring, but it does mitigate a property owner's financial exposure to loss from flood damage. National Flood Insurance Program (NFIP) policies are only available in communities that participate in the program, which is administered by FEMA.	Planning, Fire	1-5 years	X		X	X		AB, GR	AB	H	L	H	New
FLD-11 Use caution in considering alternative uses of wetlands to mitigate flooding. With special soils and hydrology, wetlands serve as natural collection basins for floodwaters. Acting like sponges, wetlands collect water, filter it, and release it slowly into rivers and streams. Protecting and preserving wetlands can go a long	Planning, Fire	1-5 years	X		X	X		AB, GR	AB	H	L	H	New

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way toward preventing flooding in other areas.													
FLD-12 Work with LA County and Army Corps of Engineers to ensure integrity of dams and reservoirs. Although dams and levees may have been constructed properly, failure to maintain them can lead to significant loss of life and property if they are stressed and broken or breached during a flood event. An inspection, maintenance and enforcement program helps to ensure continued structural integrity. Dams or levees need to be kept in good repair. Unnecessary or old and structurally unsound dams should be removed. Planning for dam breaks can include constructing emergency access roads as well as automating pump and flood gate operation. And it never hurts to regulate development in a dam's hydraulic shadow, where flooding would occur if there were a severe dam failure.	Planning, Fire, Public Works	1-5 years	X		X	X		AB, GR	AB	H	L	H	New
FLD-13 Ensure Zoning Ordinance prohibits containers of hazardous materials such as petroleum or chemicals to be located in a flood	Planning, Fire	1-5 years	X		X	X		AB, GR	AB	H	L	H	New

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hazard area. If such a location is necessary, hazardous material containers need to be anchored, because the contents can contaminate water and multiply the damaging effects of flooding by causing fires or explosions, or by otherwise making structures unusable.													
FLD-14 Write a Floodplain Ordinance	Planning	1-5 years	X	X	X	X	X	GR	AB	H	M	H	New
FLD-15 Educate the affected neighborhoods about their specific risks associated with dam failure.	Fire	1-5 year	X	X	X	X	X	GR	AB	H	L	H	New
FLD-16 City staff should continue to work with the Army Corps of Engineers on possible solutions to minimizing threat of dam failure.	Fire, Public Works	Ongoing	X	X	X	X	X	GR	AB	H	M	H	New
DAM FAILURE ACTION ITEMS													
DAM-1 Develop a Dam Inundation Evacuation Plan.	Fire	1 year	X	X	X	X	X	AB	AB	M	L	M	New
DAM-2 Coordinate with LA County about notification system pertaining to the dams/reservoirs in the region.	Fire, Police	1 year	X	X	X	X	X	AB	AB	M	L	M	New
DROUGHT ACTION ITEMS													
DR-1 Enforce Water Conservation Ordinance which prioritizing or controls water use.	Planning	Ongoing						AB	AB	H	H	H	Status – Ordinance effective in 2015

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DR-2 Encourage water saving measures by the City, residents, and businesses including installing low-flow water saving showerheads and toilets and washing of cars	Building, Code Enforcement	Ongoing	X	X	X	X	X	AB	AB	H	L	H	New
DR-3 Continue the current restrictions on outdoor water usage; encourage water conservation (consider incentives such as small rewards or recognitions for installing drought resistance landscaping); discourage water waste by issuing warnings to offenders; host a Water Conservation workshop; invest in water-related "freebies" such as shower timers to give away during City events; encourage proper use of rain barrels; inquire about the Central Basin Municipal Water District retrofit fit efforts; and encourage the use of recycled water where appropriate.	Building, Code Enforcement	Ongoing	X	X	X	X	X	GR	AB	H	L	H	New

Plan Maintenance

The plan maintenance process includes a schedule for monitoring and evaluating the Plan annually and producing a plan revision every five years. This section describes how the City will integrate public participation throughout the plan maintenance process.

Q&A | ELEMENT A: PLANNING PROCESS | A6

Q: A6. Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating and updating the mitigation plan within a 5-year cycle)? (Requirement §201.6(c)(4)(i))

A: See **Method and Scheduling of Plan Implementation** below.

Method and Scheduling of Plan Implementation

The Planning Team that was involved in research and writing of the Plan will also be responsible for implementation. The Planning Team will be led by the Chair of the Planning Team and will be referred to as the Local Mitigation Officer.

	Year 1	Year 2	Year 3	Year 4	Year 5
Monitoring	X	X	X	X	X
Evaluating					X
Internal Planning Team Evaluation	X	X	X	X	X
Cal OES and FEMA Evaluation					X
Updating					X

Monitoring and Implementing the Plan

Plan Adoption

Adoption of the Mitigation Plan by the City's governing body is one of the prime requirements for approval of the plan. Once the plan is completed, the City Council will be responsible for adopting the Mitigation Plan. The governing body has the responsibility and authority to promote sound public policy regarding hazards. The local agency governing body will have the authority to periodically update the plan as it is revised to meet changes in the hazard risks and exposures in the City. The approved Mitigation Plan will be significant in the future growth and development of the City.

The City Council will be responsible for adopting the Mitigation Plan. This governing body has the authority to promote sound public policy regarding hazards. Once the plan has been adopted, the Local Mitigation Officer will be responsible for submitting it to the State Hazard Mitigation Officer at California Emergency Management Agency (Cal OES). Cal OES will then submit the plan to the Federal Emergency Management Agency (FEMA) for review and approval. This review will address the requirements set forth in 44 C.F.R. Section 201.6 (Local Mitigation Plans). Upon acceptance by FEMA, City of Montebello will gain eligibility for Hazard Mitigation Grant Program funds.

Local Mitigation Officer

Under the direction of the Local Mitigation Officer, the Planning Team will take responsibility for plan maintenance and implementation. The Local Mitigation Officer will facilitate the Planning Team meetings and will assign tasks such as updating and presenting the Plan to the members of the Planning Team. Plan implementation and evaluation will be a shared responsibility among all of the Planning Team members. The Local Mitigation Officer will coordinate with City leadership to ensure funding for 5-year updates to Plan as required by FEMA.

The Planning Team will be responsible for coordinating implementation of plan action items and undertaking the formal review process. The Local Mitigation Officer will be authorized to make changes in assignments to the current Planning Team.

The Planning Team will meet no less than quarterly. Meeting dates will be scheduled once the final Planning Team has been established. These meetings will provide an opportunity to discuss the progress of the action items and maintain the partnerships that are essential for the sustainability of the mitigation plan.

Q&A | ELEMENT C. MITIGATION STRATEGY | C6

Q: C6. Does the Plan describe a process by which local governments will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate? (Requirement §201.6(c)(4)(ii))

A: See **Implementation through Existing Program** below.

Implementation through Existing Programs

The City of Montebello addresses statewide planning goals and legislative requirements through its General Plan, its Capital Improvement Plan, and City Building and Safety Codes. The Mitigation Plan provides a series of recommendations - many of which are closely related to the goals and objectives of existing planning programs. The City of Montebello will implement recommended mitigation action items through existing programs and procedures.

The City of Montebello Planning and Community Development Department is responsible for adhering to the State of California's Building and Safety Codes. In addition, the Planning Team will work with other agencies at the state level to review, develop and ensure Building and Safety Codes are adequate to mitigate or present damage by hazards. This is to ensure that life-safety criteria are met for new construction.

Some of the goals and action items in the Mitigation Plan will be achieved through activities recommended in the CIP. Various City departments develop the CIP and review it on an annual basis. Upon annual review of the CIP, the Planning Team will work with the City departments to identify areas that the Mitigation Plan action items are consistent with CIP goals and integrate them where appropriate.

Upon FEMA approval, the Planning Team will begin the process of incorporating existing planning mechanisms at the City level. The meetings of the Planning Team will provide an opportunity for Planning Team members to report back on the progress made on the integration of mitigation planning elements into City planning documents and procedures.

Economic Analysis of Mitigation Projects

FEMA's approach to identify the costs and benefits associated with hazard mitigation strategies, measures, or projects fall into two general categories: benefit/cost analysis and cost-effectiveness analysis.

Conducting benefit/cost analysis for a mitigation activity can assist communities in determining whether a project is worth undertaking now, in order to avoid disaster-related damages later.

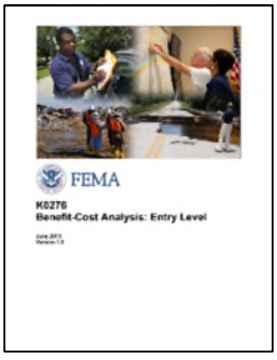
Cost-effectiveness analysis evaluates how best to spend a given amount of money to achieve a specific goal. Determining the economic feasibility of mitigating hazards can provide decision-makers with an understanding of the potential benefits and costs of an activity, as well as a basis upon which to compare alternative projects.

Given federal funding, the Planning Team will use a FEMA-approved benefit/cost analysis approach to identify and prioritize mitigation action items. For other projects and funding sources, the Planning Team will use other approaches to understand the costs and benefits of each action item and develop a prioritized list.

The "benefit", "cost", and overall "priority" of each mitigation action item was included in the Mitigation Actions Matrix located in Part III: Mitigation Strategies. A more technical assessment will be required in the event grant funding is pursued through the Hazard Mitigation Grant Program. FEMA Benefit-Cost Analysis Guidelines are discussed below.

FEMA Benefit-Cost Analysis Guidelines

The Stafford Act authorizes the President to establish a program to provide technical and financial assistance to state and local governments to assist in the implementation of hazard mitigation measures that are cost effective and designed to substantially reduce injuries, loss of life, hardship, or the risk of future damage and destruction of property. To evaluate proposed hazard mitigation projects prior to funding FEMA requires a Benefit-Cost Analysis (BCA) to validate cost effectiveness. BCA is the method by which the future benefits of a mitigation project are estimated and compared to its cost. The end result is a benefit-cost ratio (BCR), which is derived from a project's total net benefits divided by its total project cost. The BCR is a numerical expression of the cost effectiveness of a project. A project is considered to be cost effective when the BCR is 1.0 or greater, indicating the benefits of a prospective hazard mitigation project are sufficient to justify the costs.



Although the preparation of a BCA is a technical process, FEMA has developed software, written materials, and training to support the effort and assist with estimating the expected future benefits over the useful life of a retrofit project. It is imperative to conduct a BCA early in the project development process to ensure the likelihood of meeting the cost-effective eligibility requirement in the Stafford Act.

The BCA program consists of guidelines, methodologies and software modules for a range of major natural hazards including:

- ✓ Flood (Riverine, Coastal Zone A, Coastal Zone V)
- ✓ Hurricane Wind
- ✓ Hurricane Safe Room

- ✓ Damage-Frequency Assessment
- ✓ Tornado Safe Room
- ✓ Earthquake
- ✓ Wildfire

The BCA program provides up to date program data, up to date default and standard values, user manuals and training. Overall, the program makes it easier for users and evaluators to conduct and review BCAs and to address multiple buildings and hazards in a single BCA module run.

Q&A | ELEMENT A: PLANNING PROCESS | A6

Q: A6. Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating and updating the mitigation plan within a 5-year cycle)? (Requirement §201.6(c)(4)(i))

A: See **Evaluating and Updating the Plan** below.

Evaluating and Updating the Plan

Formal Review Process

The Mitigation Plan will be evaluated on an annual basis to determine the effectiveness of programs, and to reflect changes in land development or programs that may affect mitigation priorities. The evaluation process includes a firm schedule and timeline, and identifies the agencies and organizations participating in plan evaluation. The Local Mitigation Officer or designee will be responsible for contacting the Planning Team members and organizing the annual meeting. Planning Team members will be responsible for monitoring and evaluating the progress of the mitigation strategies in the Plan.

The Planning Team will review the goals and action items to determine their relevance to changing situations in the City, as well as changes in State or Federal policy, and to ensure they are addressing current and expected conditions. The Planning Team will also review the **Risk Assessment** portion of the Plan to determine if this information should be updated or modified, given any new available data. The coordinating organizations responsible for the various action items will report on the status of their projects, the success of various implementation processes, difficulties encountered, success of coordination efforts, and which strategies should be revised.

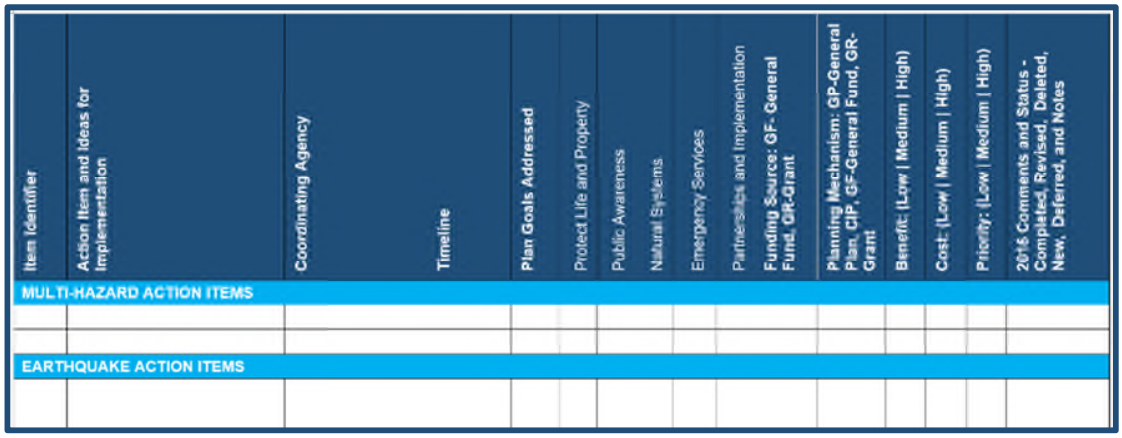
The Local Mitigation Officer will assign the duty of updating the Plan to one or more of the Planning Team members. The designated Planning Team members will have three months to make appropriate changes to the Plan before submitting it to the Planning Team members. The Planning Team will also notify all holders of the City plan when changes have been made. Every five years the updated plan will be submitted to the State Hazard Mitigation Officer at the California Office of Emergency Services and the Federal Emergency Management Agency for review.

At each of the quarterly Planning Team meetings, the Local Mitigation Officer will facilitate a discussion on each section of the FEMA-approved Plan:

Planning Process – Update as necessary, including regulatory changes.

Risk Assessment - Determine if this information should be updated or modified, given any new available data.

Mitigation Strategies - Review the goals and action items to determine their relevance to changing situations in the City, as well as changes in State or Federal policy, and to ensure they are addressing current and expected conditions. Most importantly, is the thorough review of the Mitigation Action Matrix. The coordinating organizations responsible for the various action items will report on the status of their projects, the success of various implementation processes, difficulties encountered, success of coordination efforts, and which strategies should be revised.



Item Identifier	Action Item and Ideas for Implementation	Coordinating Agency	Timeline	Plan Goals Addressed							Funding Source: GF- General Fund, GR-Grant	Planning Mechanism: GP-General Plan, CIP, GF-General Fund, GR-Grant	Benefit: (Low | Medium | High)	Cost: (Low | Medium | High)	Priority: (Low | Medium | High)	2016 Comments and Status - Completed, Revised, Deleted, New, Deferred, and Notes
					Protect Life and Property	Public Awareness	Natural Systems	Emergency Services	Partnerships and Implementation							
MULTI-HAZARD ACTION ITEMS																
EARTHQUAKE ACTION ITEMS																

The Local Mitigation Officer will assign the duty of updating the Plan to one or more of the Planning Team members. The designated Planning Team members will have three months to make appropriate changes to the Plan before submitting it to the Planning Team members. The Planning Team will also notify all holders of the City plan when changes have been made. Every five years the updated plan will be submitted to the State Hazard Mitigation Officer at the California Office of Emergency Services and the Federal Emergency Management Agency for review and approval.

Q&A | ELEMENT A: PLANNING PROCESS | A5

Q: A5. Is there discussion of how the community(ies) will continue public participation in the plan maintenance process? (Requirement §201.6(c)(4)(iii))

A: See **Continued Public Involvement** below.

Continued Public Involvement

The City of Montebello is dedicated to involving the public and external agencies directly in the continual review and updates to the Mitigation Plan. Copies of the plan will be catalogued and made available at City Hall and at all City operated public libraries. The existence and location of these copies will be publicized in City newsletters and on the City website. This site will also contain an email address and phone number where people can direct their comments and concerns. A public meeting will also be held after each evaluation or when deemed necessary by the Planning Team. The meetings will provide the public a forum in which they can express their concerns, opinions, or ideas about the Plan.

The Local Mitigation Officer will be responsible for using City resources to publicize the annual public meetings and maintain public involvement through the public access channel, web page, and newspapers.

PART IV: APPENDIX

General Hazard Overviews

Earthquake Hazards

Measuring and Describing Earthquakes

An earthquake is a sudden motion or trembling that is caused by a release of strain accumulated within or along the edge of the Earth's tectonic plates. The effects of an earthquake can be felt far beyond the site of its occurrence. They usually occur without warning and, after just a few seconds, can cause massive damage and extensive casualties. Common effects of earthquakes are ground motion and shaking, surface fault ruptures, and ground failure. Ground motion is the vibration or shaking of the ground during an earthquake. When a fault ruptures, seismic waves radiate, causing the ground to vibrate. The severity of the vibration increases with the amount of energy released and decreases with distance from the causative fault or epicenter. Soft soils can further amplify ground motions. The severity of these effects is dependent on the amount of energy released from the fault or epicenter. One way to express an earthquake's severity is to compare its acceleration to the normal acceleration due to gravity. The acceleration due to gravity is often called "g". A ground motion with a peak ground acceleration of 100%g is very severe. Peak Ground Acceleration (PGA) is a measure of the strength of ground motion. PGA is used to project the risk of damage from future earthquakes by showing earthquake ground motions that have a specified probability (10%, 5%, or 2%) of being exceeded in 50 years. These ground motion values are used for reference in construction design for earthquake resistance. The ground motion values can also be used to assess relative hazard between sites, when making economic and safety decisions.

When a fault ruptures, seismic waves radiate, causing the ground to vibrate. The severity of the vibration increases with the amount of energy released and decreases with distance from the causative fault or epicenter.

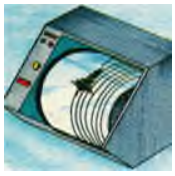
Another tool used to describe earthquake intensity is the Magnitude Scale. The Magnitude Scale is sometimes referred to as the Richter Scale. The two are similar but not exactly the same. The Magnitude Scale was devised as a means of rating earthquake strength and is an indirect measure of seismic energy released. The Scale is logarithmic with each one-point increase corresponding to a 10-fold increase in the amplitude of the seismic shock waves generated by the earthquake. In terms of actual energy released, however, each one-point increase on the Richter scale corresponds to about a 32-fold increase in energy released. Therefore, a Magnitude 7 (M7) earthquake is 100 times (10 X 10) more powerful than a M5 earthquake and releases 1,024 times (32 X 32) the energy.

An earthquake generates different types of seismic shock waves that travel outward from the focus or point of rupture on a fault. Seismic waves that travel through the earth's crust are called body waves and are divided into primary (P) and secondary (S) waves. Because P waves move faster (1.7 times) than S waves, they arrive at the seismograph first. By measuring the time delay between arrival of the P and S waves and knowing the distance to the epicenter, seismologists can compute the magnitude for the earthquake.

The duration of an earthquake is related to its magnitude but not in a perfectly strict sense. There are two ways to think about the duration of an earthquake. The first is the length of time it takes for the fault to rupture and the second is the length of time shaking is felt at any given point (e.g. when someone says "I felt it shake for 10 seconds" they are making a statement about the duration of shaking). (Source: www.usgs.gov)

The Modified Mercalli Scale (MMI) is another means for rating earthquakes, but one that attempts to quantify intensity of ground shaking. Intensity under this scale is a function of distance from the epicenter (the closer to the epicenter the greater the intensity), ground acceleration, duration of ground shaking, and degree of structural damage. The Modified Mercalli Intensity Scale below rates the level of severity of an earthquake by the amount of damage and perceived shaking.

Table: Modified Mercalli Intensity Scale

	MMI Value	Description of Shaking Severity	Summary Damage Description Used on 1995 Maps	Full Description
	I			Not Felt
	II			Felt by persons at rest, on upper floors, or favorably placed.
	III			Felt indoors. Hanging objects swing. Vibration like passing of light trucks. Duration estimated. May not be recognized as an earthquake.
	IV			Hanging objects swing. Vibration like passing of heavy trucks; or sensation of a jolt like a heavy ball striking the walls. Standing motorcars rock. Windows, dishes, doors rattle. In the upper range of IV, wooden walls and frame creak.
	V	Light	Pictures Move	Felt outdoors; direction estimated. Sleepers wakened. Liquids disturbed, some spilled. Small unstable objects displaced or upset. Doors swing, close, open. Shutters, pictures move. Pendulum clock stop, start, change rate.

	MMI Value	Description of Shaking Severity	Summary Damage Description Used on 1995 Maps	Full Description
	VI	Moderate	Objects Fall	Felt by all. Many frightened and run outdoors. Persons walk unsteadily. Windows, dishes, glassware broken. Knickknacks, books, etc., off shelves. Pictures off walls. Furniture moved or overturned. Weak plaster and masonry D cracked.
	VII	Strong	Nonstructural Damage	Difficult to stand. Noticed by drivers of motorcars. Hanging objects quiver. Furniture broken. Damage to masonry, including cracks. Weak chimneys broken at roofline. Fall of plaster, loose bricks, stones, tiles, cornices. Some cracks in masonry C. Small slides and caving in along sand or gravel banks. Concrete irrigation ditches damaged.
	VIII	Very Strong	Moderate Damage	Steering of motorcars affected. Damage to masonry C, partial collapse. Some damage to masonry B; none to masonry A. Fall of stucco and some masonry walls. Twisting, fall of chimneys, factory stacks, monuments, towers, and elevated tanks. Frame houses moved on foundations if not bolted down; loose panel walls thrown out. Cracks in wet ground and on steep slopes.
	IX	Violent	Heavy damage	General panic. Damage to masonry buildings ranges from collapse to serious damage unless modern design. Wood-frame structures rack, and, if not bolted, shifted off foundations. Underground pipes broken.
	X	Very Violent	Extreme Damage	Most masonry and frame structures destroyed with their foundations. Some well-built wooden structures and bridges destroyed. Serious damage to dams, dikes, embankments. Large landslides. Water thrown on banks of canals, rivers, lakes, etc. Sand and mud shifted horizontally on beaches and flat land.
	XI			Rails bent greatly. Underground pipelines completely out of services.
	XII			Damage nearly total. Large rock masses displaced. Lines of sight and level distorted. Objects thrown into air.

Earthquake Related Hazards

Ground shaking, landslides, liquefaction, and amplification are the specific hazards associated with earthquakes. The severity of these hazards depends on several factors, including soil and slope conditions, proximity to the fault, earthquake magnitude, and the type of earthquake.

Ground Shaking

Ground shaking is the motion felt on the earth's surface caused by seismic waves generated by the earthquake. It is the primary cause of earthquake damage. The strength of ground shaking depends on the magnitude of the earthquake, the type of fault, and distance from the epicenter (where the earthquake originates). Buildings on poorly consolidated and thick soils will typically see more damage than buildings on consolidated soils and bedrock.

Seismic activity along nearby or more distant fault zones are likely to cause ground shaking within the City limits.

Earthquake-Induced Landslide Potential

Generally, these types of failures consist of rock falls, disrupted soil slides, rock slides, soil lateral spreads, soil slumps, soil block slides, and soil avalanches. Areas having the potential for earthquake-induced landslides generally occur in areas of previous landslide movement, or where local topographic, geological, geotechnical, and subsurface water conditions indicate a potential for permanent ground displacements.

Liquefaction

Liquefaction occurs when ground shaking causes wet granular soils to change from a solid state to a liquid state. This results in the loss of soil strength and the soil's ability to support weight. Buildings and their occupants are at risk when the ground can no longer support these structures. Liquefaction generally occurs during significant earthquake activity, and structures located on soils such as silt or sand may experience significant damage during an earthquake due to the instability of structural foundations and the moving earth. Many communities in Southern California are built on ancient river bottoms and have sandy soil. In some cases, the soil may be subject to liquefaction, depending on the depth of the water table.

Wildfire Hazards

Definition

A wildfire is an uncontrolled fire spreading through vegetative fuels and exposing or possibly consuming structures. They often begin unnoticed and spread quickly. Naturally occurring and non-native species of grasses, brush, and trees fuel wildfires. A wildland fire is a wildfire in an area in which development is essentially nonexistent, except for roads, railroads, power lines and similar facilities. A wildland/urban interface fire is a wildfire in a geographical area where structures and other human development meet or intermingle with wildland or vegetative fuels.

People start more than 80 percent of wildfires, usually as debris burns, arson, or carelessness. Lightning strikes are the next leading cause of wildfires. Wildfire behavior is based on three primary factors: fuel, topography, and weather. The type, and amount of fuel, as well as its burning qualities and level of moisture affect wildfire potential and behavior. The continuity of fuels, expressed in both horizontal and vertical components is also a determinant of wildfire potential and behavior. Topography is important because it affects the movement of air (and thus the fire) over the ground surface. The slope and shape of terrain can change the speed at which the fire travels, and the ability of firefighters to reach and extinguish the fire. Weather affects the probability of wildfire and has a significant effect on its behavior. Temperature, humidity and wind (both short and long term) affect the severity and duration of wildfires. Riverside County's topography, consisting of semi-arid plains and rolling highlands, when fueled by shrub overgrowth, occasional Santa Ana winds and high temperatures, creates an ever-present threat of wildland fire. Extreme weather conditions such as high temperature, low humidity, and/or winds of extraordinary force may cause an ordinary fire to expand into one of massive proportions.



For thousands of years, fires have been a natural part of the ecosystem in Southern California. However, wildfires present a substantial hazard to life and property in communities built within or adjacent to hillsides and mountainous areas. There is a huge potential for losses due to wildland/urban interface fires in Southern California.

Wildfire Threat

In urban areas, the effectiveness of fire protection efforts is based upon several factors, including the age of structures, efficiency of circulation routes that ultimately affect response times and availability of water resources to combat fires. In wildland areas, taking the proper precautions, such as the use of fire resistant building materials, a pro-active fire Prevention inspection program, and the development of defensible space around structures where combustible vegetation is controlled, can protect developed lands from fires and, therefore, reduce the potential loss of life and property.



Other factors contribute to the severity of fires including weather and winds. Specifically, winds commonly referred to as Santa Ana winds, which occur during fire season (typically from June to the first significant rain in November) are particularly significant. Such "fire weather" is characterized by several days of hot dry weather and high winds, resulting in low fuel moisture in vegetation.

California experiences large, destructive wildland fires almost every year, and Los Angeles County is no exception. Wildland fires have occurred within the County, particularly in the fall of the year, ranging from small, localized fires to disastrous fires covering thousands of acres. The most severe fire protection problem in the area is wildland fire during Santa Ana wind conditions.

The 2003 Southern California Fires

The fall of 2003 marked the most destructive wildfire season in California history. In a ten-day period, 12 separate fires raged across Southern California in Los Angeles, Riverside, and San Bernardino, San Diego and Ventura counties. The massive "Cedar Fire" in San Diego County alone consumed 2,800 homes and burned over a quarter of a million acres.

In October 2003, Southern California experienced the most devastating wildland fire disaster in state history. According to the Governor's Blue Ribbon Panel Fire Commission Report (2004), over 739,597 acres burned; 3,631 homes, 36 commercial properties, and 1,169 outbuildings were destroyed; 246 people were injured; and 24 people died, including one firefighter. At the height of the siege, 15,631 personnel were assigned to fight the fires.



The 2007 Southern California Fires

In late October 2007, Southern California experienced an unusually severe fire weather event characterized by intense, dry, gusty Santa Ana winds. This weather event drove a series of destructive wildfires that took a devastating toll on people, property, natural resources, and infrastructure. Although some fires burned into early November, the heaviest damage occurred during the first three days of the siege when the winds were the strongest.

According to CAL FIRE, during this siege, 17 people lost their lives, ten were killed by the fires outright, three were killed while evacuating, four died from other fire siege related causes, and 140 firefighters, and an unknown number of civilians were injured. A total of 3,069 homes and other buildings were destroyed, and hundreds more were damaged. Hundreds of thousands of people were evacuated at the height of the siege. The fires burned over half a million acres, including populated areas, wildlife habitat and watershed. Portions of the electrical power distribution network, telecommunications systems, and even some community water sources were destroyed. Transportation was disrupted over a large area for several days, including numerous road closures. Both the Governor of California and the President of the United States personally toured the ongoing fires. Governor Schwarzenegger proclaimed a state of

emergency in seven counties before the end of the first day. President Bush quickly declared a major disaster. While the total impact of the 2007 fire siege was less than the disastrous fires of 2003, it was unquestionably one of the most devastating wildfire events in the history of California.

Wildfire Characteristics

There are three categories of wildland/urban interface fire: The classic wildland/urban interface exists where well-defined urban and suburban development presses up against open expanses of wildland areas; the mixed wildland/urban interface is characterized by isolated homes, subdivisions, and small communities situated predominantly in wildland settings. The occluded wildland/urban interface exists where islands of wildland vegetation occur inside a largely urbanized area. Certain conditions must be present for significant interface fires to occur. The most common conditions include: hot, dry and windy weather; the inability of fire protection forces to contain or suppress the fire; the occurrence of multiple fires that overwhelm committed resources; and a large fuel load (dense vegetation). Once a fire has started, several conditions influence its behavior, including fuel topography, weather, drought, and development.

Southern California has two distinct areas of risk for wildland fire. The foothills and lower mountain areas are most often covered with scrub brush or chaparral. The higher elevations of mountains also have heavily forested terrain. The lower elevations covered with chaparral create one type of exposure.

The higher elevations of Southern California's mountains are typically heavily forested. The magnitude of the 2003 fires is the result of three primary factors: (1) severe drought, accompanied by a series of storms that produce thousands of lightning strikes and windy conditions; (2) an infestation of bark beetles that has killed thousands of mature trees; and (3) the effects of wildfire suppression over the past century that has led to buildup of brush and small diameter trees in the forests.

The Interface

One challenge Southern California faces regarding the wildfire hazard is from the increasing number of houses being built on the urban/wildland interface. Every year the growing population expands further into the hills and mountains, including forest lands. The increased "interface" between urban/suburban areas, and the open spaces created by this expansion, produces a significant increase in threats to life and property from fires, and pushes existing fire protection systems beyond original or current design and capability. Property owners in the interface are not aware of the problems and fire hazards or risks on their own property. Furthermore, human activities increase the incidence of fire ignition and potential damage.

Fuel

Fuel is the material that feeds a fire and is a key factor in wildfire behavior. Fuel is classified by volume and by type. Volume is described in terms of "fuel loading," or the amount of available vegetative fuel.

The type of fuel also influences wildfire. Chaparral is a primary fuel of Southern California wildfires. Chaparral habitat ranges in elevation from near sea level to over 5,000 feet in Southern California. Chaparral communities experience long dry summers and receive most of their annual precipitation from winter rains. Although chaparral is often considered as a single

species, there are two distinct types; hard chaparral and soft chaparral. Within these two types are dozens of different plants, each with its own particular characteristics.

An important element in understanding the danger of wildfire is the availability of diverse fuels in the landscape, such as natural vegetation, manmade structures and combustible materials. A house surrounded by brushy growth rather than cleared space allows for greater continuity of fuel and increases the fire's ability to spread. After decades of fire suppression "dog-hair" thickets have accumulated, which enable high intensity fires to flare and spread rapidly.

Topography

Topography influences the movement of air, thereby directing a fire course. For example, if the percentage of uphill slope doubles, the rate of spread in wildfire will likely double. Gulches and canyons can funnel air and act as chimneys, which intensify fire behavior and cause the fire to spread faster. Solar heating of dry, south-facing slopes produces up slope drafts that can complicate fire behavior. Unfortunately, hillsides with hazardous topographic characteristics are also desirable residential areas in many communities. This underscores the need for wildfire hazard mitigation and increased education and outreach to homeowners living in interface areas.

Weather

Weather patterns combined with certain geographic locations can create a favorable climate for wildfire activity. Areas where annual precipitation is less than 30 inches per year are extremely fire susceptible. High-risk areas in Southern California share a hot, dry season in late summer and early fall when high temperatures and low humidity favor fire activity. The so-called "Santa Ana" winds, which are heated by compression as they flow down to Southern California from Utah, create a particularly high risk, as they can rapidly spread what might otherwise be a small fire.

Drought

Recent concerns about the effects of climate change, particularly drought, are contributing to concerns about wildfire vulnerability. The term 'drought' is applied to a period in which an unusual scarcity of rain causes a serious hydrological imbalance. Unusually dry winters, or significantly less rainfall than normal, can lead to relatively drier conditions and leave reservoirs and water tables lower. Drought leads to problems with irrigation and contributes to additional fires, or increased difficulty in fighting fires.

Development

Growth and development in scrubland and forested areas is increasing the number of human-caused structures in Southern California interface areas. Wildfire affects development, yet development can also influence wildfire. Owners often prefer homes that are private with scenic views, nestled in vegetation, and use natural materials. A private setting is usually far from public roads, or hidden behind a narrow, curving driveway. These conditions, however, make evacuation and firefighting difficult. The scenic views found along mountain ridges can also mean areas of dangerous topography. Natural vegetation contributes to scenic beauty, but it may also provide a ready trail of fuel leading a fire directly to the combustible fuels of the home itself.

Flood Hazards

Flood Terminology

Floodplain

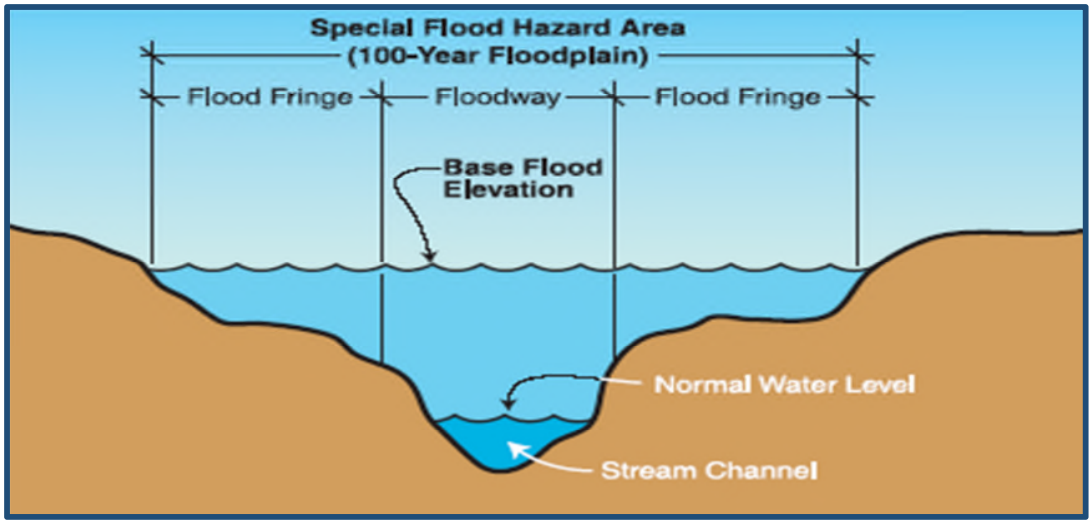
A floodplain is a land area adjacent to a river, stream, lake, estuary, or other water body that is subject to flooding. This area, if left undisturbed, acts to store excess flood water. The floodplain is made up of two sections: the floodway and the flood fringe.

100-Year Flood

The 100-year flooding event is the flood having a one percent chance of being equaled or exceeded in magnitude in any given year. Contrary to popular belief, it is not a flood occurring once every 100 years. The 100-year floodplain is the area adjoining a river, stream, or watercourse covered by water in the event of a 100-year flood. Schematic: Floodplain and Floodway shows the relationship of the floodplain and the floodway.

The 100-year flooding event is the flood having a 1% chance of being equaled or exceeded in magnitude in any given year. **Contrary to popular belief, it is not a flood occurring once every 100 years.**

Figure: Floodplain and Floodway
(Source: FEMA How-To-Guide Assessing Hazards)



Floodway

The floodway is one of two main sections that make up the floodplain. Floodways are defined for regulatory purposes. Unlike floodplains, floodways do not reflect a recognizable geologic feature. For NFIP purposes, floodways are defined as the channel of a river or stream, and the overbank areas adjacent to the channel. The floodway carries the bulk of the flood water downstream and is usually the area where water velocities and forces are the greatest. NFIP regulations require that the floodway be kept open and free from development or other structures that would obstruct or divert flood flows onto other properties.

Base Flood Elevation (BFE)

The term "Base Flood Elevation" refers to the elevation (normally measured in feet above sea level) that the base flood is expected to reach. Base flood elevations can be set at levels other than the 100-year flood. Some communities use higher frequency flood events as their base flood elevation for certain activities, while using lower frequency events for others. For example, for the purpose of storm water management, a 25-year flood event might serve as the base flood elevation; while the 500-year flood event serves as base flood elevation for the tie down of mobile homes. The regulations of the NFIP focus on development in the 100-year floodplain.

Types of Flooding

Two types of flooding primarily affect the City of Montebello: slow-rise or flash flooding. Slow-rise floods in Montebello may be preceded by a warning period of hours or days. Evacuation and sandbagging for slow-rise floods have often effectively lessened flood related damage. Conversely, flash floods are most difficult to prepare for, due to extremely limited, if any, advance warning and preparation time. Unlike most of California, the areas of Los Angeles County that are subject to slow-rise flooding are not associated with overflowing rivers, aqueducts, canals or lakes. Slow-rise flooding in Montebello is usually the result of one or a combination of the following factors: extremely heavy rainfall, saturated soil, area recently burned in wild fires with inadequate new ground cover growth, or heavy rainfall with runoff from melting mountain snow.

Urban Flooding

As land is converted from fields or woodlands to roads and parking lots, it loses its ability to absorb rainfall. Urbanization of a watershed changes the hydrologic systems of the basin. Heavy rainfall collects and flows faster on impervious concrete and asphalt surfaces. The water moves from the clouds, to the ground, and into streams at a much faster rate in urban areas. Adding these elements to the hydrological systems can result in flood waters that rise very rapidly and peak with violent force.

The City of Montebello has a high concentration of impermeable surfaces that either collect water, or concentrate the flow of water in unnatural channels. During periods of urban flooding, streets can become swift moving rivers and basements can fill with water. Storm drains often back up with vegetative debris causing additional, localized flooding.

Riverine Flooding

Riverine flooding is the overbank flooding of rivers and streams. The natural processes of riverine flooding add sediment and nutrients to fertile floodplain areas. Flooding in large river systems typically results from large-scale weather systems that generate prolonged rainfall over a wide geographic area, causing flooding in hundreds of smaller streams, which then drain into the major rivers. Shallow area flooding is a special type of riverine flooding. FEMA defines shallow flood hazards as areas that are inundated by the 100-year flood with flood depths of only one to three feet. These areas are generally flooded by low velocity sheet flows of water.

Definitions of FEMA Flood Zone Designations

Flood zones are geographic areas that the FEMA has defined according to varying levels of flood risk. These zones are depicted on a community's Flood Insurance Rate Map (FIRM) or Flood Hazard Boundary Map. Each zone reflects the severity or type of flooding in the area.

Moderate to Low Risk Areas

In communities that participate in the NFIP, flood insurance is available to all property owners and renters in these zones:

ZONE	DESCRIPTION
B and X (shaded)	Area of moderate flood hazard, usually the area between the limits of the 100-year and 500-year floods. B Zones are also used to designate base floodplains of lesser hazards, such as areas protected by levees from 100-year flood, or shallow flooding areas with average depths of less than one foot or drainage areas less than 1 square mile.
C and X (unshaded)	Area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level. Zone C may have ponding and local drainage problems that don't warrant a detailed study or designation as base floodplain. Zone X is the area determined to be outside the 500-year flood and protected by levee from 100-year flood.

High Risk Areas

In communities that participate in the NFIP, mandatory flood insurance purchase requirements apply to all of these zones:

ZONE	DESCRIPTION
A	Areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. Because detailed analyses are not performed for such areas; no depths or base flood elevations are shown within these zones.
AE	The base floodplain where base flood elevations are provided. AE Zones are now used on new format FIRMs instead of A1-A30 Zones.
A1-30	These are known as numbered A Zones (e.g., A7 or A14). This is the base floodplain where the FIRM shows a BFE (old format).
AH	Areas with a 1% annual chance of shallow flooding, usually in the form of a pond, with an average depth ranging from 1 to 3 feet. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Base flood elevations derived from detailed analyses are shown at selected intervals within these zones.
AO	River or stream flood hazard areas, and areas with a 1% or greater chance of shallow flooding each year, usually in the form of sheet flow, with an average depth ranging from 1 to 3 feet. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Average flood depths derived from detailed analyses are shown within these zones.

ZONE	DESCRIPTION
AR	Areas with a temporarily increased flood risk due to the building or restoration of a flood control system (such as a levee or a dam). Mandatory flood insurance purchase requirements will apply, but rates will not exceed the rates for unnumbered A zones if the structure is built or restored in compliance with Zone AR floodplain management regulations.
A99	Areas with a 1% annual chance of flooding that will be protected by a Federal flood control system where construction has reached specified legal requirements. No depths or base flood elevations are shown within these zones.

Undetermined Risk Areas

ZONE	DESCRIPTION
D	Areas with possible but undetermined flood hazards. No flood hazard analysis has been conducted. Flood insurance rates are commensurate with the uncertainty of the flood risk.

Dam Failure Hazards

Hazard Characteristics

Definition

Dams are man-made structures built for a variety of uses including flood protection, power, agriculture, water supply, and recreation. When dams are constructed for flood protection, they usually are engineered to withstand a flood with a computed risk of occurrence. For example, a dam may be designed to contain a flood at a location on a stream that has a certain probability of occurring in any one year. If a larger flood occurs, then that structure will be overtopped. Overtopping is the primary cause of earthen dam failure in the United States.

Failed dams can create floods that are catastrophic to life and property as a result of the tremendous energy of the released water. A catastrophic dam failure could easily overwhelm local response capabilities and require mass evacuations to save lives. Dams typically are constructed of earth, rock, concrete, or mine tailings. Two factors that influence the potential severity of a full or partial dam failure are the amount of water impounded and the density, type, and value of development and infrastructure located downstream.

Dam failures can result from any one or a combination of the following causes:

- ✓ Prolonged periods of rainfall and flooding, resulting in excess overtopping flows
- ✓ Earthquake
- ✓ Inadequate spillway capacity, resulting in excess overtopping flows
- ✓ Internal erosion caused by embankment or foundation leakage or piping
- ✓ Improper design
- ✓ Improper maintenance
- ✓ Negligent operation
- ✓ Failure of upstream dams on the same waterway

Since 1929, the State of California is responsible for overseeing dams to safeguard life and property (California Department of Resources, 1995). This legislation was prompted by the 1928 failure of St. Francis Dam. In 1965, the law was amended to include off stream storage reservoirs due to the 1963 failure of Baldwin Hill Reservoir. In 1973, Senate Bill 896 was enacted to require dam owners, under the direction of Cal OES, to show the possible inundation path in the event of a dam failure.

Governmental assistance could be required and continued for an extended period. These efforts are required to remove debris and clear roadways, demolish unsafe structures, assist in reestablishing public services and utilities, and provide continuing care and welfare for the affected population including, as required, temporary housing for displaced persons.

Drought Hazards
Hazard Characteristics

Definition

Drought is defined as a deficiency of precipitation over an extended period of time, usually a season or more. This deficiency results in a water shortage for some activity, group, or environmental sector. Drought should be considered relative to some long-term average condition of balance between precipitation and evapotranspiration (i.e., evaporation + transpiration) in a particular area, a condition often perceived as "normal". It is also related to the timing (e.g., principal season of occurrence, delays in the start of the rainy season, occurrence of rains in relation to principal crop growth stages) and the effectiveness of the rains (e.g., rainfall intensity, number of rainfall events). Other climatic factors such as high temperature, high wind, and low relative humidity are often associated with it in many regions of the world and can significantly aggravate its severity. Drought should not be viewed as merely a physical phenomenon or natural event. Its impacts on society result from the interplay between a natural event (less precipitation than expected resulting from natural climatic variability) and the demand people place on water supply. Human beings often exacerbate the impact of drought. Recent droughts in both developing and developed countries and the resulting economic and environmental impacts and personal hardships have underscored the vulnerability of all societies to this "natural" hazard.

One dry year does not normally constitute a drought in California, but serves as a reminder of the need to plan for droughts. California's extensive system of water supply infrastructure - its reservoirs, groundwater basins, and inter-regional conveyance facilities - mitigates the effect of short-term dry periods for most water users. Defining when a drought begins is a function of drought impacts to water users. Hydrologic conditions constituting a drought for water users in one location may not constitute a drought for water users elsewhere, or for water users having a different water supply. Individual water suppliers may use criteria such as rainfall/runoff, amount of water in storage, or expected supply from a water wholesaler to define their water supply conditions.

Many governmental utilities, the National Oceanic and Atmospheric Administration (NOAA), and the California Department of Water Resources, as well as academic institutions such as the University of Nebraska-Lincoln's National Drought Mitigation Center and the National Drought Mitigation Center, generally agree that there is no clear definition of drought. Drought is highly variable depending on location.

Drought Threat

The region's Mediterranean climate makes it especially susceptible to variations in rainfall. Severe water shortages could have a bearing on the economic well-being of the community. Comparison of climate (rainfall) records from Los Angeles with water well records beginning in 1930 from the San Gabriel Valley indicates the existence of wet and dry cycles on a 10-year scale as well as for much longer periods. The climate record for the Los Angeles region beginning in 1890 suggests drying conditions over the last century. With respect to the present day, climate data also suggests that the last significant wet period was the 1940s. Well level data and other sources seem to indicate the historic high groundwater levels (reflecting recharge from rainfall) occurred in the same decade. Since that time, rainfall (and groundwater level trends) appears to be in decline. This slight declining trend, however, is not believed to be significant. Climatologists compiled rainfall data from 96 stations in the State that spanned a

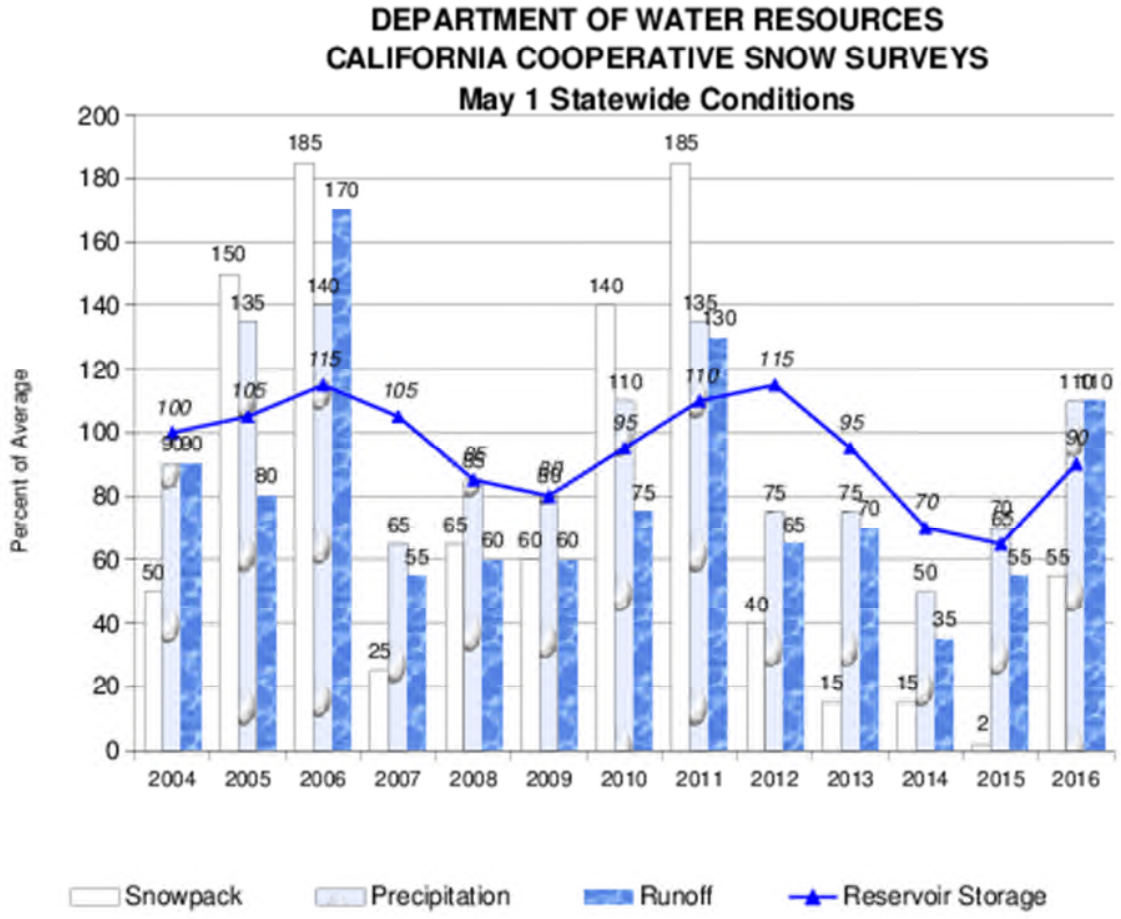
100-year period between 1890 and 1990. An interesting note is that during the first 50 years of the reporting period, there was only one year (1890) that had more than 35 inches of rainfall, whereas the second 50-year period recording of 5 year intervals (1941, 1958, 1978, 1982, and 1983) that exceeded 35 inches of rainfall in a single year. The year of maximum rainfall was 1890 when the average annual rainfall was 43.11 inches. The second wettest year on record occurred in 1983 when the State's average was 42.75 inches.

The driest year of the 100-year reported in the study was 1924 when the State's average rainfall was only 10.50 inches. The region with the most stations reporting the driest year in 1924 was the San Francisco Bay area. The second driest year was 1977 when the average was 11.57 inches. The most recent major drought (1987 to 1990) occurred at the end of a sequence of very wet years (1978 to 1983). The debate continues whether "global warming" is occurring, and the degree to which global climate change will have an effect on local micro-climates. The semi-arid southwest is particularly susceptible to variations in rainfall. A study that documented annual precipitation for California since 1600 from reconstructed tree ring data indicates that there was a prolonged dry spell from about 1755 to 1820 in California. Fluctuations in precipitation could contribute indirectly to a number of hazards including wildfire and the availability of water supplies.

General Situation

Figure: Water Supply Conditions below illustrates several indicators commonly used to evaluate California water conditions. The percent of average values are determined for measurement sites and reservoirs in each of the State's ten major hydrologic regions. Snow pack is an important indicator of runoff from Sierra Nevada watersheds, the source of much of California's developed water supply.

Figure: Water Supply Conditions – 2016
(Source: California Department of Water Resources)



Drought is a gradual phenomenon. Although droughts are sometimes characterized as emergencies, they differ from typical emergency events. Most natural disasters, such as floods or forest fires, occur relatively rapidly and afford little time for preparing for disaster response. Droughts occur slowly, over a multiyear period. There is no universal definition of when a drought begins or ends.

Types of Drought

There are four different ways that drought can be defined:
(1) Meteorological - a measure of departure of precipitation from normal. Due to climatic differences what is considered a drought in one location may not be a drought in another location.
(2) Agricultural - refers to a situation when the amount of moisture in the soil no longer meets the needs of a particular crop.
(3) Hydrological - occurs when surface and subsurface water supplies are below normal.
(4) Socioeconomic - refers to the situation that occurs when physical water shortage begins to affect people.

Historical California Droughts

A significant drought, reported by many of the ranchers in southern California, occurred in 1860. The great drought of the 1930s, coined the "Dust Bowl," was geographically centered in the Great Plains yet ultimately affected water shortages in California. The drought conditions in the plains resulted in a large influx of people to the west coast. Approximately 350,000 people from Arkansas and Oklahoma immigrated mainly to the Great Valley of California. As more people moved into California, including Los Angeles County increases in intensive agriculture led to overuse of the Santa Ana River watershed and groundwater resulting in regional water shortages. Several bills have been introduced into Congress in an effort to mitigate the effects of drought. In 1998, President Clinton signed into law the National Drought Policy Act, which called for the development of a national drought policy or framework that integrates actions and responsibilities among all levels of government. In addition, it established the National Drought Policy Commission to provide advice and recommendations on the creation of an integrated federal policy. The most recent bill introduced into Congress was the National Drought Preparedness Act of 2003, which established a comprehensive national drought policy and statutorily authorized a lead federal utility for drought assistance. Currently there exists only an ad-hoc response approach to drought unlike other disasters (e.g., hurricanes, floods, and tornadoes) which are under the purview of FEMA.

Droughts exceeding three years are relatively rare in Northern California, the source of much of the State's developed water supply. The 1929-34 droughts established the criteria commonly used in designing storage capacity and yield of large Northern California reservoirs. The driest single year of California's measured hydrologic record was 1977. According to USGS, California's most recent multi-year droughts occurred between 1987-92, 2006-2010 and 2012-2016.

The Long-term Climatic Viewpoint

The historical record of California hydrology is brief in comparison to geologically modern climatic conditions. The following sampling of changes in climatic conditions over time helps put California's twentieth century droughts into perspective. Most of the dates shown below are necessarily approximations.

Not only must the climatic conditions be inferred from indirect evidence, but the onset or extent of changed conditions may vary with geographic location. Readers interested in the subject of paleo-climatology are encouraged to seek out the extensive body of popular and scientific literature on this subject.

Past California Droughts

The historical record of California hydrology is brief in comparison to the time period of geologically modern climatic conditions. The following samplings of changes in climatic and hydrologic conditions help put California's twentieth century droughts into perspective, by illustrating the variability of possible conditions. Most of the dates shown below are approximations, since the dates must be inferred from indirect sources.

11,000 years before present

Beginning of Holocene Epoch- Recent time, the time since the end of the last major glacial epoch.

6,000 years before present

Approximate time when trees were growing in areas now submerged by Lake Tahoe. Lake levels were lower then, suggesting a drier climate.

900-1300 A.D. (Approximate)

The Medieval Warm Period, a time of warmer global average temperatures. The Arctic ice pack receded, allowing Norse settlement of Greenland and Iceland. The Anasazi civilization in the Southwest flourished, its irrigation systems supported by monsoonal rains.

1300-1800 A.D. (approximate)

The Little Ice Age, a time of colder average temperatures. Norse colonies in Greenland failed near the start of the time period, as conditions became too cold to support agriculture and livestock grazing. The Anasazi culture began to decline about 1300 and had vanished by 1600, attributed in part to drought conditions that made agriculture infeasible.

Mid - 1500s A.D.

Severe, sustained drought throughout much of the continental U.S., according to dendrochronology. Drought suggested as a contributing factor in the failure of European colonies at Parris Island, South Carolina and Roanoke Island, North Carolina.

1850s A.D.

Sporadic measurements of California precipitation began.

1890s A.D.

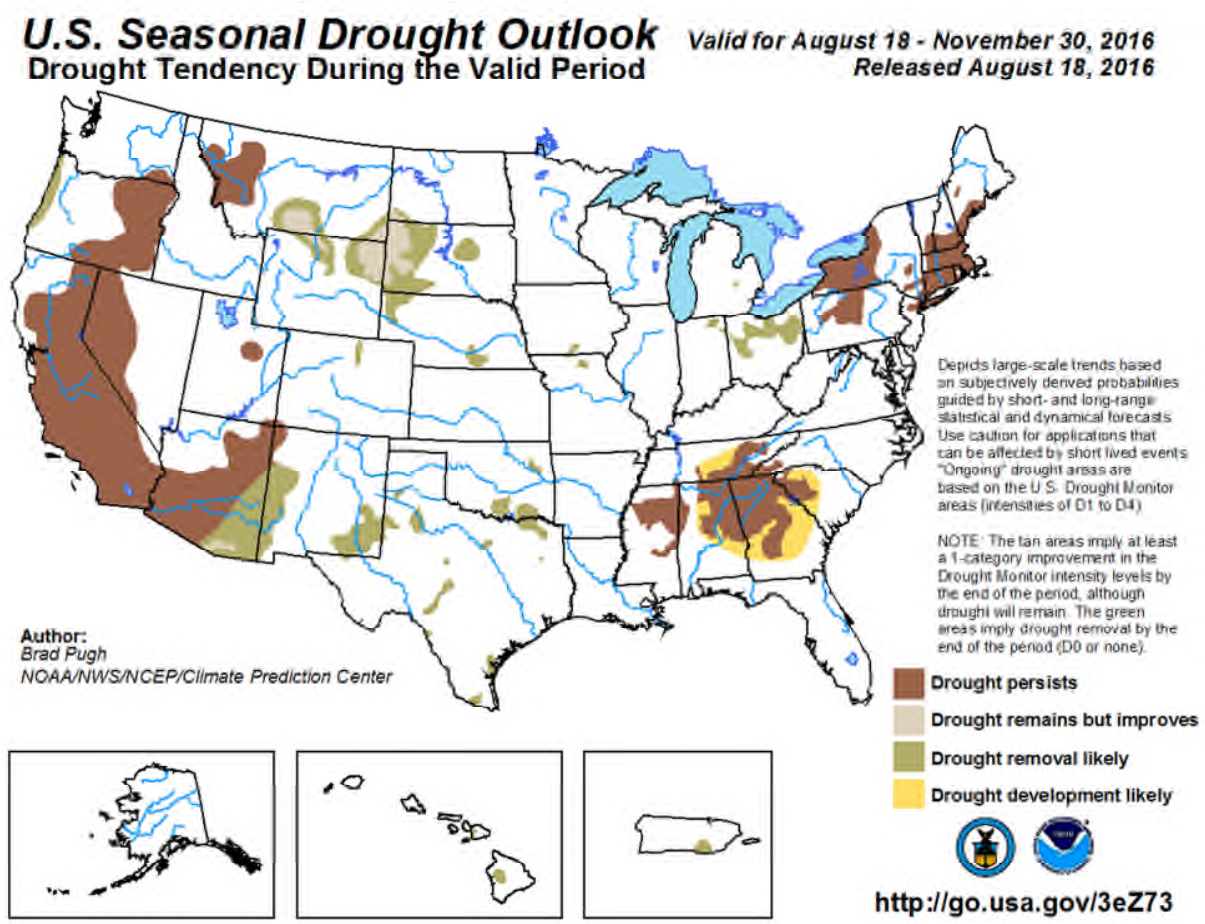
Long-term stream flow measurements began at a few California locations.

Palmer Drought Severity Index

Of the many varied indexes used to measure drought, the "Palmer Drought Severity Index" (PDSI) is the most commonly used drought index in the United States. Developed by meteorologist Wayne Palmer, the PDSI is used to measure dryness based on recent temperature compared to the amount of precipitation. It utilizes a number range, 0 as normal, drought shown in terms of minus numbers, and wetness shown in positive numbers. The PDSI is most effective at analyzing long-range drought forecasts or predications. Thus, the PDSI is very effective at evaluation trends in the severity and frequency of prolonged periods of drought, and conversely wet weather. The National Oceanic and Atmospheric Administration (NOAA) publish weekly Palmer maps, which are also used by other scientists to analyze the long-term trends associated with global warming and how this has affected drought conditions.

The following map is the most current snapshot of drought conditions across the U.S. It is provided by NOAA's Climate Prediction Center.

Map: U.S. Seasonal Drought Outlook
(Source: NOAA Climate Prediction Center)



Attachments

FEMA Letter of Approval

City Council Staff Report

City Council Resolution

Planning Team Sign-In Sheets

City of Montebello
Project Kickoff Meeting
General Plan Safety Element and Hazard Mitigation Plan
September 6, 2016

Name	Department
CAROLYN HARSHMAN	EMERGENCY PLANNING CONSULTANTS
ALLISON RICHARDS	CALIFORNIA CONSULTING
Matthew Fecke	Planning
LEN KIM	CDD.
Kurt Johnson	City of Montebello- Fire Department

City of Montebello
Planning Team Meeting #1
General Plan Safety Element and Hazard Mitigation Plan
September 15, 2016

Name	Department
CAROLYN HARSHMAN	EMERGENCY PLANNING CONSULTANTS
Dan Amador	Montebello F.D.
BRAD KELLER	P. D.
RICK ROJAS	PD
REAS KIM	CDD
Daniel Batson	Public Works

City of Montebello
Planning Team Meeting #2
Hazard Mitigation Plan
October 25, 2016

Name	Department
CAROLYN HARSHMAN	EMERGENCY PLANNING CONSULTANTS
Kurt Johnson	MFD
Daniel France	MFD dfrance@cityofmontebello.com - please add
Allison Richards	CA CONSULTING
LARRY JACKSON	MTB P.D.
David Sawicki	Parks / Rec.
Danilo Batson	Public Works
~~DAN FRANCE~~	~~FIRE~~

City of Montebello
Planning Team Meeting
General Plan Safety Element & Hazard Mitigation Plan Reviews
November 14, 2016

Name	Department
CAROLYN HARSHMAN	EMERGENCY PLANNING CONSULTANTS
BEN KIM	CDD
Matthew Feske	CDD
Kurt Johnson	MFD
David Sawicki	RECREATION

Web Postings and Notices

Appendix 9-1

Water Audit for FY 2019-2020

AWWA Free Water Audit Software v5.0

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This spreadsheet-based water audit tool is designed to help quantify and track water losses associated with water distribution systems and identify areas for improved efficiency and cost recovery. It provides a "top-down" summary water audit format, and is not meant to take the place of a full-scale, comprehensive water audit format.

Auditors are strongly encouraged to refer to the most current edition of AWWA M36 Manual for Water Audits for detailed guidance on the water auditing process and targetting loss reduction levels

The spreadsheet contains several separate worksheets. Sheets can be accessed using the tabs towards the bottom of the screen, or by clicking the buttons below.

Please begin by providing the following information

Name of Contact Person:	Ken Bradbury
Email Address:	ken@mtblw.com
Telephone (incl Ext.):	323-722-8654
Name of City / Utility:	Montebello Land & Water Co.
City/Town/Municipality:	Montebello
State / Province:	California (CA)
Country:	USA
Year:	2019 Financial Year
Start Date:	07/2019 Enter MM/YYYY numeric format
End Date:	06/2020 Enter MM/YYYY numeric format
Audit Preparation Date:	10/21/2020
Volume Reporting Units:	Acre-feet
PWSID / Other ID:	CA1910091

The following guidance will help you complete the Audit

All audit data are entered on the ***Reporting Worksheet***

- Value can be entered by user
- Value calculated based on input data
- These cells contain recommended default values

Use of Option (Radio) Buttons: Pcnt: 0.25% Value:

Select the default percentage by choosing the option button on the left

To enter a value, choose this button and enter a value in the cell to the right

The following worksheets are available by clicking the buttons below or selecting the tabs along the bottom of the page

Instructions
The current sheet. Enter contact information and basic audit details (year, units etc)

Reporting Worksheet
Enter the required data on this worksheet to calculate the water balance and data grading

Comments
Enter comments to explain how values were calculated or to document data sources

Performance Indicators
Review the performance indicators to evaluate the results of the audit

Water Balance
The values entered in the Reporting Worksheet are used to populate the Water Balance

Dashboard
A graphical summary of the water balance and Non-Revenue Water components

Grading Matrix
Presents the possible grading options for each input component of the audit

Service Connection Diagram
Diagrams depicting possible customer service connection line configurations

Definitions
Use this sheet to understand the terms used in the audit process

Loss Control Planning
Use this sheet to interpret the results of the audit validity score and performance indicators

Example Audits
Reporting Worksheet and Performance Indicators examples are shown for two validated audits

Acknowledgements
Acknowledgements for the AWWA Free Water Audit Software v5.0

If you have questions or comments regarding the software please contact us via email at: wlc@awwa.org

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

American Water Works Association.
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? Click to access definition
+ Click to add a comment

Water Audit Report for: Montebello Land & Water Co. (CA1910091)
Reporting Year: 2019 7/2019 - 6/2020

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ---------->

					Pcnt:	Value:	
Volume from own sources:	7	2,856.570	acre-ft/yr	3		-71.587	acre-ft/yr
Water imported:	n/a	0.000	acre-ft/yr				acre-ft/yr
Water exported:	n/a	0.000	acre-ft/yr				acre-ft/yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 2,928.157 acre-ft/yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	5	2,608.262	acre-ft/yr			
Billed unmetered:	n/a	0.000	acre-ft/yr			
Unbilled metered:	7	2.698	acre-ft/yr			
Unbilled unmetered:	5	21.961	acre-ft/yr		21.961	acre-ft/yr

Use buttons to select percentage of water supplied **OR** value

AUTHORIZED CONSUMPTION: ? 2,632.921 acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption)

295.236 acre-ft/yr

Apparent Losses

			Pcnt:	Value:	
Unauthorized consumption:	7.320	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	3	137.419	acre-ft/yr	5.00%	acre-ft/yr
Systematic data handling errors:	7	6.521	acre-ft/yr	6.521	acre-ft/yr

Apparent Losses: ? 151.260 acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: ? 143.975 acre-ft/yr

WATER LOSSES: 295.236 acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: ? 319.895 acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	7	46.3	miles
Number of active AND inactive service connections:	8	4,077	
Service connection density:		88	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure: 5 67.8 psi

COST DATA

Total annual cost of operating water system:	10	$5,420,528	$/Year	
Customer retail unit cost (applied to Apparent Losses):	8	$3.05	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	7	$883.22	$/acre-ft	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 67 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Customer metering inaccuracies
3: Billed metered

AWWA Free Water Audit Software:
System Attributes and Performance Indicators

WAS v5.0
American Water Works Association.
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Water Audit Report for: Montebello Land & Water Co. (CA1910091)
Reporting Year: 2019 | 7/2019 - 6/2020

*** YOUR WATER AUDIT DATA VALIDITY SCORE IS: 67 out of 100 ***

System Attributes:

	Apparent Losses:	151.260	acre-ft/yr
+	Real Losses:	143.975	acre-ft/yr
=	Water Losses:	295.236	acre-ft/yr
?	Unavoidable Annual Real Losses (UARL):	65.47	acre-ft/yr
	Annual cost of Apparent Losses:	$200,961	
	Annual cost of Real Losses:	$127,162	Valued at Variable Production Cost

Return to Reporting Worksheet to change this assumpiton

Performance Indicators:

Financial:	Non-revenue water as percent by volume of Water Supplied:	10.9%	
	Non-revenue water as percent by cost of operating system:	6.5%	Real Losses valued at Variable Production Cost
Operational Efficiency:	Apparent Losses per service connection per day:	33.12	gallons/connection/day
	Real Losses per service connection per day:	31.53	gallons/connection/day
	Real Losses per length of main per day*:	N/A	
	Real Losses per service connection per day per psi pressure:	0.46	gallons/connection/day/psi
	From Above, Real Losses = Current Annual Real Losses (CARL):	143.98	acre-feet/year
?	Infrastructure Leakage Index (ILI) [CARL/UARL]:	2.20	

* This performance indicator applies for systems with a low service connection density of less than 32 service connections/mile of pipeline

AWWA Free Water Audit Software:
User Comments

WAS v5.0
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Use this worksheet to add comments or notes to explain how an input value was calculated, or to document the sources of the information used.

General Comment:	

Audit Item	Comment
Volume from own sources:	100% of WS comes from VOS Wells. Production is continuously metered at each well. Total per meter per month REGISTERED production is 2856.570 ac-ft. DVG 7 due to no electronic calibration of electronic metering instrumentation.
Vol. from own sources: Master meter error adjustment:	Total production is 2856.570 ac-ft. Meters are tested for accuracy annually. The most recent test results of five (5) production well meters indicate accuracy levels of +/-5%. Two (2) production well meters tested outside of +/-5% accuracy: these two (2) production well meters were repaired and replaced in approximatley July 2020 according to MLWC (Montebello Land & Water Co.). Per Well, Per Month registered volumes were "Adjusted" as per the applicable meter test reports to produce a TOTAL ADJUSTED Volume of 2,928.566 AF. This results in an UNDER-Registered volume of 71.996 AF. This was combined with the change in storage (Net Gain) of +0.41 AF in the only system reservoir to produce a total MMEA volume of -71.587 AF. Flows recorded by SCADA but not totalized volumes, limiting DVG to 3. Recommend modifying SCADA to capture VOS flow meter totalizers as future improvements in data certainty.
Water imported:	N/A
Water imported: master meter error adjustment:	N/A
Water exported:	N/A
Water exported: master meter error adjustment:	N/A
Billed metered:	All active customers are metered. Billing is bimonthly and this data was used to compile the annual total. Where bimonthly data overlapped the boundary of two fiscal years, the monthly billed amounts were assumed to follow the proportions seen in the monthly production data. Billed meter data quality level meets all requirements for a "6" except that meters are only replaced when they fail - no proactive meter replacement program is in place.
Billed unmetered:	No billed unmetered accounts exist.
Unbilled metered:	This value includes System and Dead-End flushing totals, Construction meters, and Office/yard use total.
Unbilled unmetered:	This total includes all usage at MLWC facilities (except for office/yard connection) and fire flow events. The default value of 0.25% of production was determined to be below known discharge volumes, so the same estimate from last year (0.75%WS) was utilized to remain consistent - since practices have not deviated much.

Audit Item	Comment
Unauthorized consumption:	No information exists to estimate the volume of water consumed, but violators have been identified every year. The default value of 0.25% of production was assumed.
Customer metering inaccuracies:	Since customer meters are only replaced upon failure and no routine testing is done, it is likely that a significant amount of inaccuracy exists in customer meters. MLWC estimated the accuracy level at 5% (Slow, or under-registering), which has been used in the analysis, but this is essentially an educated guess. Useful meter life was estimated at 20-25 years, and meter age was estimated to be fairly evenly distributed.
Systematic data handling errors:	The default value of 0.25% of production was utilized for volume, however, Billing Software and staff procedures exceed criteria for DVG 5. Practices such as manual checks of billing data and automated flagging of zero consumption each billing cycle prevent common forms of water loss from going unnoticed. Criteria necessary for DVG 7 are met, and therefor assigned.
Length of mains:	Determined from up-to-date hydraulic model.
Number of active AND inactive service connections:	Meter count reviewed and revised from MLWC on 11/21/2020. Meter count includes 3,980 active service and 97 inactive connections (4,077 total).
Average length of customer service line:	
Average operating pressure:	Operational controls for both the boster pump station and the well pumps target an average system pressure of 65 psi. but actual is closer to 67.8 psi. The average operating pressure was determined from the hydraulic model, which will be recalibrated in the upcoming Audit period, now that a GIS system is coming online and will be incorporated into system hydraulics. Per MLWC, the operation of the system is similar to the FY 2018-2019.
Total annual cost of operating water system:	The amount came from the Financial Statement for FY 2019-2020. Expenses included in this statement are repairs and maintenance, production salaries and wages, power and gas, vehicle and equipment, water replenishment cost, water quality tests, plant supplies and tools, outside services, depriciation, property taxes, and insurance.
Customer retail unit cost (applied to Apparent Losses):	Calculated as the weighted average of billing based on water usage divided into sales revenue (Pg 25 of annual financial report). Note these calculations do not include stock nor unit charges and do meet the criteria for DVG 8.
Variable production cost (applied to Real Losses):	Expanded Primary Costs used last year - to now include all relevant secondary costs as accounted for in financial audit. Water, Power, Treatment, Liability, Depreciation, Transmission and Distribution Costs, and source of supply. VPC calculated by $2,586,213 divided by adjusted WS of 2,928.157 AF = $883.22 / AF

AWWA Free Water Audit Software: Water Balance

WAS v5.0

American Water Works Association.
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Water Audit Report for:	**Montebello Land & Water Co. (CA1910091)**	
Reporting Year:	**2019**	**7/2019 - 6/2020**
Data Validity Score:	**67**	

Own Sources (Adjusted for known errors)
2,928.157

Water Imported
0.000

Water Exported
0.000

Water Supplied
2,928.157

Authorized Consumption
2,632.921

Water Losses
295.236

Billed Water Exported

Billed Authorized Consumption
2,608.262

Billed Metered Consumption (water exported is removed)
2,608.262

Billed Unmetered Consumption
0.000

Revenue Water
2,608.262

Unbilled Authorized Consumption
24.659

Unbilled Metered Consumption
2.698

Unbilled Unmetered Consumption
21.961

Non-Revenue Water (NRW)
319.895

Apparent Losses
151.260

Unauthorized Consumption
7.320

Customer Metering Inaccuracies
137.419

Systematic Data Handling Errors
6.521

Real Losses
143.975

Leakage on Transmission and/or Distribution Mains
Not broken down

Leakage and Overflows at Utility's Storage Tanks
Not broken down

Leakage on Service Connections
Not broken down

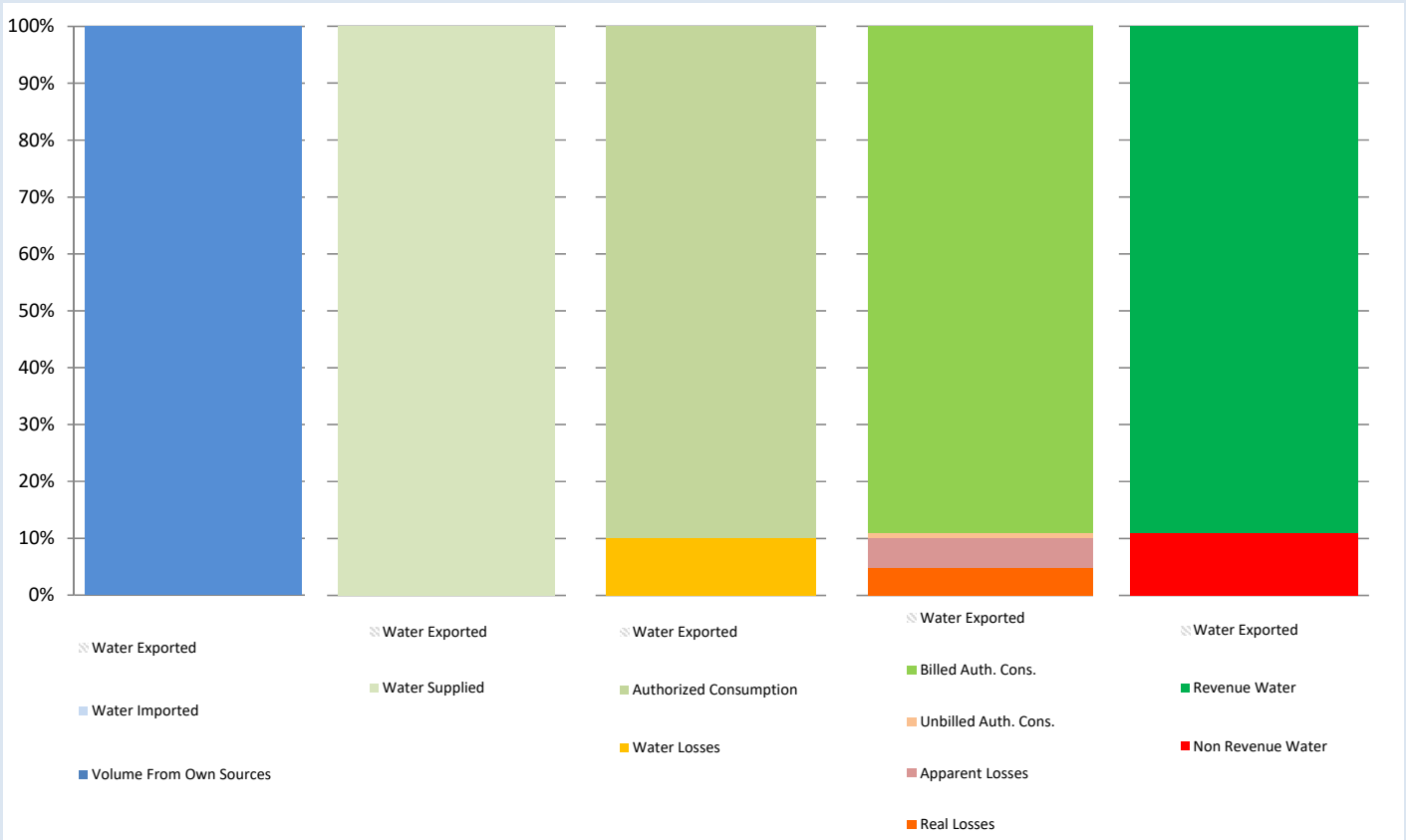
AWWA Free Water Audit Software:
Dashboard

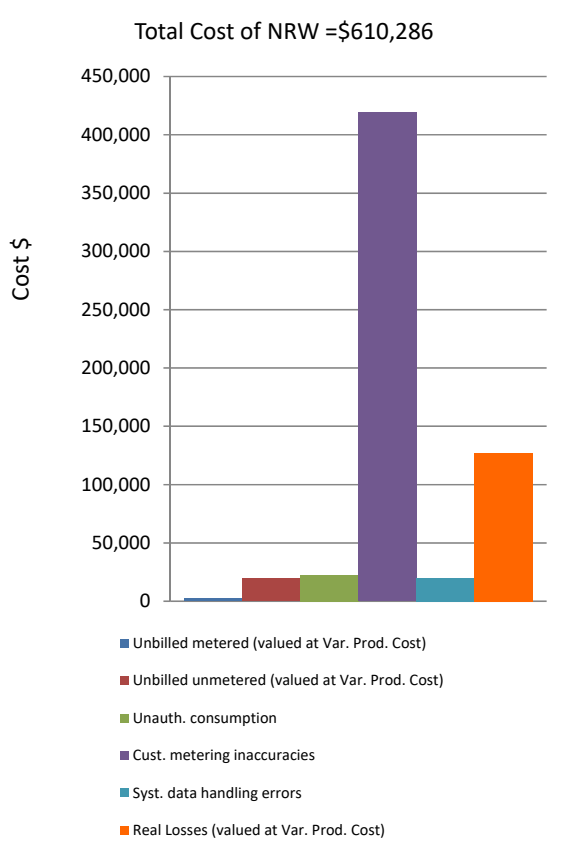
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The graphic below is a visual representation of the Water Balance with bar heights propotional to the volume of the audit components

Water Audit Report for:	**Montebello Land & Water Co. (CA1910091)**	
Reporting Year:	**2019**	**7/2019 - 6/2020**
Data Validity Score:	**67**	

○ Show me the VOLUME of Non-Revenue Water
◉ Show me the COST of Non-Revenue Water





AWWA Free Water Audit Software: Grading Matrix

WAS 5.0

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The grading assigned to each audit component and the corresponding recommended improvements and actions are highlighted in yellow. Audit accuracy is likely to be improved by prioritizing those items shown in red

Grading >>>	n/a	1	2	3	4	5	6	7	8	9	10
WATER SUPPLIED											
Volume from own sources:	Select this grading only if the water utility purchases/imports all of its water resources (i.e. has no sources of its own)	Less than 25% of water production sources are metered, remaining sources are estimated. No regular meter accuracy testing or electronic calibration conducted.	25% - 50% of treated water production sources are metered; other sources estimated. No regular meter accuracy testing or electronic calibration conducted.	Conditions between 2 and 4	50% - 75% of treated water production sources are metered, other sources estimated. Occasional meter accuracy testing or electronic calibration conducted.	Conditions between 4 and 6	At least 75% of treated water production sources are metered, or at least 90% of the source flow is derived from metered sources. Meter accuracy testing and/or electronic calibration of related instrumentation is conducted annually. Less than 25% of tested meters are found outside of +/- 6% accuracy.	Conditions between 6 and 8	100% of treated water production sources are metered, meter accuracy testing and electronic calibration of related instrumentation is conducted annually, less than 10% of meters are found outside of +/- 6% accuracy	Conditions between 8 and 10	100% of treated water production sources are metered, meter accuracy testing and electronic calibration of related instrumentation is conducted semi-annually, with less than 10% found outside of +/- 3% accuracy. Procedures are reviewed by a third party knowledgeable in the M36 methodology.
Improvements to attain higher data grading for "Volume from own Sources" component:		to qualify for 2: Organize and launch efforts to collect data for determining volume from own sources	to qualify for 4: Locate all water production sources on maps and in the field, launch meter accuracy testing for existing meters, begin to install meters on unmetered water production sources and replace any obsolete/defective meters.		to qualify for 6: Formalize annual meter accuracy testing for all source meters; specify the frequency of testing. Complete installation of meters on unmetered water production sources and complete replacement of all obsolete/defective meters.		to qualify for 8: Conduct annual meter accuracy testing and calibration of related instrumentation on all meter installations on a regular basis. Complete project to install new, or replace defective existing, meters so that entire production meter population is metered. Repair or replace meters outside of +/- 6% accuracy.		to qualify for 10: Maintain annual meter accuracy testing and calibration of related instrumentation for all meter installations. Repair or replace meters outside of +/- 3% accuracy. Investigate new meter technology; pilot one or more replacements with innovative meters in attempt to further improve meter accuracy.		to maintain 10: Standardize meter accuracy test frequency to semi-annual, or more frequent, for all meters. Repair or replace meters outside of +/- 3% accuracy. Continually investigate/pilot improving metering technology.
Volume from own sources master meter and supply error adjustment:	Select n/a only if the water utility fails to have meters on its sources of supply	Inventory information on meters and paper records of measured volumes exist but are incomplete and/or in a very crude condition; data error cannot be determined	No automatic datalogging of production volumes; daily readings are scribed on paper records without any accountability controls. Flows are not balanced across the water distribution system: tank/storage elevation changes are not employed in calculating the "Volume from own sources" component and archived flow data is adjusted only when grossly evident data error occurs.	Conditions between 2 and 4	Production meter data is logged automatically in electronic format and reviewed at least on a monthly basis with necessary corrections implemented. "Volume from own sources" tabulations include estimate of daily changes in tanks/storage facilities. Meter data is adjusted when gross data errors occur, or occasional meter testing deems this necessary.	Conditions between 4 and 6	Hourly production meter data logged automatically & reviewed on at least a weekly basis. Data is adjusted to correct gross error when meter/instrumentation equipment malfunction is detected; and/or error is confirmed by meter accuracy testing. Tank/storage facility elevation changes are automatically used in calculating a balanced "Volume from own sources" component, and data gaps in the archived data are corrected on at least a weekly basis.	Conditions between 6 and 8	Continuous production meter data is logged automatically & reviewed each business day. Data is adjusted to correct gross error from detected meter/instrumentation equipment malfunction and/or results of meter accuracy testing. Tank/storage facility elevation changes are automatically used in "Volume from own sources" tabulations and data gaps in the archived data are corrected on a daily basis.	Conditions between 8 and 10	Computerized system (SCADA or similar) automatically balances flows from all sources and storages; results are reviewed each business day. Tight accountability controls ensure that all data gaps that occur in the archived flow data are quickly detected and corrected. Regular calibrations between SCADA and sources meters ensures minimal data transfer error.
Improvements to attain higher data grading for "Master meter and supply error adjustment" component:		to qualify for 2: Develop a plan to restructure recordkeeping system to capture all flow data; set a procedure to review flow data on a daily basis to detect input errors. Obtain more reliable information about existing meters by conducting field inspections of meters and related instrumentation, and obtaining manufacturer literature.	to qualify for 4: Install automatic datalogging equipment on production meters. Complete installation of level instrumentation at all tanks/storage facilities and include tank level data in automatic calculation routine in a computerized system. Construct a computerized listing or spreadsheet to archive input volumes, tank/storage volume changes and import/export flows in order to determine the composite "Water Supplied" volume for the distribution system. Set a procedure to review this data on a monthly basis to detect gross anomalies and data gaps.		to qualify for 6: Refine computerized data collection and archive to include hourly production meter data that is reviewed at least on a weekly basis to detect specific data anomalies and gaps. Use daily net storage change to balance flows in calculating "Water Supplied" volume. Necessary corrections to data errors are implemented on a weekly basis.		to qualify for 8: Ensure that all flow data is collected and archived on at least an hourly basis. All data is reviewed and detected errors corrected each business day. Tank/storage levels variations are employed in calculating balanced "Water Supplied" component. Adjust production meter data for gross error and inaccuracy confirmed by testing.		to qualify for 10: Link all production and tank/storage facility elevation change data to a Supervisory Control & Data Acquisition (SCADA) System, or similar computerized monitoring/control system, and establish automatic flow balancing algorithm and regularly calibrate between SCADA and source meters. Data is reviewed and corrected each business day.		to maintain 10: Monitor meter innovations for development of more accurate and less expensive flowmeters. Continue to replace or repair meters as they perform outside of desired accuracy limits. Stay abreast of new and more accurate water level instruments to better record tank/storage levels and archive the variations in storage volume. Keep current with SCADA and data management systems to ensure that archived data is well-managed and error free.
Water Imported:	Select n/a if the water utility's supply is exclusively from its own water resources (no bulk purchased/ imported water)	Less than 25% of imported water sources are metered, remaining sources are estimated. No regular meter accuracy testing.	25% - 50% of imported water sources are metered; other sources estimated. No regular meter accuracy testing.	Conditions between 2 and 4	50% - 75% of imported water sources are metered, other sources estimated. Occasional meter accuracy testing conducted.	Conditions between 4 and 6	At least 75% of imported water sources are metered, meter accuracy testing and/or electronic calibration of related instrumentation is conducted annually for all meter installations. Less than 25% of tested meters are found outside of +/- 6% accuracy.	Conditions between 6 and 8	100% of imported water sources are metered, meter accuracy testing and electronic calibration of related instrumentation is conducted annually, less than 10% of meters are found outside of +/- 6% accuracy	Conditions between 8 and 10	100% of imported water sources are metered, meter accuracy testing and electronic calibration of related instrumentation is conducted semi-annually for all meter installations, with less than 10% of accuracy tests found outside of +/- 3% accuracy.
Improvements to attain higher data grading for "Water Imported Volume" component: *(Note: usually the water supplier selling the water - "the Exporter" - to the utility being audited is responsible to maintain the metering installation measuring the imported volume. The utility should coordinate carefully with the Exporter to ensure that adequate meter upkeep takes place and an accurate measure of the Water Imported volume is quantified.)*		to qualify for 2: Review bulk water purchase agreements with partner suppliers; confirm requirements for use and maintenance of accurate metering. Identify needs for new or replacement meters with goal to meter all imported water sources.	To qualify for 4: Locate all imported water sources on maps and in the field, launch meter accuracy testing for existing meters, begin to install meters on unmetered imported water interconnections and replace obsolete/defective meters.		to qualify for 6: Formalize annual meter accuracy testing for all imported water meters, planning for both regular meter accuracy testing and calibration of the related instrumentation. Continue installation of meters on unmetered imported water interconnections and replacement of obsolete/defective meters.		to qualify for 8: Complete project to install new, or replace defective, meters on all imported water interconnections. Maintain annual meter accuracy testing for all imported water meters and conduct calibration of related instrumentation at least annually. Repair or replace meters outside of +/- 6% accuracy.		to qualify for 10: Conduct meter accuracy testing for all meters on a semi-annual basis, along with calibration of all related instrumentation. Repair or replace meters outside of +/- 3% accuracy. Investigate new meter technology; pilot one or more replacements with innovative meters in attempt to improve meter accuracy.		to maintain 10: Standardize meter accuracy test frequency to semi-annual, or more frequent, for all meters. Continue to conduct calibration of related instrumentation on a semi-annual basis. Repair or replace meters outside of +/- 3% accuracy. Continually investigate/pilot improving metering technology.

Grading >>>	n/a	1	2	3	4	5	6	7	8	9	10
Water imported master meter and supply error adjustment:	Select n/a if the Imported water supply is unmetered, with Imported water quantities estimated on the billing invoices sent by the Exporter to the purchasing Utility.	Inventory information on imported meters and paper records of measured volumes exist but are incomplete and/or in a very crude condition; data error cannot be determined Written agreement(s) with water Exporter(s) are missing or written in vague language concerning meter management and testing.	No automatic datalogging of imported supply volumes; daily readings are scribed on paper records without any accountability controls to confirm data accuracy and the absence of errors and data gaps in recorded volumes. Written agreement requires meter accuracy testing but is vague on the details of how and who conducts the testing.	Conditions between 2 and 4	Imported supply metered flow data is logged automatically in electronic format and reviewed at least on a monthly basis by the Exporter with necessary corrections implemented. Meter data is adjusted by the Exporter when gross data errors are detected. A coherent data trail exists for this process to protect both the selling and the purchasing Utility. Written agreement exists and clearly states requirements and roles for meter accuracy testing and data management.	Conditions between 4 and 6	Hourly Imported supply metered data is logged automatically & reviewed on at least a weekly basis by the Exporter. Data is adjusted to correct gross error when meter/instrumentation equipment malfunction is detected; and to correct for error confirmed by meter accuracy testing. Any data gaps in the archived data are detected and corrected during the weekly review. A coherent data trail exists for this process to protect both the selling and the purchasing Utility.	Conditions between 6 and 8	Continuous Imported supply metered flow data is logged automatically & reviewed each business day by the Importer. Data is adjusted to correct gross error from detected meter/instrumentation equipment malfunction and/or results of meter accuracy testing. Any data errors/gaps are detected and corrected on a daily basis. A data trail exists for the process to protect both the selling and the purchasing Utility.	Conditions between 8 and 10	Computerized system (SCADA or similar) automatically records data which is reviewed each business day by the Exporter. Tight accountability controls ensure that all error/data gaps that occur in the archived flow data are quickly detected and corrected. A reliable data trail exists and contract provisions for meter testing and data management are reviewed by the selling and purchasing Utility at least once every five years.
Improvements to attain higher data grading for "Water imported master meter and supply error adjustment" component:		to qualify for 2: Develop a plan to restructure recordkeeping system to capture all flow data; set a procedure to review flow data on a daily basis to detect input errors. Obtain more reliable information about existing meters by conducting field inspections of meters and related instrumentation, and obtaining manufacturer literature. Review the written agreement between the selling and purchasing Utility.	to qualify for 4: Install automatic datalogging equipment on Imported supply meters. Set a procedure to review this data on a monthly basis to detect gross anomalies and data gaps. Launch discussions with the Exporters to jointly review terms of the written agreements regarding meter accuracy testing and data management; revise the terms as necessary.		to qualify for 6: Refine computerized data collection and archive to include hourly Imported supply metered flow data that is reviewed at least on a weekly basis to detect specific data anomalies and gaps. Make necessary corrections to errors/data errors on a weekly basis.		to qualify for 8: Ensure that all Imported supply metered flow data is collected and archived on at least an hourly basis. All data is reviewed and errors/data gaps are corrected each business day.		to qualify for 10: Conduct accountability checks to confirm that all Imported supply metered data is reviewed and corrected each business day by the Exporter. Results of all meter accuracy tests and data corrections should be available for sharing between the Exporter and the purchasing Utility. Establish a schedule for a regular review and updating of the contractual language in the written agreement between the selling and the purchasing Utility; at least every five years.		to maintain 10: Monitor meter innovations for development of more accurate and less expensive flowmeters; work with the Exporter to help identify meter replacement needs. Keep communication lines with Exporters open and maintain productive relations. Keep the written agreement current with clear and explicit language that meets the ongoing needs of all parties.
Water Exported:	Select n/a if the water utility sells no bulk water to neighboring water utilities (no exported water sales)	Less than 25% of exported water sources are metered, remaining sources are estimated. No regular meter accuracy testing.	25% - 50% of exported water sources are metered; other sources estimated. No regular meter accuracy testing.	Conditions between 2 and 4	50% - 75% of exported water sources are metered, other sources estimated. Occasional meter accuracy testing conducted.	Conditions between 4 and 6	At least 75% of exported water sources are metered, meter accuracy testing and/or electronic calibration conducted annually. Less than 25% of tested meters are found outside of +/- 6% accuracy.	Conditions between 6 and 8	100% of exported water sources are metered, meter accuracy testing and electronic calibration of related instrumentation is conducted annually, less than 10% of meters are found outside of +/- 6% accuracy	Conditions between 8 and 10	100% of exported water sources are metered, meter accuracy testing and electronic calibration of related instrumentation is conducted semi-annually for all meter installations, with less than 10% of accuracy tests found outside of +/- 3% accuracy.
Improvements to attain higher data grading for "Water Exported Volume" component: *(Note: usually, if the water utility being audited sells (Exports) water to a neighboring purchasing Utility, it is the responsibility of the utility exporting the water to maintain the metering installation measuring the Exported volume. The utility exporting the water should ensure that adequate meter upkeep takes place and an accurate measure of the Water Exported volume is quantified.*)		to qualify for 2: Review bulk water sales agreements with purchasing utilities; confirm requirements for use & upkeep of accurate metering. Identify needs to install new, or replace defective meters as needed.	To qualify for 4: Locate all exported water sources on maps and in field, launch meter accuracy testing for existing meters, begin to install meters on unmetered exported water interconnections and replace obsolete/defective meters		to qualify for 6: Formalize annual meter accuracy testing for all exported water meters. Continue installation of meters on unmetered exported water interconnections and replacement of obsolete/defective meters.		to qualify for 8: Complete project to install new, or replace defective, meters on all exported water interconnections. Maintain annual meter accuracy testing for all exported water meters. Repair or replace meters outside of +/- 6% accuracy.		to qualify for 10: Maintain annual meter accuracy testing for all meters. Repair or replace meters outside of +/- 3% accuracy. Investigate new meter technology; pilot one or more replacements with innovative meters in attempt to improve meter accuracy.		to maintain 10: Standardize meter accuracy test frequency to semi-annual, or more frequent, for all meters. Repair or replace meters outside of +/- 3% accuracy. Continually investigate/pilot improving metering technology.
Water exported master meter and supply error adjustment:	Select n/a only if the water utility fails to have meters on its exported supply interconnections.	Inventory information on exported meters and paper records of measured volumes exist but are incomplete and/or in a very crude condition; data error cannot be determined Written agreement(s) with the utility purchasing the water are missing or written in vague language concerning meter management and testing.	No automatic datalogging of exported supply volumes; daily readings are scribed on paper records without any accountability controls to confirm data accuracy and the absence of errors and data gaps in recorded volumes. Written agreement requires meter accuracy testing but is vague on the details of how and who conducts the testing.	Conditions between 2 and 4	Exported metered flow data is logged automatically in electronic format and reviewed at least on a monthly basis, with necessary corrections implemented. Meter data is adjusted by the utility selling (exporting) the water when gross data errors are detected. A coherent data trail exists for this process to protect both the utility exporting the water and the purchasing Utility. Written agreement exists and clearly states requirements and roles for meter accuracy testing and data management.	Conditions between 4 and 6	Hourly exported supply metered data is logged automatically & reviewed on at least a weekly basis by the utility selling the water. Data is adjusted to correct gross error when meter/instrumentation equipment malfunction is detected; and to correct for error found by meter accuracy testing. Any data gaps in the archived data are detected and corrected during the weekly review. A coherent data trail exists for this process to protect both the selling (exporting) utility and the purchasing Utility.	Conditions between 6 and 8	Continuous exported supply metered flow data is logged automatically & reviewed each business day by the utility selling (exporting) the water. Data is adjusted to correct gross error from detected meter/instrumentation equipment malfunction and any error confirmed by meter accuracy testing. Any data errors/gaps are detected and corrected on a daily basis. A data trail exists for the process to protect both the selling (exporting) Utility and the purchasing Utility.	Conditions between 8 and 10	Computerized system (SCADA or similar) automatically records data which is reviewed each business day by the utility selling (exporting) the water. Tight accountability controls ensure that all error/data gaps that occur in the archived flow data are quickly detected and corrected. A reliable data trail exists and contract provisions for meter testing and data management are reviewed by the selling Utility and purchasing Utility at least once every five years.

Grading >>>	n/a	1	2	3	4	5	6	7	8	9	10
Improvements to attain higher data grading for "Water exported master meter and supply error adjustment" component:		to qualify for 2: Develop a plan to restructure recordkeeping system to capture all flow data; set a procedure to review flow data on a daily basis to detect input errors. Obtain more reliable information about existing meters by conducting field inspections of meters and related instrumentation, and obtaining manufacturer literature. Review the written agreement between the utility selling (exporting) the water and the purchasing Utility.	to qualify for 4: Install automatic datalogging equipment on exported supply meters. Set a procedure to review this data on a monthly basis to detect gross anomalies and data gaps. Launch discussions with the purchasing utilities to jointly review terms of the written agreements regarding meter accuracy testing and data management; revise the terms as necessary.		to qualify for 6: Refine computerized data collection and archive to include hourly exported supply metered flow data that is reviewed at least on a weekly basis to detect specific data anomalies and gaps. Make necessary corrections to errors/data errors on a weekly basis.		to qualify for 8: Ensure that all exported metered flow data is collected and archived on at least an hourly basis. All data is reviewed and errors/data gaps are corrected each business day.		to qualify for 10: Conduct accountability checks to confirm that all exported metered flow data is reviewed and corrected each business day by the utility selling the water. Results of all meter accuracy tests and data corrections should be available for sharing between the utility and the purchasing Utility. Establish a schedule for a regular review and updating of the contractual language in the written agreements with the purchasing utilities; at least every five years.		to maintain 10: Monitor meter innovations for development of more accurate and less expensive flowmeters; work with the purchasing utilities to help identify meter replacement needs. Keep communication lines with the purchasing utilities open and maintain productive relations. Keep the written agreement current with clear and explicit language that meets the ongoing needs of all parties.
AUTHORIZED CONSUMPTION											
Billed metered:	n/a (not applicable). Select n/a only if the entire customer population is not metered and is billed for water service on a flat or fixed rate basis. In such a case the volume entered must be zero.	Less than 50% of customers with volume-based billings from meter readings; flat or fixed rate billing exists for the majority of the customer population	At least 50% of customers with volume-based billing from meter reads; flat rate billing for others. Manual meter reading is conducted, with less than 50% meter read success rate, remaining accounts' consumption is estimated. Limited meter records, no regular meter testing or replacement. Billing data maintained on paper records, with no auditing.	Conditions between 2 and 4	At least 75% of customers with volume-based, billing from meter reads; flat or fixed rate billing for remaining accounts. Manual meter reading is conducted with at least 50% meter read success rate; consumption for accounts with failed reads is estimated. Purchase records verify age of customer meters; only very limited meter accuracy testing is conducted. Customer meters are replaced only upon complete failure. Computerized billing records exist, but only sporadic internal auditing conducted.	Conditions between 4 and 6	At least 90% of customers with volume-based billing from meter reads; consumption for remaining accounts is estimated. Manual customer meter reading gives at least 80% customer meter reading success rate; consumption for accounts with failed reads is estimated. Good customer meter records exist, but only limited meter accuracy testing is conducted. Regular replacement is conducted for the oldest meters. Computerized billing records exist with annual auditing of summary statistics conducted by utility personnel.	Conditions between 6 and 8	At least 97% of customers exist with volume-based billing from meter reads. At least 90% customer meter reading success rate; or at least 80% read success rate with planning and budgeting for trials of Automatic Meter Reading (AMR) or Advanced Metering Infrastructure (AMI) in one or more pilot areas. Good customer meter records. Regular meter accuracy testing guides replacement of statistically significant number of meters each year. Routine auditing of computerized billing records for global and detailed statistics occurs annually by utility personnel, and is verified by third party at least once every five years.	Conditions between 8 and 10	At least 99% of customers exist with volume-based billing from meter reads. At least 95% customer meter reading success rate; or minimum 80% meter reading success rate, with Automatic Meter Reading (AMR) or Advanced Metering Infrastructure (AMI) trials underway. Statistically significant customer meter testing and replacement program in place on a continuous basis. Computerized billing with routine, detailed auditing, including field investigation of representative sample of accounts undertaken annually by utility personnel. Audit is conducted by third party auditors at least once every three years.
Improvements to attain higher data grading for "Billed Metered Consumption" component:	If n/a is selected because the customer meter population is unmetered, consider establishing a new policy to meter the customer population and employ water rates based upon metered volumes.	to qualify for 2: Conduct investigations or trials of customer meters to select appropriate meter models. Budget funding for meter installations. Investigate volume based water rate structures.	to qualify for 4: Purchase and install meters on unmetered accounts. Implement policies to improve meter reading success. Catalog meter information during meter read visits to identify age/model of existing meters. Test a minimal number of meters for accuracy. Install computerized billing system.		to qualify for 6: Purchase and install meters on unmetered accounts. Eliminate flat fee billing and establish appropriate water rate structure based upon measured consumption. Continue to achieve verifiable success in removing manual meter reading barriers. Expand meter accuracy testing. Launch regular meter replacement program. Launch a program of annual auditing of global billing statistics by utility personnel.		to qualify for 8: Purchase and install meters on unmetered accounts. If customer meter reading success rate is less than 97%, assess cost-effectiveness of Automatic Meter Reading (AMR) or Advanced Metering Infrastructure (AMI) system for portion or entire system; or otherwise achieve ongoing improvements in manual meter reading success rate to 97% or higher. Refine meter accuracy testing program. Set meter replacement goals based upon accuracy test results. Implement annual auditing of detailed billing records by utility personnel and implement third party auditing at least once every five years.		to qualify for 10: Purchase and install meters on unmetered accounts. Launch Automatic Meter Reading (AMR) or Advanced Metering Infrastructure (AMI) system trials if manual meter reading success rate of at least 99% is not achieved within a five-year program. Continue meter accuracy testing program. Conduct planning and budgeting for large scale meter replacement based upon meter life cycle analysis using cumulative flow target. Continue annual detailed billing data auditing by utility personnel and conduct third party auditing at least once every three years.		to maintain 10: Continue annual internal billing data auditing, and third party auditing at least every three years. Continue customer meter accuracy testing to ensure that accurate customer meter readings are obtained and entered as the basis for volume based billing. Stay abreast of improvements in Automatic Meter Reading (AMR) and Advanced Metering Infrastructure (AMI) and information management. Plan and budget for justified upgrades in metering, meter reading and billing data management to maintain very high accuracy in customer metering and billing.
Billed unmetered:	Select n/a if it is the policy of the water utility to meter all customer connections and it has been confirmed by detailed auditing that all customers do indeed have a water meter; i.e. no intentionally unmetered accounts exist	Water utility policy does not require customer metering; flat or fixed fee billing is employed. No data is collected on customer consumption. The only estimates of customer population consumption available are derived from data estimation methods using average fixture count multiplied by number of connections, or similar approach.	Water utility policy does not require customer metering; flat or fixed fee billing is employed. Some metered accounts exist in parts of the system (pilot areas or District Metered Areas) with consumption read periodically or recorded on portable dataloggers over one, three, or seven day periods. Data from these sample meters are used to infer consumption for the total customer population. Site specific estimation methods are used for unusual buildings/water uses.	Conditions between 2 and 4	Water utility policy does require metering and volume based billing in general. However, a liberal amount of exemptions and a lack of clearly written and communicated procedures result in up to 20% of billed accounts believed to be unmetered by exemption; or the water utility is in transition to becoming fully metered, and a large number of customers remain unmetered. A rough estimate of the annual consumption for all unmetered accounts is included in the annual water audit, with no inspection of individual unmetered accounts.	Conditions between 4 and 6	Water utility policy does require metering and volume based billing but established exemptions exist for a portion of accounts such as municipal buildings. As many as 15% of billed accounts are unmetered due to this exemption or meter installation difficulties. Only a group estimate of annual consumption for all unmetered accounts is included in the annual water audit, with no inspection of individual unmetered accounts.	Conditions between 6 and 8	Water utility policy does require metering and volume based billing for all customer accounts. However, less than 5% of billed accounts remain unmetered because meter installation is hindered by unusual circumstances. The goal is to minimize the number of unmetered accounts. Reliable estimates of consumption are obtained for these unmetered accounts via site specific estimation methods.	Conditions between 8 and 10	Water utility policy does require metering and volume based billing for all customer accounts. Less than 2% of billed accounts are unmetered and exist because meter installation is hindered by unusual circumstances. The goal exists to minimize the number of unmetered accounts to the extent that is economical. Reliable estimates of consumption are obtained at these accounts via site specific estimation methods.

Grading >>>	n/a	1	2	3	4	5	6	7	8	9	10
Improvements to attain higher data grading for "Billed Unmetered Consumption" component:		to qualify for 2: Conduct research and evaluate cost/benefit of a new water utility policy to require metering of the customer population; thereby greatly reducing or eliminating unmetered accounts. Conduct pilot metering project by installing water meters in small sample of customer accounts and periodically reading the meters or datalogging the water consumption over one, three, or seven day periods.	to qualify for 4: Implement a new water utility policy requiring customer metering. Launch or expand pilot metering study to include several different meter types, which will provide data for economic assessment of full scale metering options. Assess sites with access difficulties to devise means to obtain water consumption volumes. Begin customer meter installation.		to qualify for 6: Refine policy and procedures to improve customer metering participation for all but solidly exempt accounts. Assign staff resources to review billing records to identify errant unmetered properties. Specify metering needs and funding requirements to install sufficient meters to significant reduce the number of unmetered accounts		to qualify for 8: Push to install customer meters on a full scale basis. Refine metering policy and procedures to ensure that all accounts, including municipal properties, are designated for meters. Plan special efforts to address "hard-to-access" accounts. Implement procedures to obtain a reliable consumption estimate for the remaining few unmetered accounts awaiting meter installation.		to qualify for 10: Continue customer meter installation throughout the service area, with a goal to minimize unmetered accounts. Sustain the effort to investigate accounts with access difficulties, and devise means to install water meters or otherwise measure water consumption.		to maintain 10: Continue to refine estimation methods for unmetered consumption and explore means to establish metering, for as many billed remaining unmetered accounts as is economically feasible.
Unbilled metered:	select n/a if all billing-exempt consumption is unmetered.	Billing practices exempt certain accounts, such as municipal buildings, but written policies do not exist; and a reliable count of unbilled metered accounts is unavailable. Meter upkeep and meter reading on these accounts is rare and not considered a priority. Due to poor recordkeeping and lack of auditing, water consumption for all such accounts is purely guesstimated.	Billing practices exempt certain accounts, such as municipal buildings, but only scattered, dated written directives exist to justify this practice. A reliable count of unbilled metered accounts is unavailable. Sporadic meter replacement and meter reading occurs on an as-needed basis. The total annual water consumption for all unbilled, metered accounts is estimated based upon approximating the number of accounts and assigning consumption from actively billed accounts of same meter size.	Conditions between 2 and 4	Dated written procedures permit billing exemption for specific accounts, such as municipal properties, but are unclear regarding certain other types of accounts. Meter reading is given low priority and is sporadic. Consumption is quantified from meter readings where available. The total number of unbilled, unmetered accounts must be estimated along with consumption volumes.	Conditions between 4 and 6	Written policies regarding billing exemptions exist but adherence in practice is questionable. Metering and meter reading for municipal buildings is reliable but sporadic for other unbilled metered accounts. Periodic auditing of such accounts is conducted. Water consumption is quantified directly from meter readings where available, but the majority of the consumption is estimated.	Conditions between 6 and 8	Written policy identifies the types of accounts granted a billing exemption. Customer meter management and meter reading are considered secondary priorities, but meter reading is conducted at least annually to obtain consumption volumes for the annual water audit. High level auditing of billing records ensures that a reliable census of such accounts exists.	Conditions between 8 and 10	Clearly written policy identifies the types of accounts given a billing exemption, with emphasis on keeping such accounts to a minimum. Customer meter management and meter reading for these accounts is given proper priority and is reliably conducted. Regular auditing confirms this. Total water consumption for these accounts is taken from reliable readings from accurate meters.
Improvements to attain higher data grading for "Unbilled Metered Consumption" component:		to qualify for 2: Reassess the water utility's policy allowing certain accounts to be granted a billing exemption. Draft an outline of a new written policy for billing exemptions, with clear justification as to why any accounts should be exempt from billing, and with the intention to keep the number of such accounts to a minimum.	to qualify for 4: Review historic written directives and policy documents allowing certain accounts to be billing-exempt. Draft an outline of a written policy for billing exemptions, identify criteria that grants an exemption, with a goal of keeping this number of accounts to a minimum. Consider increasing the priority of reading meters on unbilled accounts at least annually.		to qualify for 6: Draft a new written policy regarding billing exemptions based upon consensus criteria allowing this occurrence. Assign resources to audit meter records and billing records to obtain census of unbilled metered accounts. Gradually include a greater number of these metered accounts to the routes for regular meter reading.		to qualify for 8: Communicate billing exemption policy throughout the organization and implement procedures that ensure proper account management. Conduct inspections of accounts confirmed in unbilled metered status and verify that accurate meters exist and are scheduled for routine meter readings. Gradually increase the number of unbilled metered accounts that are included in regular meter reading routes.		to qualify for 10: Ensure that meter management (meter accuracy testing, meter replacement) and meter reading activities for unbilled accounts are accorded the same priority as billed accounts. Establish ongoing annual auditing process to ensure that water consumption is reliably collected and provided to the annual water audit process.		to maintain 10: Reassess the utility's philosophy in allowing any water uses to go "unbilled". It is possible to meter and bill all accounts, even if the fee charged for water consumption is discounted or waived. Metering and billing all accounts ensures that water consumption is tracked and water waste from plumbing leaks is detected and minimized.
Unbilled unmetered:		Extent of unbilled, unmetered consumption is unknown due to unclear policies and poor recordkeeping. Total consumption is quantified based upon a purely subjective estimate.	Clear extent of unbilled, unmetered consumption is unknown, but a number of events are randomly documented each year, confirming existence of such consumption, but without sufficient documentation to quantify an accurate estimate of the annual volume consumed.	Conditions between 2 and 4	Extent of unbilled, unmetered consumption is partially known, and procedures exist to document certain events such as miscellaneous fire hydrant uses. Formulae is used to quantify the consumption from such events (time running multiplied by typical flowrate, multiplied by number of events).	Default value of 1.25% of system input volume is employed	Coherent policies exist for some forms of unbilled, unmetered consumption but others await closer evaluation. Reasonable recordkeeping for the managed uses exists and allows for annual volumes to be quantified by inference, but unsupervised uses are guesstimated.	Conditions between 6 and 8	Clear policies and good recordkeeping exist for some uses (ex: water used in periodic testing of unmetered fire connections), but other uses (ex: miscellaneous uses of fire hydrants) have limited oversight. Total consumption is a mix of well quantified use such as from formulae (time running multiplied by typical flow, multiplied by number of events) or temporary meters, and relatively subjective estimates of less regulated use.	Conditions between 8 and 10	Clear policies exist to identify permitted use of water in unbilled, unmetered fashion, with the intention of minimizing this type of consumption. Good records document each occurrence and consumption is quantified via formulae (time running multiplied by typical flow, multiplied by number of events) or use of temporary meters.
Improvements to attain higher data grading for "Unbilled Unmetered Consumption" component:		to qualify for 5: Utilize the accepted default value of 1.25% of the volume of water supplied as an expedient means to gain a reasonable quantification of this use. to qualify for 2: Establish a policy regarding what water uses should be allowed to remain as unbilled and unmetered. Consider tracking a small sample of one such use (ex: fire hydrant flushing).	to qualify for 5: Utilize accepted default value of 1.25% of the volume of water supplied as an expedient means to gain a reasonable quantification of this use. to qualify for 4: Evaluate the documentation of events that have been observed. Meet with user groups (ex: for fire hydrants - fire departments, contractors to ascertain their need and/or volume requirements for water from fire hydrants).		to qualify for 5: Utilize accepted default value of 1.25% of the volume of water supplied as an expedient means to gain a reasonable quantification of all such use. This is particularly appropriate for water utilities who are in the early stages of the water auditing process, and should focus on other components since the volume of unbilled, unmetered consumption is usually a relatively small quantity component, and other larger-quantity components should take priority.	to qualify for 6 or greater: Finalize policy and begin to conduct field checks to better establish and quantify such usage. Proceed if top-down audit exists and/or a great volume of such use is suspected.	to qualify for 8: Assess water utility policy and procedures for various unmetered usages. For example, ensure that a policy exists and permits are issued for use of fire hydrants by persons outside of the utility. Create written procedures for use and documentation of fire hydrants by water utility personnel. Use same approach for other types of unbilled, unmetered water usage.		to qualify for 10: Refine written procedures to ensure that all uses of unbilled, unmetered water are overseen by a structured permitting process managed by water utility personnel. Reassess policy to determine if some of these uses have value in being converted to billed and/or metered status.		to maintain 10: Continue to refine policy and procedures with intention of reducing the number of allowable uses of water in unbilled and unmetered fashion. Any uses that can feasibly become billed and metered should be converted eventually.
APPARENT LOSSES											

Grading >>>	n/a	1	2	3	4	5	6	7	8	9	10
Unauthorized consumption:		Extent of unauthorized consumption is unknown due to unclear policies and poor recordkeeping. Total unauthorized consumption is guesstimated.	Unauthorized consumption is a known occurrence, but its extent is a mystery. There are no requirements to document observed events, but periodic field reports capture some of these occurrences. Total unauthorized consumption is approximated from this limited data.	conditions between 2 and 4	Procedures exist to document some unauthorized consumption such as observed unauthorized fire hydrant openings. Use formulae to quantify this consumption (time running multiplied typical flowrate, multiplied by number of events).	Default value of 0.25% of volume of water supplied is employed	Coherent policies exist for some forms of unauthorized consumption (more than simply fire hydrant misuse) but others await closer evaluation. Reasonable surveillance and recordkeeping exist for occurrences that fall under the policy. Volumes quantified by inference from these records.	Conditions between 6 and 8	Clear policies and good auditable recordkeeping exist for certain events (ex: tampering with water meters, illegal bypasses of customer meters); but other occurrences have limited oversight. Total consumption is a combination of volumes from formulae (time x typical flow) and subjective estimates of unconfirmed consumption.	Conditions between 8 and 10	Clear policies exist to identify all known unauthorized uses of water. Staff and procedures exist to provide enforcement of policies and detect violations. Each occurrence is recorded and quantified via formulae (estimated time running multiplied by typical flow) or similar methods. All records and calculations should exist in a form that can be audited by a third party.
Improvements to attain higher data grading for "Unauthorized Consumption" component:		to qualify for 5: Use accepted default of 0.25% of volume of water supplied. to qualify for 2: Review utility policy regarding what water uses are considered unauthorized, and consider tracking a small sample of one such occurrence (ex: unauthorized fire hydrant openings)	to qualify for 5: Use accepted default of 0.25% of system input volume to qualify for 4: Review utility policy regarding what water uses are considered unauthorized, and consider tracking a small sample of one such occurrence (ex: unauthorized fire hydrant openings)		to qualify for 5: Utilize accepted default value of 0.25% of volume of water supplied as an expedient means to gain a reasonable quantification of all such use. This is particularly appropriate for water utilities who are in the early stages of the water auditing process.	to qualify for 6 or greater: Finalize policy updates to clearly identify the types of water consumption that are authorized from those usages that fall outside of this policy and are, therefore, unauthorized. Begin to conduct regular field checks. Proceed if the top-down audit already exists and/or a great volume of such use is suspected.	to quality for 8: Assess water utility policies to ensure that all known occurrences of unauthorized consumption are outlawed, and that appropriate penalties are prescribed. Create written procedures for detection and documentation of various occurrences of unauthorized consumption as they are uncovered.		to qualify for 10: Refine written procedures and assign staff to seek out likely occurrences of unauthorized consumption. Explore new locking devices, monitors and other technologies designed to detect and thwart unauthorized consumption.		to maintain 10: Continue to refine policy and procedures to eliminate any loopholes that allow or tacitly encourage unauthorized consumption. Continue to be vigilant in detection, documentation and enforcement efforts.
Customer metering inaccuracies:	select n/a only if the entire customer population is unmetered. In such a case the volume entered must be zero.	Customer meters exist, but with unorganized paper records on meters; no meter accuracy testing or meter replacement program for any size of retail meter. Metering workflow is driven chaotically with no proactive management. Loss volume due to aggregate meter inaccuracy is guesstimated.	Poor recordkeeping and meter oversight is recognized by water utility management who has allotted staff and funding resources to organize improved recordkeeping and start meter accuracy testing. Existing paper records gathered and organized to provide cursory disposition of meter population. Customer meters are tested for accuracy only upon customer request.	Conditions between 2 and 4	Reliable recordkeeping exists; meter information is improving as meters are replaced. Meter accuracy testing is conducted annually for a small number of meters (more than just customer requests, but less than 1% of inventory). A limited number of the oldest meters are replaced each year. Inaccuracy volume is largely an estimate, but refined based upon limited testing data.	Conditions between 4 and 6	A reliable electronic recordkeeping system for meters exists. The meter population includes a mix of new high performing meters and dated meters with suspect accuracy. Routine, but limited, meter accuracy testing and meter replacement occur. Inaccuracy volume is quantified using a mix of reliable and less certain data.	Conditions between 6 and 8	Ongoing meter replacement and accuracy testing result in highly accurate customer meter population. Testing is conducted on samples of meters of varying age and accumulated volume of throughput to determine optimum replacement time for various types of meters.	Ongoing meter replacement and accuracy testing result in highly accurate customer meter population. Statistically significant number of meters are tested in audit year. This testing is conducted on samples of meters of varying age and accumulated volume of throughput to determine optimum replacement time for these meters.	Good records of all active customer meters exist and include as a minimum: meter number, account number/location, type, size and manufacturer. Ongoing meter replacement occurs according to a targeted and justified basis. Regular meter accuracy testing gives a reliable measure of composite inaccuracy volume for the customer meter population. New metering technology is embraced to keep overall accuracy improving. Procedures are reviewed by a third party knowledgeable in the M36 methodology.
Improvements to attain higher data grading for "Customer meter inaccuracy volume" component:	If n/a is selected because the customer meter population is unmetered, consider establishing a new policy to meter the customer population and employ water rates based upon metered volumes.	to qualify for 2: Gather available meter purchase records. Conduct testing on a small number of meters believed to be the most inaccurate. Review staffing needs of the metering group and budget for necessary resources to better organize meter management.	to qualify for 4: Implement a reliable record keeping system for customer meter histories, preferably using electronic methods typically linked to, or part of, the Customer Billing System or Customer Information System. Expand meter accuracy testing to a larger group of meters.		to qualify for 6: Standardize the procedures for meter recordkeeping within an electronic information system. Accelerate meter accuracy testing and meter replacements guided by testing results.		to qualify for 8: Expand annual meter accuracy testing to evaluate a statistically significant number of meter makes/models. Expand meter replacement program to replace statistically significant number of poor performing meters each year.		to qualify for 9: Continue efforts to manage meter population with reliable recordkeeping. Test a statistically significant number of meters each year and analyze test results in an ongoing manner to serve as a basis for a target meter replacement strategy based upon accumulated volume throughput.	to qualify for 10: Continue efforts to manage meter population with reliable recordkeeping, meter testing and replacement. Evaluate new meter types and install one or more types in 5-10 customer accounts each year in order to pilot improving metering technology.	to maintain 10: Increase the number of meters tested and replaced as justified by meter accuracy test data. Continually monitor development of new metering technology and Advanced Metering Infrastructure (AMI) to grasp opportunities for greater accuracy in metering of water flow and management of customer consumption data.

Grading >>>	n/a	1	2	3	4	5	6	7	8	9	10
Systematic Data Handling Errors:	Note: all water utilities incur some amount of this error. Even in water utilities with unmetered customer populations and fixed rate billing, errors occur in annual billing tabulations. Enter a positive value for the volume and select a grading.	Policies and procedures for activation of new customer water billing accounts are vague and lack accountability. Billing data is maintained on paper records which are not well organized. No auditing is conducted to confirm billing data handling efficiency. An unknown number of customers escape routine billing due to lack of billing process oversight.	Policy and procedures for activation of new customer accounts and oversight of billing records exist but need refinement. Billing data is maintained on paper records or insufficiently capable electronic database. Only periodic unstructured auditing work is conducted to confirm billing data handling efficiency. The volume of unbilled water due to billing lapses is a guess.	Conditions between 2 and 4	Policy and procedures for new account activation and oversight of billing operations exist but needs refinement. Computerized billing system exists, but is dated or lacks needed functionality. Periodic, limited internal audits conducted and confirm with approximate accuracy the consumption volumes lost to billing lapses.	Conditions between 4 and 6	Policy and procedures for new account activation and oversight of billing operations is adequate and reviewed periodically. Computerized billing system is in use with basic reporting available. Any effect of billing adjustments on measured consumption volumes is well understood. Internal checks of billing data error conducted annually. Reasonably accurate quantification of consumption volume lost to billing lapses is obtained.	Conditions between 6 and 8	New account activation and billing operations policy and procedures are reviewed at least biannually. Computerized billing system includes an array of reports to confirm billing data and system functionality. Checks are conducted routinely to flag and explain zero consumption accounts. Annual internal checks conducted with third party audit conducted at least once every five years. Accountability checks flag billing lapses. Consumption lost to billing lapses is well quantified and reducing year-by-year.	Conditions between 8 and 10	Sound written policy and procedures exist for new account activation and oversight of customer billing operations. Robust computerized billing system gives high functionality and reporting capabilities which are utilized, analyzed and the results reported each billing cycle. Assessment of policy and data handling errors are conducted internally and audited by third party at least once every three years, ensuring consumption lost to billing lapses is minimized and detected as it occurs.
Improvements to attain higher data grading for "Systematic Data Handling Error volume" component:		to qualify for 2: Draft written policy and procedures for activating new water billing accounts and oversight of billing operations. Investigate and budget for computerized customer billing system. Conduct initial audit of billing records by flow-charting the basic business processes of the customer account/billing function.	to qualify for 4: Finalize written policy and procedures for activation of new billing accounts and overall billing operations management. Implement a computerized customer billing system. Conduct initial audit of billing records as part of this process.		to qualify for 6: Refine new account activation and billing operations procedures and ensure consistency with the utility policy regarding billing, and minimize opportunity for missed billings. Upgrade or replace customer billing system for needed functionality - ensure that billing adjustments don't corrupt the value of consumption volumes. Procedurize internal annual audit process.		to qualify for 8: Formalize regular review of new account activation process and general billing practices. Enhance reporting capability of computerized billing system. Formalize regular auditing process to reveal scope of data handling error. Plan for periodic third party audit to occur at least once every five years.		to qualify for 10: Close policy/procedure loopholes that allow some customer accounts to go unbilled, or data handling errors to exist. Ensure that billing system reports are utilized, analyzed and reported every billing cycle. Ensure that internal and third party audits are conducted at least once every three years.		to maintain 10: Stay abreast of customer information management developments and innovations. Monitor developments of Advanced Metering Infrastructure (AMI) and integrate technology to ensure that customer endpoint information is well-monitored and errors/lapses are at an economic minimum.
SYSTEM DATA											
Length of mains:		Poorly assembled and maintained paper as-built records of existing water main installations makes accurate determination of system pipe length impossible. Length of mains is guesstimated.	Paper records in poor or uncertain condition (no annual tracking of installations & abandonments). Poor procedures to ensure that new water mains installed by developers are accurately documented.	Conditions between 2 and 4	Sound written policy and procedures exist for documenting new water main installations, but gaps in management result in a uncertain degree of error in tabulation of mains length.	Conditions between 4 and 6	Sound written policy and procedures exist for permitting and commissioning new water mains. Highly accurate paper records with regular field validation; or electronic records and asset management system in good condition. Includes system backup.	Conditions between 6 and 8	Sound written policy and procedures exist for permitting and commissioning new water mains. Electronic recordkeeping such as a Geographical Information System (GIS) and asset management system are used to store and manage data.	Conditions between 8 and 10	Sound written policy exists for managing water mains extensions and replacements. Geographic Information System (GIS) data and asset management database agree and random field validation proves truth of databases. Records of annual field validation should be available for review.
Improvements to attain higher data grading for "Length of Water Mains" component:		to qualify for 2: Assign personnel to inventory current as-built records and compare with customer billing system records and highway plans in order to verify poorly documented pipelines. Assemble policy documents regarding permitting and documentation of water main installations by the utility and building developers; identify gaps in procedures that result in poor documentation of new water main installations.	to qualify for 4: Complete inventory of paper records of water main installations for several years prior to audit year. Review policy and procedures for commissioning and documenting new water main installation.		to qualify for 6: Finalize updates/improvements to written policy and procedures for permitting/commissioning new main installations. Confirm inventory of records for five years prior to audit year; correct any errors or omissions.		to qualify for 8: Launch random field checks of limited number of locations. Convert to electronic database such as a Geographic Information System (GIS) with backup as justified. Develop written policy and procedures.		to qualify for 10: Link Geographic Information System (GIS) and asset management databases, conduct field verification of data. Record field verification information at least annually.		to maintain 10: Continue with standardization and random field validation to improve the completeness and accuracy of the system.
Number of active AND inactive service connections:		Vague permitting (of new service connections) policy and poor paper recordkeeping of customer connections/billings result in suspect determination of the number of service connections, which may be 10-15% in error from actual count.	General permitting policy exists but paper records, procedural gaps, and weak oversight result in questionable total for number of connections, which may vary 5-10% of actual count.	Conditions between 2 and 4	Written account activation policy and procedures exist, but with some gaps in performance and oversight. Computerized information management system is being brought online to replace dated paper recordkeeping system. Reasonably accurate tracking of service connection installations & abandonments; but count can be up to 5% in error from actual total.	Conditions between 4 and 6	Written new account activation and overall billing policies and procedures are adequate and reviewed periodically. Computerized information management system is in use with annual installations & abandonments totaled. Very limited field verifications and audits. Error in count of number of service connections is believed to be no more than 3%.	Conditions between 6 and 8	Policies and procedures for new account activation and overall billing operations are written, well-structured and reviewed at least biannually. Well-managed computerized information management system exists and routine, periodic field checks and internal system audits are conducted. Counts of connections are no more than 2% in error.	Conditions between 8 and 10	Sound written policy and well managed and audited procedures ensure reliable management of service connection population. Computerized information management system, Customer Billing System, and Geographic Information System (GIS) information agree; field validation proves truth of databases. Count of connections recorded as being in error is less than 1% of the entire population.
Improvements to attain higher data grading for "Number of Active and Inactive Service Connections" component:	**Note: The number of Service Connections does not include fire hydrant leads/lines connecting the hydrant to the water main**	to qualify for 2: Draft new policy and procedures for new account activation and overall billing operations. Research and collect paper records of installations & abandonments for several years prior to audit year.	to qualify for 4: Refine policy and procedures for new account activation and overall billing operations. Research computerized recordkeeping system (Customer Information System or Customer Billing System) to improve documentation format for service connections.		to qualify for 6: Refine procedures to ensure consistency with new account activation and overall billing policy to establish new service connections or decommission existing connections. Improve process to include all totals for at least five years prior to audit year.		to qualify for 8: Formalize regular review of new account activation and overall billing operations policies and procedures. Launch random field checks of limited number of locations. Develop reports and auditing mechanisms for computerized information management system.		to qualify for 10: Close any procedural loopholes that allow installations to go undocumented. Link computerized information management system with Geographic Information System (GIS) and formalize field inspection and information system auditing processes. Documentation of new or decommissioned service connections encounters several levels of checks and balances.		to maintain 10: Continue with standardization and random field validation to improve knowledge of system.
	Note: if customer water	Gradings 1-9 apply if customer properties are unmetered, if customer meters exist and are located inside the customer building premises, or if the water utility owns and is responsible for the entire service connection piping from the water main to the customer building. In any of these cases the average distance between the curb stop or boundary separating utility/customer responsibility for service connection piping, and the typical first point of use (ex: faucet) or the customer meter must be quantified. Gradings of 1-9 are used to grade the validity of the means to quantify this value. (See the "Service Connection Diagram" worksheet)									Either of two conditions can be met for a grading of 10:

Grading >>>	n/a	1	2	3	4	5	6	7	8	9	10
Average length of customer service line:	meters are located outside of the customer building next to the curb stop or boundary separating utility/customer responsibility, then the auditor should answer "Yes" to the question on the Reporting Worksheet asking about this. If the answer is Yes, the grading description listed under the Grading of 10(a) will be followed, with a value of zero automatically entered at a Grading of 10. See the Service Connection Diagram worksheet for a visual presentation of this distance.	Vague policy exists to define the delineation of water utility ownership and customer ownership of the service connection piping. Curb stops are perceived as the breakpoint but these have not been well-maintained or documented. Most are buried or obscured. Their location varies widely from site-to-site, and estimating this distance is arbitrary due to the unknown location of many curb stops.	Policy requires that the curb stop serves as the delineation point between water utility ownership and customer ownership of the service connection piping. The piping from the water main to the curb stop is the property of the water utility; and the piping from the curb stop to the customer building is owned by the customer. Curb stop locations are not well documented and the average distance is based upon a limited number of locations measured in the field.	Conditions between 2 and 4	Good policy requires that the curb stop serves as the delineation point between water utility ownership and customer ownership of the service connection piping. Curb stops are generally installed as needed and are reasonably documented. Their location varies widely from site-to-site, and an estimate of this distance is hindered by the availability of paper records of limited accuracy.	Conditions between 4 and 6	Clear written policy exists to define utility/customer responsibility for service connection piping. Accurate, well-maintained paper or basic electronic recordkeeping system exists. Periodic field checks confirm piping lengths for a sample of customer properties.	Conditions between 6 and 8	Clearly worded policy standardizes the location of curb stops and meters, which are inspected upon installation. Accurate and well maintained electronic records exist with periodic field checks to confirm locations of service lines, curb stops and customer meter pits. An accurate number of customer properties from the customer billing system allows for reliable averaging of this length.	Conditions between 8 and 10	a) Customer water meters exist outside of customer buildings next to the curb stop or boundary separating utility/customer responsibility for service connection piping. If so, answer "Yes" to the question on the Reporting Working asking about this condition. A value of zero and a Grading of 10 are automatically entered in the Reporting Worksheet . b). Meters exist inside customer buildings, or properties are unmetered. In either case, answer "No" to the Reporting Worksheet question on meter location, and enter a distance determined by the auditor. For a Grading of 10 this value must be a very reliable number from a Geographic Information System (GIS) and confirmed by a statistically valid number of field checks.
Improvements to attain higher data grading for "Average Length of Customer Service Line" component:		to qualify for 2: Research and collect paper records of service line installations. Inspect several sites in the field using pipe locators to locate curb stops. Obtain the length of this small sample of connections in this manner.	to qualify for 4: Formalize and communicate policy delineating utility/customer responsibilities for service connection piping. Assess accuracy of paper records by field inspection of a small sample of service connections using pipe locators as needed. Research the potential migration to a computerized information management system to store service connection data.		to qualify for 6: Establish coherent procedures to ensure that policy for curb stop, meter installation and documentation is followed. Gain consensus within the water utility for the establishment of a computerized information management system.		to qualify for 8: Implement an electronic means of recordkeeping, typically via a customer information system, customer billing system, or Geographic Information System (GIS). Standardize the process to conduct field checks of a limited number of locations.		to qualify for 10: Link customer information management system and Geographic Information System (GIS), standardize process for field verification of data.		to maintain 10: Continue with standardization and random field validation to improve knowledge of service connection configurations and customer meter locations.
Average operating pressure:		Available records are poorly assembled and maintained paper records of supply pump characteristics and water distribution system operating conditions. Average pressure is guesstimated based upon this information and ground elevations from crude topographical maps. Widely varying distribution system pressures due to undulating terrain, high system head loss and weak/erratic pressure controls further compromise the validity of the average pressure calculation.	Limited telemetry monitoring of scattered pumping station and water storage tank sites provides some static pressure data, which is recorded in handwritten logbooks. Pressure data is gathered at individual sites only when low pressure complaints arise. Average pressure is determined by averaging relatively crude data, and is affected by significant variation in ground elevations, system head loss and gaps in pressure controls in the distribution system.	Conditions between 2 and 4	Effective pressure controls separate different pressure zones; moderate pressure variation across the system, occasional open boundary valves are discovered that breech pressure zones. Basic telemetry monitoring of the distribution system logs pressure data electronically. Pressure data gathered by gauges or dataloggers at fire hydrants or buildings when low pressure complaints arise, and during fire flow tests and system flushing. Reliable topographical data exists. Average pressure is calculated using this mix of data.	Conditions between 4 and 6	Reliable pressure controls separate distinct pressure zones; only very occasional open boundary valves are encountered that breech pressure zones. Well-covered telemetry monitoring of the distribution system (not just pumping at source treatment plants or wells) logs extensive pressure data electronically. Pressure gathered by gauges/dataloggers at fire hydrants and buildings when low pressure complaints arise, and during fire flow tests and system flushing. Average pressure is determined by using this mix of reliable data.	Conditions between 6 and 8	Well-managed, discrete pressure zones exist with generally predictable pressure fluctuations. A current full-scale SCADA System or similar realtime monitoring system exists to monitor the water distribution system and collect data, including real time pressure readings at representative sites across the system. The average system pressure is determined from reliable monitoring system data.	Conditions between 8 and 10	Well-managed pressure districts/zones, SCADA System and hydraulic model exist to give very precise pressure data across the water distribution system. Average system pressure is reliably calculated from extensive, reliable, and cross-checked data. Calculations are reported on an annual basis as a minimum.
Improvements to attain higher data grading for "Average Operating Pressure" component:		to qualify for 2: Employ pressure gauging and/or datalogging equipment to obtain pressure measurements from fire hydrants. Locate accurate topographical maps of service area in order to confirm ground elevations. Research pump data sheets to find pump pressure/flow characteristics	to qualify for 4: Formalize a procedure to use pressure gauging/datalogging equipment to gather pressure data during various system events such as low pressure complaints, or operational testing. Gather pump pressure and flow data at different flow regimes. Identify faulty pressure controls (pressure reducing valves, altitude valves, partially open boundary valves) and plan to properly configure pressure zones. Make all pressure data from these efforts available to generate system-wide average pressure.		to qualify for 6: Expand the use of pressure gauging/datalogging equipment to gather scattered pressure data at a representative set of sites, based upon pressure zones or areas. Utilize pump pressure and flow data to determine supply head entering each pressure zone or district. Correct any faulty pressure controls (pressure reducing valves, altitude valves, partially open boundary valves) to ensure properly configured pressure zones. Use expanded pressure dataset from these activities to generate system-wide average pressure.		to qualify for 8: Install a Supervisory Control and Data Acquisition (SCADA) System, or similar realtime monitoring system, to monitor system parameters and control operations. Set regular calibration schedule for instrumentation to insure data accuracy. Obtain accurate topographical data and utilize pressure data gathered from field surveys to provide extensive, reliable data for pressure averaging.		to qualify for 10: Annually, obtain a system-wide average pressure value from the hydraulic model of the distribution system that has been calibrated via field measurements in the water distribution system and confirmed in comparisons with SCADA System data.		to maintain 10: Continue to refine the hydraulic model of the distribution system and consider linking it with SCADA System for real-time pressure data calibration, and averaging.

Grading >>>	n/a	1	2	3	4	5	6	7	8	9	10
COST DATA											
Total annual cost of operating water system:		Incomplete paper records and lack of financial accounting documentation on many operating functions makes calculation of water system operating costs a pure guesstimate	Reasonably maintained, but incomplete, paper or electronic accounting provides data to estimate the major portion of water system operating costs.	Conditions between 2 and 4	Electronic, industry-standard cost accounting system in place. However, gaps in data are known to exist, periodic internal reviews are conducted but not a structured financial audit.	Conditions between 4 and 6	Reliable electronic, industry-standard cost accounting system in place, with all pertinent water system operating costs tracked. Data audited periodically by utility personnel, but not a Certified Public Accountant (CPA).	Conditions between 6 and 8	Reliable electronic, industry-standard cost accounting system in place, with all pertinent water system operating costs tracked. Data audited at least annually by utility personnel, and at least once every three years by third-party CPA.	Conditions between 8 and 10	Reliable electronic, industry-standard cost accounting system in place, with all pertinent water system operating costs tracked. Data audited annually by utility personnel and annually also by third-party CPA.
Improvements to attain higher data grading for "Total Annual Cost of Operating the Water System" component:		to qualify for 2: Gather available records, institute new financial accounting procedures to regularly collect and audit basic cost data of most important operations functions.	to qualify for 4: Implement an electronic cost accounting system, structured according to accounting standards for water utilities		to qualify for 6: Establish process for periodic internal audit of water system operating costs; identify cost data gaps and institute procedures for tracking these outstanding costs.		to qualify for 8: Standardize the process to conduct routine financial audit on an annual basis. Arrange for CPA audit of financial records at least once every three years.		to qualify for 10: Standardize the process to conduct a third-party financial audit by a CPA on an annual basis.		to maintain 10: Maintain program, stay abreast of expenses subject to erratic cost changes and long-term cost trend, and budget/track costs proactively
Customer retail unit cost (applied to Apparent Losses):	Customer population unmetered, and/or only a fixed fee is charged for consumption.	Antiquated, cumbersome water rate structure is used, with periodic historic amendments that were poorly documented and implemented; resulting in classes of customers being billed inconsistent charges. The actual composite billing rate likely differs significantly from the published water rate structure, but a lack of auditing leaves the degree of error indeterminate.	Dated, cumbersome water rate structure, not always employed consistently in actual billing operations. The actual composite billing rate is known to differ from the published water rate structure, and a reasonably accurate estimate of the degree of error is determined, allowing a composite billing rate to be quantified.	Conditions between 2 and 4	Straight-forward water rate structure in use, but not updated in several years. Billing operations reliably employ the rate structure. The composite billing rate is derived from a single customer class such as residential customer accounts, neglecting the effect of different rates from varying customer classes.	Conditions between 4 and 6	Clearly written, up-to-date water rate structure is in force and is applied reliably in billing operations. Composite customer rate is determined using a weighted average residential rate using volumes of water in each rate block.	Conditions between 6 and 8	Effective water rate structure is in force and is applied reliably in billing operations. Composite customer rate is determined using a weighted average composite consumption rate, which includes residential, commercial, industrial, institutional (CII), and any other distinct customer classes within the water rate structure.	Conditions between 8 and 10	Current, effective water rate structure is in force and applied reliably in billing operations. The rate structure and calculations of composite rate - which includes residential, commercial, industrial, institutional (CII), and other distinct customer classes - are reviewed by a third party knowledgeable in the M36 methodology at least once every five years.
Improvements to attain higher data grading for "Customer Retail Unit Cost" component:		to qualify for 2: Formalize the process to implement water rates, including a secure documentation procedure. Create a current, formal water rate document and gain approval from all stakeholders.	to qualify for 4: Review the water rate structure and update/formalize as needed. Assess billing operations to ensure that actual billing operations incorporate the established water rate structure.		to qualify for 6: Evaluate volume of water used in each usage block by residential users. Multiply volumes by full rate structure.	Launch effort to fully meter the customer population and charge rates based upon water volumes	to qualify for 8: Evaluate volume of water used in each usage block by all classifications of users. Multiply volumes by full rate structure.		to qualify for 10: Conduct a periodic third-party audit of water used in each usage block by all classifications of users. Multiply volumes by full rate structure.		to maintain 10: Keep water rate structure current in addressing the water utility's revenue needs. Update the calculation of the customer unit rate as new rate components, customer classes, or other components are modified.
Variable production cost (applied to Real Losses):	Note: if the water utility purchases/imports its entire water supply, then enter the unit purchase cost of the bulk water supply in the Reporting Worksheet with a grading of 10	Incomplete paper records and lack of documentation on primary operating functions (electric power and treatment costs most importantly) makes calculation of variable production costs a pure guesstimate	Reasonably maintained, but incomplete, paper or electronic accounting provides data to roughly estimate the basic operations costs (pumping power costs and treatment costs) and calculate a unit variable production cost.	Conditions between 2 and 4	Electronic, industry-standard cost accounting system in place. Electric power and treatment costs are reliably tracked and allow accurate weighted calculation of unit variable production costs based on these two inputs and water imported purchase costs (if applicable). All costs are audited internally on a periodic basis.	Conditions between 4 and 6	Reliable electronic, industry-standard cost accounting system in place, with all pertinent water system operating costs tracked. Pertinent additional costs beyond power, treatment and water imported purchase costs (if applicable) such as liability, residuals management, wear and tear on equipment, impending expansion of supply, are included in the unit variable production cost, as applicable. The data is audited at least annually by utility personnel.	Conditions between 6 and 8	Reliable electronic, industry-standard cost accounting system in place, with all pertinent primary and secondary variable production and water imported purchase (if applicable) costs tracked. The data is audited at least annually by utility personnel, and at least once every three years by a third-party knowledgeable in the M36 methodology.	Conditions between 8 and 10	Either of two conditions can be met to obtain a grading of 10: 1) Third party CPA audit of all pertinent primary and secondary variable production and water imported purchase (if applicable) costs on an annual basis. or: 2) Water supply is entirely purchased as bulk imported water, and unit purchase cost serves as the variable production cost.
Improvements to attain higher data grading for "Variable Production Cost" component:		to qualify for 2: Gather available records, institute new procedures to regularly collect and audit basic cost data and most important operations functions.	to qualify for 4: Implement an electronic cost accounting system, structured according to accounting standards for water utilities		to qualify for 6: Formalize process for regular internal audits of production costs. Assess whether additional costs (liability, residuals management, equipment wear, impending infrastructure expansion) should be included to calculate a more representative variable production cost.		to qualify for 8: Formalize the accounting process to include direct cost components (power, treatment) as well as indirect cost components (liability, residuals management, etc.) Arrange to conduct audits by a knowledgeable third-party at least once every three years.		to qualify for 10: Standardize the process to conduct a third-party financial audit by a CPA on an annual basis.		to maintain 10: Maintain program, stay abreast of expenses subject to erratic cost changes and budget/track costs proactively

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Average Length of Customer Service Line

The three figures shown on this worksheet display the assignment of the Average Length of Customer Service Line, Lp, for the three most common piping configurations.

Figure 1 shows the configuration of the water meter outside of the customer building next to the curb stop valve. In this configuration Lp = 0 since the distance between the curb stop and the customer metering point is essentially zero.

Figure 2 shows the configuration of the customer water meter located inside the customer building, where Lp is the distance from the curb stop to the water meter.

Figure 3 shows the configuration of an unmetered customer building , where Lp is the distance from the curb stop to the first point of customer water consumption, or, more simply, the building line.

In any water system the Lp will vary notably in a community of different structures, therefore the average Lp value is used and this should be approximated or calculated if a sample of service line measurements has been gathered.

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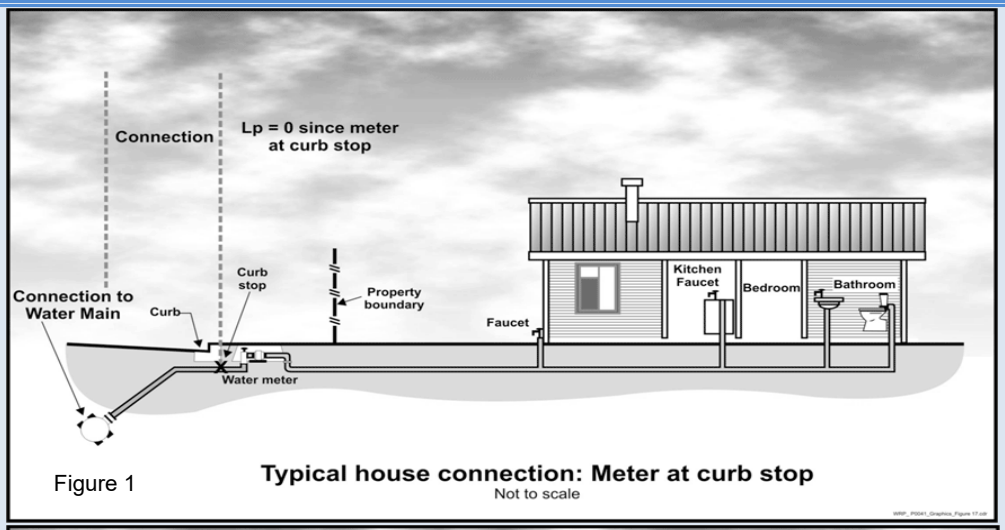


Figure 1 **Typical house connection: Meter at curb stop**
Not to scale

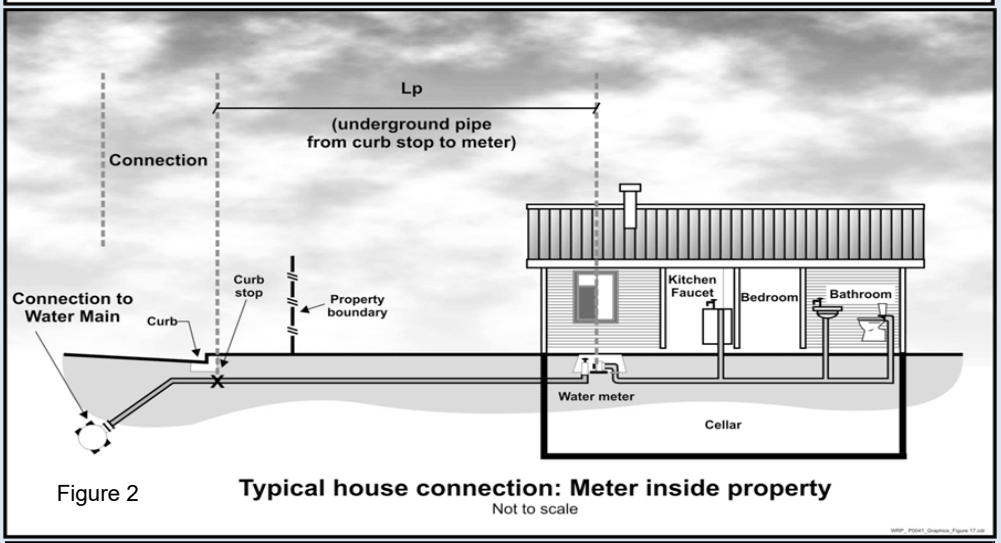


Figure 2 **Typical house connection: Meter inside property**
Not to scale

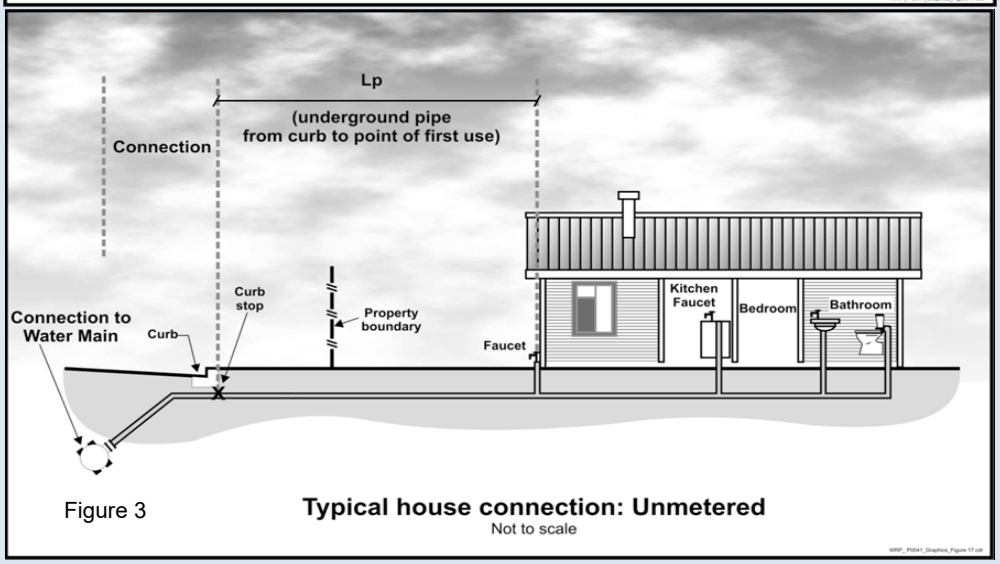


Figure 3 **Typical house connection: Unmetered**
Not to scale

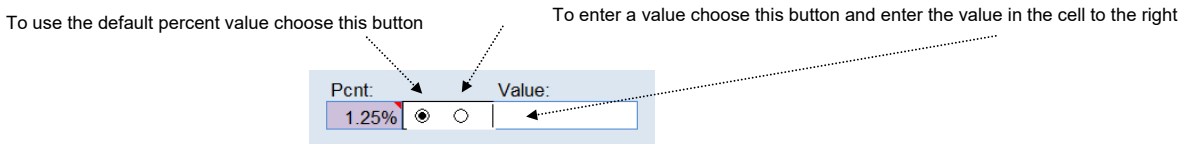
AWWA Free Water Audit Software: Definitions

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Item Name	Description
Apparent Losses Find	= unauthorized consumption + customer metering inaccuracies + systematic data handling errors Apparent Losses include all types of inaccuracies associated with customer metering (worn meters as well as improperly sized meters or wrong type of meter for the water usage profile) as well as systematic data handling errors (meter reading, billing, archiving and reporting), plus unauthorized consumption (theft or illegal use). NOTE: Over-estimation of Apparent Losses results in under-estimation of Real Losses. Under-estimation of Apparent Losses results in over-estimation of Real Losses.
AUTHORIZED CONSUMPTION Find	= billed water exported + billed metered + billed unmetered + unbilled metered + unbilled unmetered consumption The volume of metered and/or unmetered water taken by registered customers, the water utility's own uses, and uses of others who are implicitly or explicitly authorized to do so by the water utility; for residential, commercial, industrial and public-minded purposes. Typical retail customers' consumption is tabulated usually from established customer accounts as billed metered consumption, or - for unmetered customers - billed unmetered consumption. These types of consumption, along with billed water exported, provide revenue potential for the water utility. **Be certain to tabulate the water exported volume as a separate component and do not "double-count" it by including in the billed metered consumption component as well as the water exported component.** Unbilled authorized consumption occurs typically in non-account uses, including water for fire fighting and training, flushing of water mains and sewers, street cleaning, watering of municipal gardens, public fountains, or similar public-minded uses. Occasionally these uses may be metered and billed (or charged a flat fee), but usually they are unmetered and unbilled. In the latter case, the water auditor may use a default value to estimate this quantity, or implement procedures for the reliable quantification of these uses. This starts with documenting usage events as they occur and estimating the amount of water used in each event. (See Unbilled unmetered consumption)
View Service Connection Diagram **Average length of customer service line** Find	This is the average length of customer service line, Lp, that is owned and maintained by the customer; from the point of ownership transfer to the customer water meter, or building line (if unmetered). The quantity is one of the data inputs for the calculation of Unavoidable Annual Real Losses (UARL), which serves as the denominator of the performance indicator: Infrastructure Leakage Index (ILI). The value of Lp is multiplied by the number of customer service connections to obtain a total length of customer owned piping in the system. The purpose of this parameter is to account for the unmetered service line infrastructure that is the responsibility of the customer for arranging repairs of leaks that occur on their lines. In many cases leak repairs arranged by customers take longer to be executed than leak repairs arranged by the water utility on utility-maintained piping. Leaks run longer - and lose more water - on customer-owned service piping, than utility owned piping. If the customer water meter exists near the ownership transfer point (usually the curb stop located between the water main and the customer premises) this distance is zero because the meter and transfer point are the same. This is the often encountered configuration of customer water meters located in an underground meter box or "pit" outside of the customer's building. The Free Water Audit Software asks a "Yes/No" question about the meter at this location. If the auditor selects "Yes" then this distance is set to zero and the data grading score for this component is set to 10. If water meters are typically located inside the customer premise/building, or properties are unmetered, it is up to the water auditor to estimate a system-wide average Lp length based upon the various customer land parcel sizes and building locations in the service area. Lp will be a shorter length in areas of high density housing, and a longer length in areas of low density housing and varied commercial and industrial buildings. General parcel demographics should be employed to obtain a composite average Lp length for the entire system. Refer to the "Service Connection Diagram" worksheet for a depiction of the service line/metering configurations that typically exist in water utilities. This worksheet gives guidance on the determination of the Average Length, Lp, for each configuration.
Average operating pressure Find	This is the average pressure in the distribution system that is the subject of the water audit. Many water utilities have a calibrated hydraulic model of their water distribution system. For these utilities, the hydraulic model can be utilized to obtain a very accurate quantity of average pressure. In the absence of a hydraulic model, the average pressure may be approximated by obtaining readings of static water pressure from a representative sample of fire hydrants or other system access points evenly located across the system. A weighted average of the pressure can be assembled; but be sure to take into account the elevation of the fire hydrants, which typically exist several feet higher than the level of buried water pipelines. If the water utility is compiling the water audit for the first time, the average pressure can be approximated, but with a low data grading. In subsequent years of auditing, effort should be made to improve the accuracy of the average pressure quantity. This will then qualify the value for a higher data grading.
Billed Authorized Consumption	All consumption that is billed and authorized by the utility. This may include both metered and unmetered consumption. See "Authorized Consumption" for more information.
Billed metered consumption Find	All metered consumption which is billed to retail customers, including all groups of customers such as domestic, commercial, industrial or institutional. **It does NOT include water supplied to neighboring utilities (water exported) which is metered and billed. Be sure to subtract any consumption for exported water sales that may be included in these billing roles. Water supplied as exports to neighboring water utilities should be included only in the Water Exported component.** The metered consumption data can be taken directly from billing records for the water audit period. The accuracy of yearly metered consumption data can be refined by including an adjustment to account for customer meter reading lag time since not all customer meters are read on the same day of the meter reading period. However additional analysis is necessary to determine the lag time adjustment value, which may or may not be significant.
Billed unmetered consumption Find	All billed consumption which is calculated based on estimates or norms from water usage sites that have been determined by utility policy to be left unmetered. This is typically a very small component in systems that maintain a policy to meter their customer population. However, this quantity can be the key consumption component in utilities that have not adopted a universal metering policy. **This component should NOT include any water that is supplied to neighboring utilities (water exported) which is unmetered but billed. Water supplied as exports to neighboring water utilities should be included only in the Water Exported component.**

Item Name	Description
Customer metering inaccuracies Find	Apparent water losses caused by the collective under-registration of customer water meters. Many customer water meters gradually wear as large cumulative volumes of water are passed through them over time. This causes the meters to under-register the flow of water. This occurrence is common with smaller residential meters of sizes 5/8-inch and 3/4 inch after they have registered very large cumulative volumes of water, which generally occurs only after periods of years. For meters sized 1-inch and larger - typical of multi-unit residential, commercial and industrial accounts - meter under-registration can occur from wear or from the improper application of the meter; i.e. installing the wrong type of meter or the wrong size of meter, for the flow pattern (profile) of the consumer. For instance, many larger meters have reduced accuracy at low flows. If an oversized meter is installed, most of the time the routine flow will occur in the low flow range of the meter, and a significant portion of it may not be registered. It is important to properly select and install all meters, but particularly large customer meters, size 1-inch and larger. The auditor has two options for entering data for this component of the audit. The auditor can enter a percentage under-registration (typically an estimated value), this will apply the selected percentage to the two categories of metered consumption to determine the volume of water not recorded due to customer meter inaccuracy. Note that this percentage is a composite average inaccuracy for all customer meters in the entire meter population. The percentage will be multiplied by the sum of the volumes in the Billed Metered and Unbilled Metered components. Alternatively, if the auditor has substantial data from meter testing activities, he or she can calculate their own loss volumes, and this volume may be entered directly. Note that a value of zero will be accepted but an alert will appear asking if the customer population is unmetered. Since all metered systems have some degree of inaccuracy, a positive value should be entered. A value of zero in this component is valid only if the water utility does not meter its customer population.
Customer retail unit cost Find	The Customer Retail Unit Cost represents the charge that customers pay for water service. This unit cost is applied routinely to the components of Apparent Loss, since these losses represent water reaching customers but not (fully) paid for. Since most water utilities have a rate structure that includes a variety of different costs based upon class of customer, a weighted average of individual costs and number of customer accounts in each class can be calculated to determine a single composite cost that should be entered into this cell. Finally, the weighted average cost should also include additional charges for sewer, storm water or biosolids processing, but only if these charges are based upon the volume of potable water consumed. For water utilities in regions with limited water resources and a questionable ability to meet the drinking water demands in the future, the Customer Retail Unit Cost might also be applied to value the Real Losses; instead of applying the Variable Production Cost to Real Losses. In this way, it is assumed that every unit volume of leakage reduced by leakage management activities will be sold to a customer. Note: the Free Water Audit Software allows the user to select the units that are charged to customers (either $/1,000 gallons, $/hundred cubic feet, or $/1,000 litres) and automatically converts these units to the units that appear in the "WATER SUPPLIED" box. The monetary units are United States dollars, $.
Infrastructure Leakage Index (ILI) Find	The ratio of the Current Annual Real Losses (Real Losses) to the Unavoidable Annual Real Losses (UARL). The ILI is a highly effective performance indicator for comparing (benchmarking) the performance of utilities in operational management of real losses.
Length of mains Find	Length of all pipelines (except service connections) in the system starting from the point of system input metering (for example at the outlet of the treatment plant). It is also recommended to include in this measure the total length of fire hydrant lead pipe. Hydrant lead pipe is the pipe branching from the water main to the fire hydrant. Fire hydrant leads are typically of a sufficiently large size that is more representative of a pipeline than a service connection. The average length of hydrant leads across the entire system can be assumed if not known, and multiplied by the number of fire hydrants in the system, which can also be assumed if not known. This value can then be added to the total pipeline length. Total length of mains can therefore be calculated as: Length of Mains, miles = (total pipeline length, miles) + [{(average fire hydrant lead length, ft) x (number of fire hydrants)} / 5,280 ft/mile] or Length of Mains, kilometres = (total pipeline length, kilometres) + [{(average fire hydrant lead length, metres) x (number of fire hydrants)} / 1,000 metres/kilometre]
NON-REVENUE WATER Find	= Apparent Losses + Real Losses + Unbilled Metered Consumption + Unbilled Unmetered Consumption. This is water which does not provide revenue potential to the utility.
Number of active AND inactive service connections Find	Number of customer service connections, extending from the water main to supply water to a customer. Please note that this includes the actual number of distinct piping connections, including fire connections, whether active or inactive. This may differ substantially from the number of customers (or number of accounts). **Note: this number does not include the pipeline leads to fire hydrants - the total length of piping supplying fire hydrants should be included in the "Length of mains" parameter.**
Real Losses Find	Physical water losses from the pressurized system (water mains and customer service connections) and the utility's storage tanks, up to the point of customer consumption. In metered systems this is the customer meter, in unmetered situations this is the first point of consumption (stop tap/tap) within the property. The annual volume lost through all types of leaks, breaks and overflows depends on frequencies, flow rates, and average duration of individual leaks, breaks and overflows.
Revenue Water	Those components of System Input Volume that are billed and have the potential to produce revenue.
Service Connection Density Find	=number of customer service connections / length of mains

Item Name	Description
Systematic data handling errors Find	Apparent losses caused by accounting omissions, errant computer programming, gaps in policy, procedure, and permitting/activation of new accounts; and any type of data lapse that results in under-stated customer water consumption in summary billing reports. Systematic Data Handling Errors result in a direct loss of revenue potential. Water utilities can find "lost" revenue by keying on this component. Utilities typically measure water consumption registered by water meters at customer premises. The meter should be read routinely (ex: monthly) and the data transferred to the Customer Billing System, which generates and sends a bill to the customer. Data Transfer Errors result in the consumption value being less than the actual consumption, creating an apparent loss. Such error might occur from illegible and mis-recorded hand-written readings compiled by meter readers, inputting an incorrect meter register unit conversion factor in the automatic meter reading equipment, or a variety of similar errors. Apparent losses also occur from Data Analysis Errors in the archival and data reporting processes of the Customer Billing System. Inaccurate estimates used for accounts that fail to produce a meter reading are a common source of error. Billing adjustments may award customers a rightful monetary credit, but do so by creating a negative value of consumption, thus under-stating the actual consumption. Account activation lapses may allow new buildings to use water for months without meter readings and billing. Poor permitting and construction inspection practices can result in a new building lacking a billing account, a water meter and meter reading; i.e., the customer is unknown to the utility's billing system. Close auditing of the permitting, metering, meter reading, billing and reporting processes of the water consumption data trail can uncover data management gaps that create volumes of systematic data handling error. Utilities should routinely analyze customer billing records to detect data anomalies and quantify these losses. For example, a billing account that registers zero consumption for two or more billing cycles should be checked to explain why usage has seemingly halted. Given the revenue loss impacts of these losses, water utilities are well-justified in providing continuous oversight and timely correction of data transfer errors & data handling errors. If the water auditor has not yet gathered detailed data or assessment of systematic data handling error, it is recommended that the auditor apply the default value of 0.25% of the Billed Authorized Consumption volume. However, if the auditor has investigated the billing system and its controls, and has well validated data that indicates the volume from systematic data handling error is substantially higher or lower than that generated by the default value, then the auditor should enter a quantity that was derived from the utility investigations and select an appropriate grading. Note: negative values are not allowed for this audit component. If the auditor enters zero for this component then a grading of 1 will be automatically assigned.
Total annual cost of operating the water system Find	These costs include those for operations, maintenance and any annually incurred costs for long-term upkeep of the drinking water supply and distribution system. It should include the costs of day-to-day upkeep and long-term financing such as repayment of capital bonds for infrastructure expansion or improvement. Typical costs include employee salaries and benefits, materials, equipment, insurance, fees, administrative costs and all other costs that exist to sustain the drinking water supply. Depending upon water utility accounting procedures or regulatory agency requirements, it may be appropriate to include depreciation in the total of this cost. This cost should not include any costs to operate wastewater, biosolids or other systems outside of drinking water.
Unauthorized consumption Find	Includes water illegally withdrawn from fire hydrants, illegal connections, bypasses to customer consumption meters, or tampering with metering or meter reading equipment; as well as any other ways to receive water while thwarting the water utility's ability to collect revenue for the water. Unauthorized consumption results in uncaptured revenue and creates an error that understates customer consumption. In most water utilities this volume is low and, if the water auditor has not yet gathered detailed data for these loss occurrences, it is recommended that the auditor apply a default value of 0.25% of the volume of water supplied. However, if the auditor has investigated unauthorized occurrences, and has well validated data that indicates the volume from unauthorized consumption is substantially higher or lower than that generated by the default value, then the auditor should enter a quantity that was derived from the utility investigations. Note that a value of zero will not be accepted since all water utilities have some volume of unauthorized consumption occurring in their system. Note: if the auditor selects the default value for unauthorized consumption, a data grading of 5 is automatically assigned, but not displayed on the Reporting Worksheet.
Unavoidable Annual Real Losses (UARL) Find	UARL (gallons/day)=(5.41Lm + 0.15Nc + 7.5Lc) xP, or UARL (litres/day)=(18.0Lm + 0.8Nc + 25.0Lc) xP where: Lm = length of mains (miles or kilometres) Nc = number of customer service connections Lp = the average distance of customer service connection piping (feet or metres) (see the Worksheet "Service Connection Diagram" for guidance on deterring the value of Lp) Lc = total length of customer service connection piping (miles or km) Lc = Nc X Lp (miles or kilometres) P = Pressure (psi or metres) The UARL is a theoretical reference value representing the technical low limit of leakage that could be achieved if all of today's best technology could be successfully applied. It is a key variable in the calculation of the Infrastructure Leakage Index (ILI). Striving to reduce system leakage to a level close to the UARL is usually not needed unless the water supply is unusually expensive, scarce or both. NOTE: The UARL calculation has not yet been proven as fully valid for very small, or low pressure water distribution systems. If, in gallons per day: (Lm x 32) + Nc < 3000 or P <35psi in litres per day: (Lm x 20) + Nc < 3000 or P < 25m then the calculated UARL value may not be valid. The software does not display a value of UARL or ILI if either of these conditions is true.

Item Name	Description
Unbilled Authorized Consumption	All consumption that is unbilled, but still authorized by the utility. This includes Unbilled Metered Consumption + Unbilled Unmetered Consumption. See "Authorized Consumption" for more information. For Unbilled Unmetered Consumption, the Free Water Audit Software provides the auditor the option to select a default value if they have not audited unmetered activities in detail. The default calculates a volume that is 1.25% of the Water Supplied volume. If the auditor has carefully audited the various unbilled, unmetered, authorized uses of water, and has established reliable estimates of this collective volume, then he or she may enter the volume directly for this component, and not use the default value.
Unbilled metered consumption Find	Metered consumption which is authorized by the water utility, but, for any reason, is deemed by utility policy to be unbilled. This might for example include metered water consumed by the utility itself in treatment or distribution operations, or metered water provided to civic institutions free of charge. **It does not include water supplied to neighboring utilities (water exported) which may be metered but not billed.**
Unbilled unmetered consumption Find	Any kind of Authorized Consumption which is neither billed or metered. This component typically includes water used in activities such as fire fighting, flushing of water mains and sewers, street cleaning, fire flow tests conducted by the water utility, etc. In most water utilities it is a small component which is very often substantially overestimated. **It does NOT include water supplied to neighboring utilities (water exported) which is unmetered and unbilled – an unlikely case.** This component has many sub-components of water use which are often tedious to identify and quantify. Because of this, and the fact that it is usually a small portion of the water supplied, it is recommended that the auditor apply the default value, which is 1.25% of the Water Supplied volume. Select the default percentage to enter this value. If the water utility has carefully audited the unbilled, unmetered activities occurring in the system, and has well validated data that gives a value substantially higher or lower than the default volume, then the auditor should enter their own volume. However the default approach is recommended for most water utilities. Note that a value of zero is not permitted, since all water utilities have some volume of water in this component occurring in their system.
Units and Conversions	The user may develop an audit based on one of three unit selections: 1) Million Gallons (US) 2) Megalitres (Thousand Cubic Metres) 3) Acre-feet Once this selection has been made in the instructions sheet, all calculations are made on the basis of the chosen units. Should the user wish to make additional conversions, a unit converter is provided below (use drop down menus to select units from the yellow unit boxes): Enter Units: 1 | Convert From… Million Gallons (US) = **Converts to…..** 3.06888329 Acre-feet (conversion factor = 3.06888328973723)
Use of Option Buttons	 **NOTE:** For Unbilled Unmetered Consumption, Unauthorized Consumption and Systematic Data Handling Errors, a recommended default value can be applied by selecting the Percent option. The default values are based on fixed percentages of Water Supplied or Billed Authorized Consumption and are recommended for use in this audit unless the auditor has well validated data for their system. Default values are shown by purple cells, as shown in the example above. If a default value is selected, the user does not need to grade the item; a grading value of 5 is automatically applied (however, this grade will not be displayed).
Variable production cost (applied to Real Losses) Find	The cost to produce and supply the next unit of water (e.g., $/million gallons). This cost is determined by calculating the summed unit costs for ground and surface water treatment and all power used for pumping from the source to the customer. It may also include other miscellaneous unit costs that apply to the production of drinking water. It should also include the unit cost of bulk water purchased as an import if applicable. It is common to apply this unit cost to the volume of Real Losses. However, if water resources are strained and the ability to meet future drinking water demands is in question, then the water auditor can be justified in applying the Customer Retail Rate to the Real Loss volume, rather than applying the Variable Production Cost. The Free Water Audit Software applies the Variable Production costs to Real Losses by default. However, the auditor has the option on the Reporting Worksheet to select the Customer Retail Cost as the basis for the Real Loss cost evaluation if the auditor determines that this is warranted.
Volume from own sources Find	The volume of water withdrawn (abstracted) from water resources (rivers, lakes, streams, wells, etc) controlled by the water utility, and then treated for potable water distribution. Most water audits are compiled for utility retail water distribution systems, so this volume should reflect the amount of treated drinking water that entered the distribution system. Often the volume of water measured at the effluent of the treatment works is slightly less than the volume measured at the raw water source, since some of the water is used in the treatment process. Thus, it is useful if flows are metered at the effluent of the treatment works. If metering exists only at the raw water source, an adjustment for water used in the treatment process should be included to account for water consumed in treatment operations such as filter backwashing, basin flushing and cleaning, etc. If the audit is conducted for a wholesale water agency that sells untreated water, then this quantity reflects the measure of the raw water, typically metered at the source.

Item Name	Description
Volume from own sources: Master meter and supply error adjustment Find	An estimate or measure of the degree of inaccuracy that exists in the master (production) meters measuring the annual Volume from own Sources, and any error in the data trail that exists to collect, store and report the summary production data. This adjustment is a weighted average number that represents the collective error for all master meters for all days of the audit year and any errors identified in the data trail. Meter error can occur in different ways. A meter or meters may be inaccurate by under-registering flow (did not capture all the flow), or by over-registering flow (overstated the actual flow). Data error can occur due to data gaps caused by temporary outages of the meter or related instrumentation. All water utilities encounter some degree of inaccuracy in master meters and data errors in archival systems are common; thus a value of zero should not be entered. Enter a negative percentage or value for metered data under-registration; or, enter a positive percentage or value for metered data over-registration.
Water exported Find	The Water Exported volume is the bulk water conveyed and sold by the water utility to neighboring water systems that exists outside of their service area. Typically this water is metered at the custody transfer point of interconnection between the two water utilities. Usually the meter(s) are owned by the water utility that is selling the water: i.e. the exporter. If the water utility who is compiling the annual water audit sells bulk water in this manner, they are an exporter of water. Note: The Water Exported volume is sold to wholesale customers who are typically charged a wholesale rate that is different than retail rates charged to the retail customers existing within the service area. Many state regulatory agencies require that the Water Exported volume be reported to them as a quantity separate and distinct from the retail customer billed consumption. For these reasons - and others - the Water Exported volume is always quantified separately from Billed Authorized Consumption in the standard water audit. **Be certain not to "double-count" this quantity by including it in both the Water Exported box and the Billed Metered Consumption box of the water audit Reporting Worksheet. This volume should be included only in the Water Exported box.**
Water exported: Master meter and supply error adjustment Find	An estimate or measure of the volume in which the Water Exported volume is incorrect. This adjustment is a weighted average that represents the collective error for all of the metered and archived exported flow for all days of the audit year. Meter error can occur in different ways. A meter may be inaccurate by under-registering flow (did not capture all the flow), or by over-registering flow (overstated the actual flow). Error in the metered, archived data can also occur due to data gaps caused by temporary outages of the meter or related instrumentation. All water utilities encounter some degree of error in their metered data, particularly if meters are aged and infrequently tested. Occasional errors also occur in the archived data. Thus, a value of zero should not be entered. Enter a negative percentage or value for metered data under-registration; or enter a positive percentage or value for metered data over-registration. If regular meter accuracy testing is conducted on the meter(s) - which is usually conducted by the water utility selling the water - then the results of this testing can be used to help quantify the meter error adjustment. Corrections to data gaps or other errors found in the archived data should also be included as a portion of this meter error adjustment.
Water imported Find	The Water Imported volume is the bulk water purchased to become part of the Water Supplied volume. Typically this is water purchased from a neighboring water utility or regional water authority, and is metered at the custody transfer point of interconnection between the two water utilities. Usually the meter(s) are owned by the water supplier selling the water to the utility conducting the water audit. The water supplier selling the bulk water usually charges the receiving utility based upon a wholesale water rate.
Water imported: Master meter and supply error adjustment Find	An estimate or measure of the volume in which the Water Imported volume is incorrect. This adjustment is a weighted average that represents the collective error for all of the metered and archived imported flow for all days of the audit year. Meter error can occur in different ways. A meter may be inaccurate by under-registering flow (did not capture all the flow), or by over-registering flow (overstated the actual flow). Error in the metered, archived data can also occur due to data gaps caused by temporary outages of the meter or related instrumentation. All water utilities encounter some level of meter inaccuracy, particularly if meters are aged and infrequently tested. Occasional errors also occur in the archived metered data. Thus, a value of zero should not be entered. Enter a negative percentage or value for metered data under-registration; or, enter a positive percentage or value for metered data over-registration. If regular meter accuracy testing is conducted on the meter(s) - which is usually conducted by the water utility selling the water - then the results of this testing can be used to help quantify the meter error adjustment.
WATER LOSSES Find	= apparent losses + real losses Water Losses are the difference between Water Supplied and Authorized Consumption. Water losses can be considered as a total volume for the whole system, or for partial systems such as transmission systems, pressure zones or district metered areas (DMA); if one of these configurations are the basis of the water audit.

AWWA Free Water Audit Software:
Determining Water Loss Standing

WAS v5.0

American Water Works Association.
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Water Audit Report for: Montebello Land & Water Co. (CA1910091)
Reporting Year: 2019 7/2019 - 6/2020
Data Validity Score: **67**

Water Loss Control Planning Guide

	Water Audit Data Validity Level / Score				
Functional Focus Area	**Level I** (0-25)	**Level II** (26-50)	**Level III** (51-70)	**Level IV** (71-90)	**Level V** (91-100)
Audit Data Collection	Launch auditing and loss control team; address production metering deficiencies	Analyze business process for customer metering and billing functions and water supply operations. Identify data gaps.	Establish/revise policies and procedures for data collection	Refine data collection practices and establish as routine business process	Annual water audit is a reliable gauge of year-to-year water efficiency standing
Short-term loss control	Research information on leak detection programs. Begin flowcharting analysis of customer billing system	Conduct loss assessment investigations on a sample portion of the system: customer meter testing, leak survey, unauthorized consumption, etc.	Establish ongoing mechanisms for customer meter accuracy testing, active leakage control and infrastructure monitoring	Refine, enhance or expand ongoing programs based upon economic justification	Stay abreast of improvements in metering, meter reading, billing, leakage management and infrastructure rehabilitation
Long-term loss control		Begin to assess long-term needs requiring large expenditure: customer meter replacement, water main replacement program, new customer billing system or Automatic Meter Reading (AMR) system.	Begin to assemble economic business case for long-term needs based upon improved data becoming available through the water audit process.	Conduct detailed planning, budgeting and launch of comprehensive improvements for metering, billing or infrastructure management	Continue incremental improvements in short-term and long-term loss control interventions
Target-setting			Establish long-term apparent and real loss reduction goals (+10 year horizon)	Establish mid-range (5 year horizon) apparent and real loss reduction goals	Evaluate and refine loss control goals on a yearly basis
Benchmarking			Preliminary Comparisons - can begin to rely upon the Infrastructure Leakage Index (ILI) for performance comparisons for real losses (see below table)	Performance Benchmarking - ILI is meaningful in comparing real loss standing	Identify Best Practices/ Best in class - the ILI is very reliable as a real loss performance indicator for best in class service

For validity scores of 50 or below, the shaded blocks should not be focus areas until better data validity is achieved.

Once data have been entered into the Reporting Worksheet, the performance indicators are automatically calculated. How does a water utility operator know how well his or her system is performing? The AWWA Water Loss Control Committee provided the following table to assist water utilities is gauging an approximate Infrastructure Leakage Index (ILI) that is appropriate for their water system and local conditions. The lower the amount of leakage and real losses that exist in the system, then the lower the ILI value will be.

Note: this table offers an approximate guideline for leakage reduction target-setting. The best means of setting such targets include performing an economic assessment of various loss control methods. However, this table is useful if such an assessment is not possible.

General Guidelines for Setting a Target ILI (without doing a full economic analysis of leakage control options)

Target ILI Range	Financial Considerations	Operational Considerations	Water Resources Considerations
1.0 - 3.0	Water resources are costly to develop or purchase; ability to increase revenues via water rates is greatly limited because of regulation or low ratepayer affordability.	Operating with system leakage above this level would require expansion of existing infrastructure and/or additional water resources to meet the demand.	Available resources are greatly limited and are very difficult and/or environmentally unsound to develop.
>3.0 -5.0	Water resources can be developed or purchased at reasonable expense; periodic water rate increases can be feasibly imposed and are tolerated by the customer population.	Existing water supply infrastructure capability is sufficient to meet long-term demand as long as reasonable leakage management controls are in place.	Water resources are believed to be sufficient to meet long-term needs, but demand management interventions (leakage management, water conservation) are included in the long-term
>5.0 - 8.0	Cost to purchase or obtain/treat water is low, as are rates charged to customers.	Superior reliability, capacity and integrity of the water supply infrastructure make it relatively immune to supply shortages.	Water resources are plentiful, reliable, and easily extracted.
Greater than 8.0	Although operational and financial considerations may allow a long-term ILI greater than 8.0, such a level of leakage is not an effective utilization of water as a resource. Setting a target level greater than 8.0 - other than as an incremental goal to a smaller long-term target - is discouraged.		
Less than 1.0	If the calculated Infrastructure Leakage Index (ILI) value for your system is 1.0 or less, two possibilities exist. a) you are maintaining your leakage at low levels in a class with the top worldwide performers in leakage control. b) A portion of your data may be flawed, causing your losses to be greatly understated. This is likely if you calculate a low ILI value but do not employ extensive leakage control practices in your operations. In such cases it is beneficial to validate the data by performing field measurements to confirm the accuracy of production and customer meters, or to identify any other potential sources of error in the data.		

Appendix 10-1
City and County Notifications

MONTEBELLO LAND & WATER COMPANY

344 E. MADISON AVE. • P.O. BOX 579 • MONTEBELLO, CA 90640

DENNIS P. BURKE
President

BRUCE JUGAN
Vice President

ZEKI KAYIRAN
Treasurer

NORMAN AKASHI
Secretary

DAVID R. REGO
Director

K0REY S. BRADBURY
General Manager

Telephone
(323) 722-8654

Fax
(323) 722-5529

February 16, 2021

To: Interested Parties

SUBJECT: Notice of the Preparation of Montebello Land and Water Company's 2020 Urban Water Management Plan

Pursuant to Section 10621 of the California Water Code, Montebello Land and Water Company (ML&WC) is currently preparing an update to its Urban Water Management Plan (UWMP) in compliance with the California Urban Water Management Planning Act. The current UWMP was completed in 2016. An update is required every five years. ML&WC welcomes your agency's assistance and involvement as we update our UWMP.

The UWMP documents ML&WC's planning efforts to ensure adequate water supply to meet existing and future water demands under a range of water supply conditions, including water shortages. Draft portions of the UWMP will be made available to interested parties as they are developed and requested.

For more information, please feel free to contact Korey Bradbury, General Manager at (323) 722-8654 (korey@mtblw.com).

Sincerely,

Korey Bradbury
General Manager

Appendix 10-2
Notice of Public Hearing

Whittier Daily News
Affiliated with SGV Newspaper Group
605 E. Huntington Dr., Suite 100
Monrovia, CA 91016
626-962-8811 ext. 40885

MONTEBELLO LAND AND WATER CO.
PO BOX 279 / 344 E. MADISON AVE.
MONTEBELLO, CA 90640

Account Number: 5276800

Ad Order Number: 0011469912

Customer's Reference / PO Number:

Publication: Whittier Daily News

Publication Dates: 06/29/2021, 07/06/2021

Total Amount: $680.00

Payment Amount: $680.00 *Payment Method:* Credit Card

Amount Due: $0.00

Invoice Text: To All Interested Parties:

NOTICE OF PREPARATION AND PUBLIC HEARING FOR THE MONTEBELLO LAND AND WATER COMPANY'S 2020 URB
WATER MANAGEMENT PLAN

The Montebello Land and Water Company (the "Company") is currently preparing an update to its Urban Water Management Plan ("Plan") in compliance with the California Urban Water Management Planning Act. The current Plan was completed in 2015. An update is required every five years. The Company welcomes the input and involvement of all interested parties as it updated its Plan.

The Plan describes the Company's planning efforts to ensure an adequate water supply to meet existing and future water demands under a range of water supply conditions, including water shortages. Draft portions of the Plan will be made available to appropriate water agencies including wholesale suppliers, water management agencies, and neighboring retail agencies as they are developed. The completed Draft 2020 Plan will be available for public review beginning June 29, 2021, on the Company's website at mtblw.com.

The Company will conduct a public hearing at the following time and place to receive comments on the Draft 2020 Plan:

Date: Tuesday, July 13, 2021
Time: 9:00 a.m.
Location: Please visit the draft document at mtblw.com for zoom information.

All interested persons are invited to attend the public hearing and provide comments regarding the Draft 2020 Plan. Oral statements will be heard, but for accuracy of the record, all important testimony should be submitted in writing.

For more information, please feel free to contact Korey Bradbury, General Manager at (323) 722-8654 (korey@mtblw.com).
Pub: June 29 & July 6, 2021 Whittier Daily News Ad#1469912

Whittier Daily News
Affiliated with SGV Newspaper Group
605 E. Huntington Dr., Suite 100
Monrovia, CA 91016
626-962-8811 ext. 40885

(Space below for use of County Clerk Only)

5276800

MONTEBELLO LAND AND WATER CO.
PO BOX 279 / 344 E. MADISON AVE.
MONTEBELLO, CA 90640

Legal No. **0011469912**

PROOF OF PUBLICATION
(2015.5 C.C.P.)

STATE OF CALIFORNIA
County of Los Angeles

I am a citizen of the United States, and a resident of the county aforesaid. I am over the age of eighteen years and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of WHITTIER DAILY NEWS, a newspaper of general circulation for the City of Whittier, by the Superior Court of the County of Los Angles, State of California, on the date of October 10, 1960, Case Number 369393. The notice, of which the annexed is a true printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

06/29/2021, 07/06/2021

I declare under the penalty of perjury that the foregoing is true and correct.

Executed at Monrovia, LA Co. California
On this 20th day of July, 2021.

Evangelina Almeida

Signature

To All Interested Parties:

NOTICE OF PREPARATION AND PUBLIC HEARING FOR THE MONTEBELLO LAND AND WATER COMPANY'S 2020 URBAN WATER MANAGEMENT PLAN

The Montebello Land and Water Company (the "Company") is currently preparing an update to its Urban Water Management Plan ("Plan") in compliance with the California Urban Water Management Planning Act. The current Plan was completed in 2015. An update is required every five years. The Company welcomes the input and involvement of all interested parties as it updated its Plan.

The Plan describes the Company's planning efforts to ensure an adequate water supply to meet existing and future water demands under a range of water supply conditions, including water shortages. Draft portions of the Plan will be made available to appropriate water agencies including wholesale suppliers, water management agencies, and neighboring retail agencies as they are developed. The completed Draft 2020 Plan will be available for public review beginning June 29, 2021, on the Company's website at mtblw.com.

The Company will conduct a public hearing at the following time and place to receive comments on the Draft 2020 Plan:

Date:	Tuesday, July 13, 2021
Time:	9:00 a.m.
Location:	Please visit the draft document at mtblw.com for zoom information.

All interested persons are invited to attend the public hearing and provide comments regarding the Draft 2020 Plan. Oral statements will be heard, but for accuracy of the record, all important testimony should be submitted in writing.

For more information, please feel free to contact Korey Bradbury, General Manager at (323) 722-8654 (korey@mtblw.com).

Pub: June 29 & July 6, 2021 Whittier Daily News Ad#1469912

Whittier Daily News
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MONTEBELLO LAND AND WATER CO.
PO BOX 279 / 344 E. MADISON AVE.
MONTEBELLO, CA 90640

Account Number: 5276800

Ad Order Number: 0011478357

Customer's Reference / PO Number:

Publication: Whittier Daily News

Publication Dates: 07/29/2021, 08/03/2021

Total Amount: $608.00

Payment Amount: $608.00 *Payment Method:* Credit Card

Amount Due: $0.00

Invoice Text: To All Interested Parties:

NOTICE OF PREPARATION AND PUBLIC HEARING FOR THE MONTEBELLO LAND AND WATER COMPANY'S 2020 WATER SHORTAGE CONTINGENCY PLAN

The Montebello Land and Water Company (the "Company") is currently preparing an update to its Water Shortage Contingency Plan ("Plan") in compliance with the California Urban Water Management Planning Act. The current Plan was completed in 2015. An update is required every five years. The Company welcomes the input and involvement of all interested parties as it updated its Plan.

The Plan describes the Company's planning efforts to ensure an adequate water supply to meet existing and future water demands under a range of water supply conditions, including water shortages. Draft portions of the Plan will be made available to appropriate water agencies including wholesale suppliers, water management agencies, and neighboring retail agencies as they are developed. The completed Draft 2020 Plan will be available for public review beginning June 22, 2021, on the Company's website at mtblw.com.

The Company will conduct a public hearing at the following time and place to receive comments on the Draft 2020 Plan:

All interested persons are invited to attend the public hearing and provide comments regarding the Draft 2020 Plan. Oral statements will be heard, but for accuracy of the record, all important testimony should be submitted in writing.
For more information, please feel free to contact Korey Bradbury, General Manager at (323) 722-8654 (korey@mtblw.com).
Pub: July 29 & Aug 3, 2021 Whittier Daily News Ad#11478357

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MONTEBELLO LAND AND WATER CO.
PO BOX 279 / 344 E. MADISON AVE.
MONTEBELLO, CA 90640

Legal No. **0011478357**

PROOF OF PUBLICATION
(2015.5 C.C.P.)

STATE OF CALIFORNIA
County of Los Angeles

I am a citizen of the United States, and a resident of the county aforesaid. I am over the age of eighteen years and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of WHITTIER DAILY NEWS, a newspaper of general circulation for the City of Whittier, by the Superior Court of the County of Los Angles, State of California, on the date of October 10, 1960, Case Number 369393. The notice, of which the annexed is a true printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

07/29/2021, 08/03/2021

I declare under the penalty of perjury that the foregoing is true and correct.

Executed at Monrovia, LA Co. California
On this 10th day of August, 2021.

Evangelina Almeida

Signature

To All Interested Parties:

NOTICE OF PREPARATION AND PUBLIC HEARING FOR THE MONTEBELLO LAND AND WATER COMPANY'S 2020 WATER SHORTAGE CONTINGENCY PLAN

The Montebello Land and Water Company (the "Company") is currently preparing an update to its Water Shortage Contingency Plan ("Plan") in compliance with the California Urban Water Management Planning Act. The current Plan was completed in 2015. An update is required every five years. The Company welcomes the input and involvement of all interested parties as it updated its Plan.

The Plan describes the Company's planning efforts to ensure an adequate water supply to meet existing and future water demands under a range of water supply conditions, including water shortages. Draft portions of the Plan will be made available to appropriate water agencies including wholesale suppliers, water management agencies, and neighboring retail agencies as they are developed. The completed Draft 2020 Plan will be available for public review beginning June 22, 2021, on the Company's website at mtblw.com.

The Company will conduct a public hearing at the following time and place to receive comments on the Draft 2020 Plan:

Date:	*Tuesday, August 10, 2021*
Time:	*9:00 a.m.*
Location:	*Please call our office at (323) 722-8654 for zoom information*

All interested persons are invited to attend the public hearing and provide comments regarding the Draft 2020 Plan. Oral statements will be heard, but for accuracy of the record, all important testimony should be submitted in writing.
For more information, please feel free to contact Korey Bradbury, General Manager at (323) 722-8654 (korey@mtblw.com).
Pub: July 29 & Aug 3, 2021 Whittier Daily News Ad #11478357

Appendix 10-3
Resolutions of Adoption of 2020 UWMP and WSCP

MONTEBELLO LAND AND WATER COMPANY

CERTIFICATE OF BOARD RESOLUTIONS RE APPROVAL OF 2020 URBAN WATER MANAGEMENT PLAN AND 2020 WATER SHORTAGE CONTINGENCY PLAN

The undersigned Corporate Secretary of Montebello Land and Water Company, a California corporation (the "Company"), does hereby certify that the following are true and correct copies of Resolutions unanimously adopted at regular meetings of the Board of Directors at regular meetings of the Company held in the City of Montebello, in Los Angeles County, State of California on the dates specified below and that these Resolutions have not been revoked by any subsequent action of the Board of Directors or Shareholders of the Company, but are still in full force and effect:

RESOLVED: The Board finds that the 2020 Urban Water Management Plan (1) satisfies all applicable requirements, and (2) that a duly noticed public hearing has been conducted. The Company General Manager is directed to submit the 2020 Urban Water Management Plan to the California Department of Water Resources. (July 13, 2021)

RESOLVED: The Board finds that the 2020 Water Shortage Contingency Plan (1) satisfies all applicable requirements, and (2) that a duly noticed public hearing has been conducted. The Company General Manager is directed to submit the 2020 Water Shortage Contingency Plan to the California Department of Water Resources. (August 10, 2021)

Dated: August 10, 2021

MONTEBELLO LAND AND WATER COMPANY

David Rego
Secretary

MONTEBELLO LAND & WATER COMPANY

SINCE 1909



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