

San Diego County Water Authority

VS.

Metropolitan Water District of Southern California



Metropolitan Water District: 26 Member Agencies



City of
Anaheim



City of
Beverly Hills



City of
Burbank



City of
Compton



City of
Fullerton



City of
Glendale



City of
Long Beach



City of
Los Angeles



City of
Pasadena



City of
San Fernando



City of
San Marino



City of Santa Ana



City of
Santa Monica



City of
Torrance



Calleguas
Municipal
Water District



Central Basin
Municipal
Water District



Eastern
Municipal
Water District



Foothill
Municipal
Water District



Inland Empire
Utilities
Agency



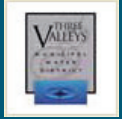
Las Virgenes
Municipal
Water District



Municipal Water
District of
Orange County



San Diego
County
Water Authority



Three Valleys
Municipal
Water District



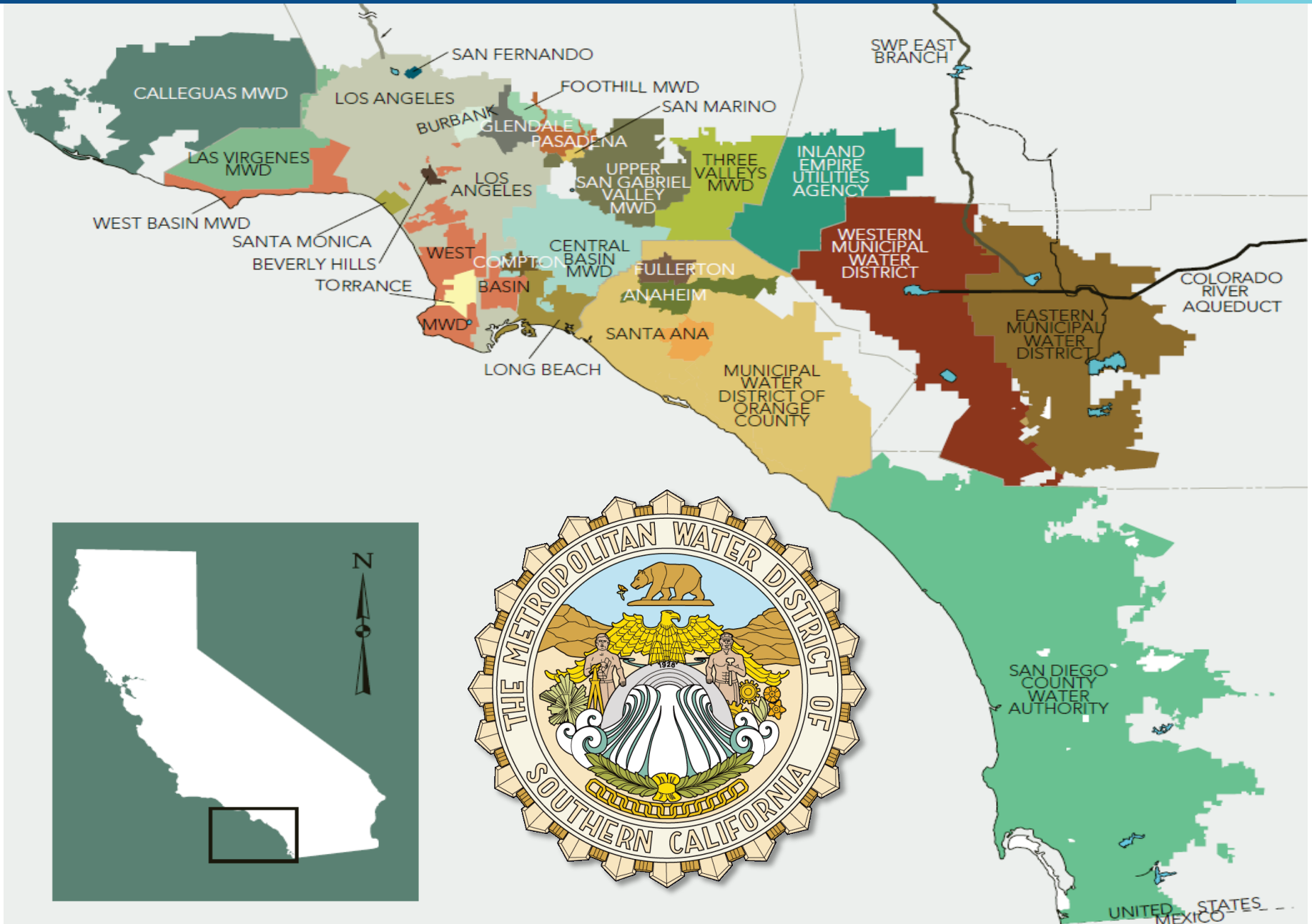
Upper San Gabriel
Municipal Water
District



West Basin
Municipal
Water District

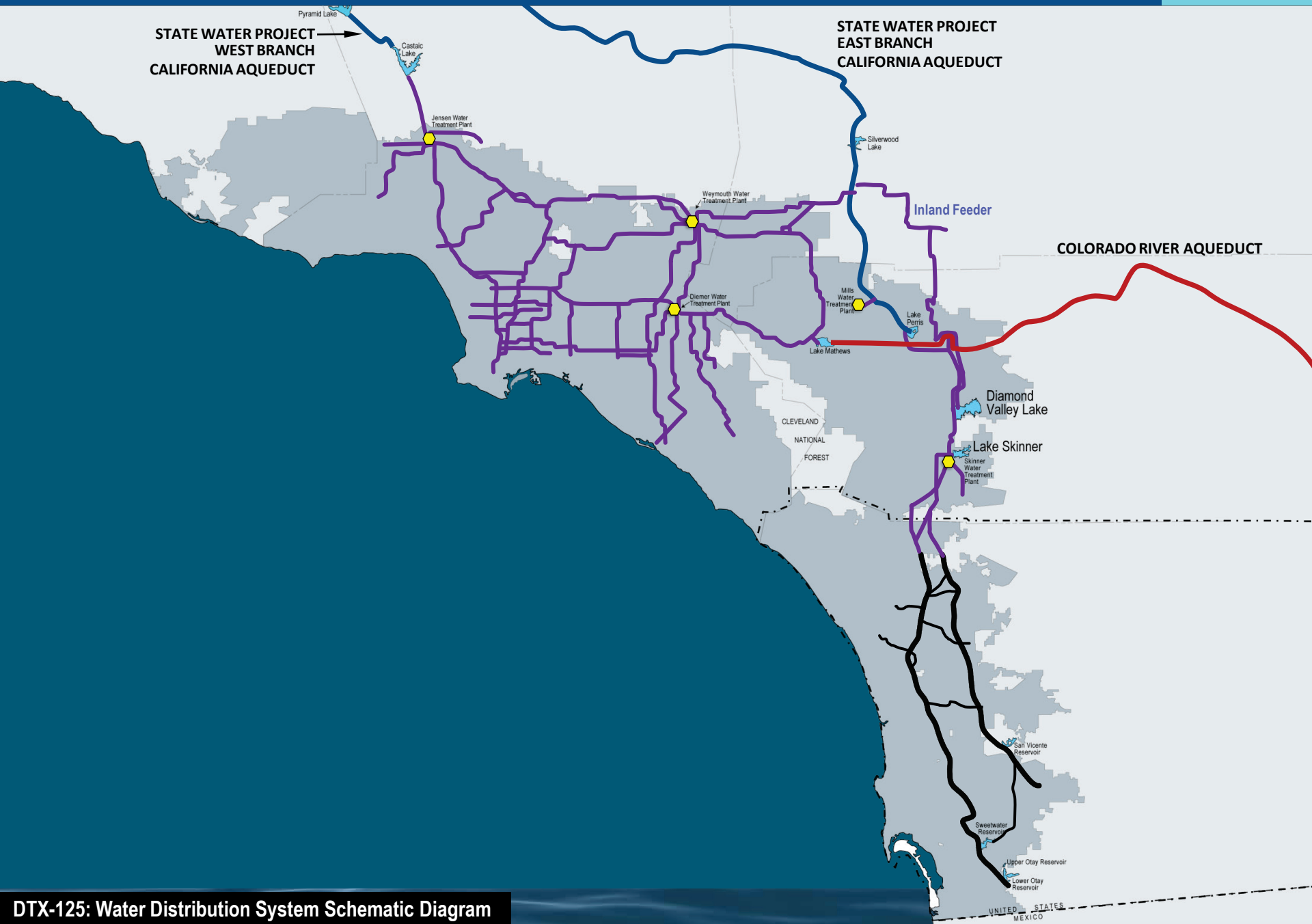


Western Municipal
Water District of
Riverside County



MWD's Two Water Sources for Member Agency Deliveries

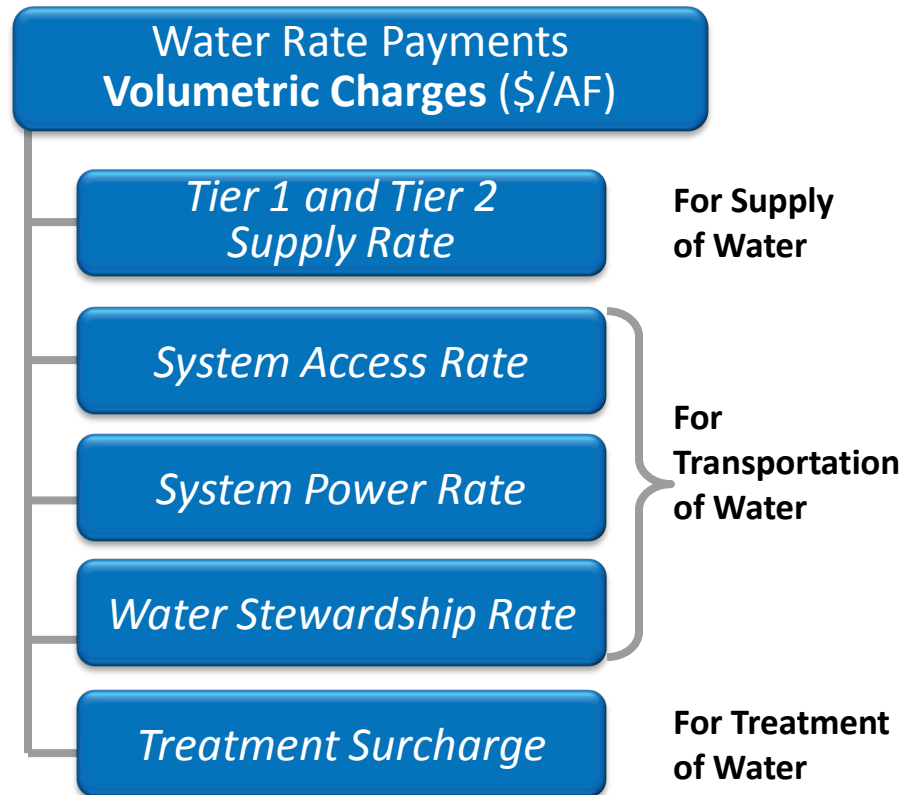




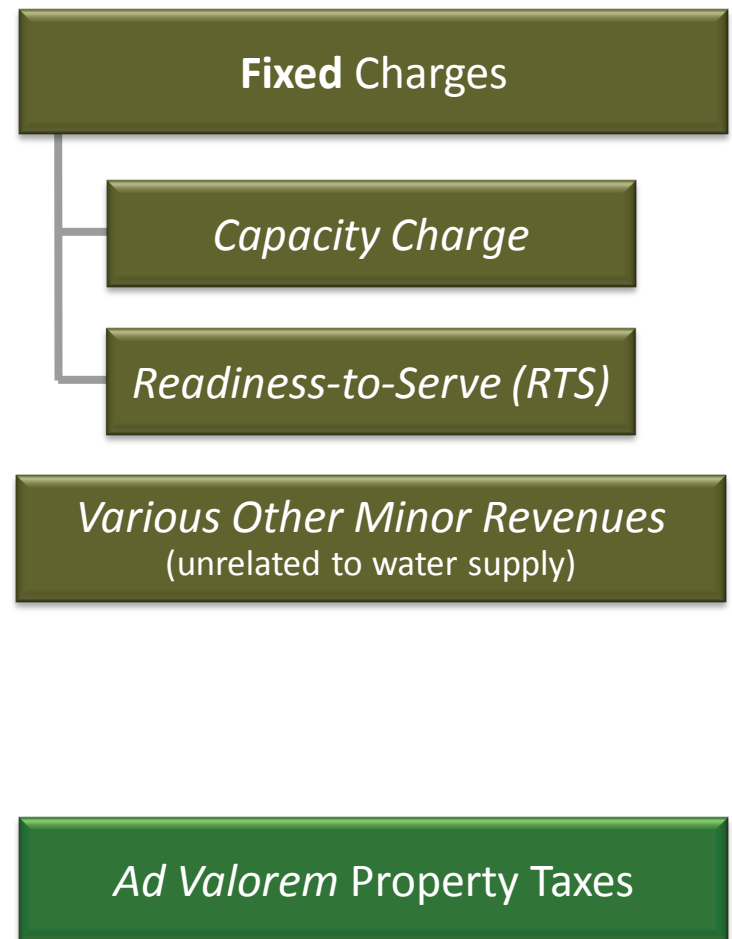
DTX-125: Water Distribution System Schematic Diagram

Sources of Revenue

Water Rates



Charges and Other Revenues



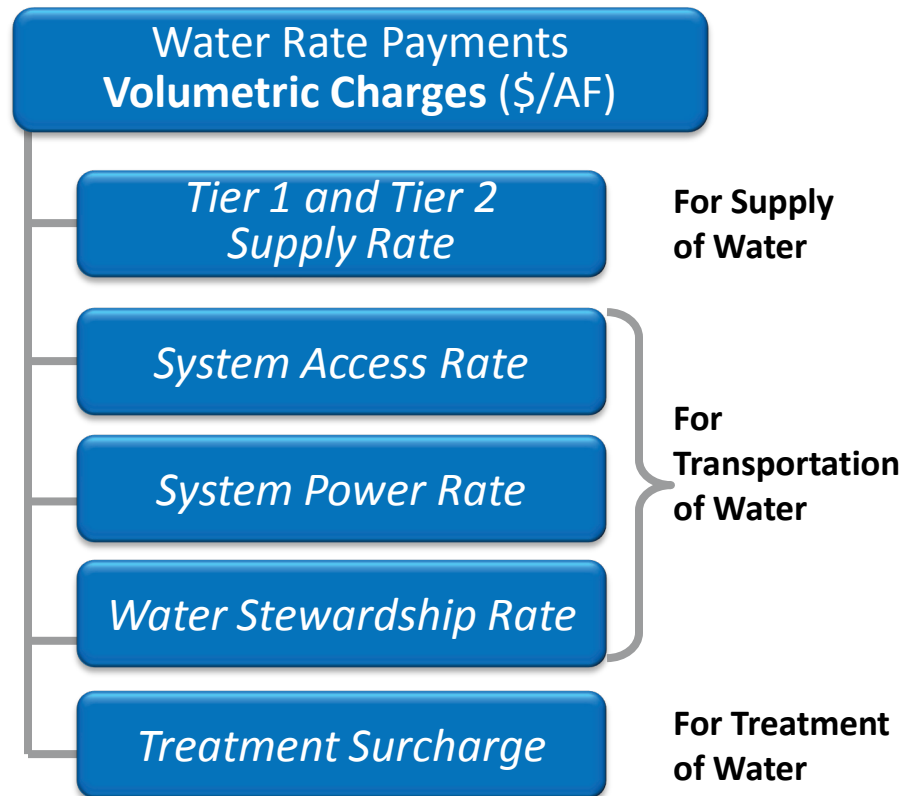
\$/AF = Dollars per acre-foot of water

One Acre-foot = 325,851 gallons

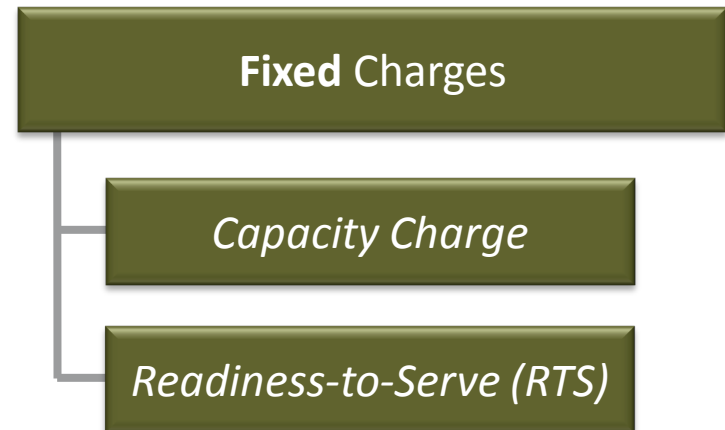
One Acre-foot of water is amount used by two average households per year

Rate Structure

Water Rates



Charges



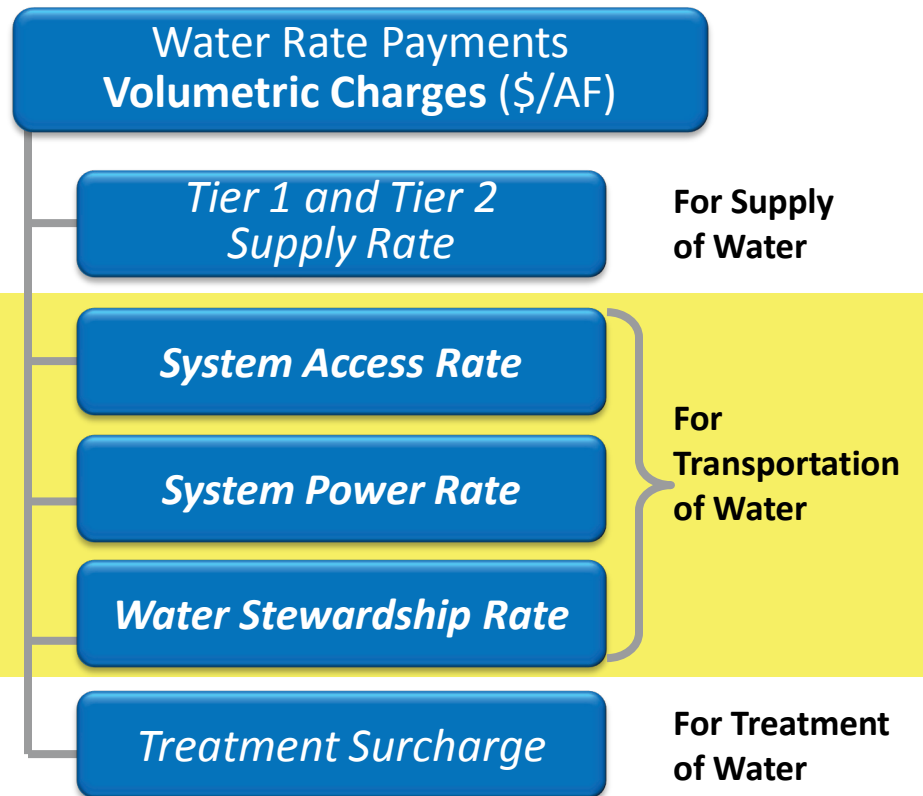
\$/AF = Dollars per acre-foot of water

One Acre-foot = 325,851 gallons

One Acre-foot of water is amount used by two average households per year

Rate Components At Issue

Water Rates



\$/AF = Dollars per acre-foot of water

One Acre-foot = 325,851 gallons

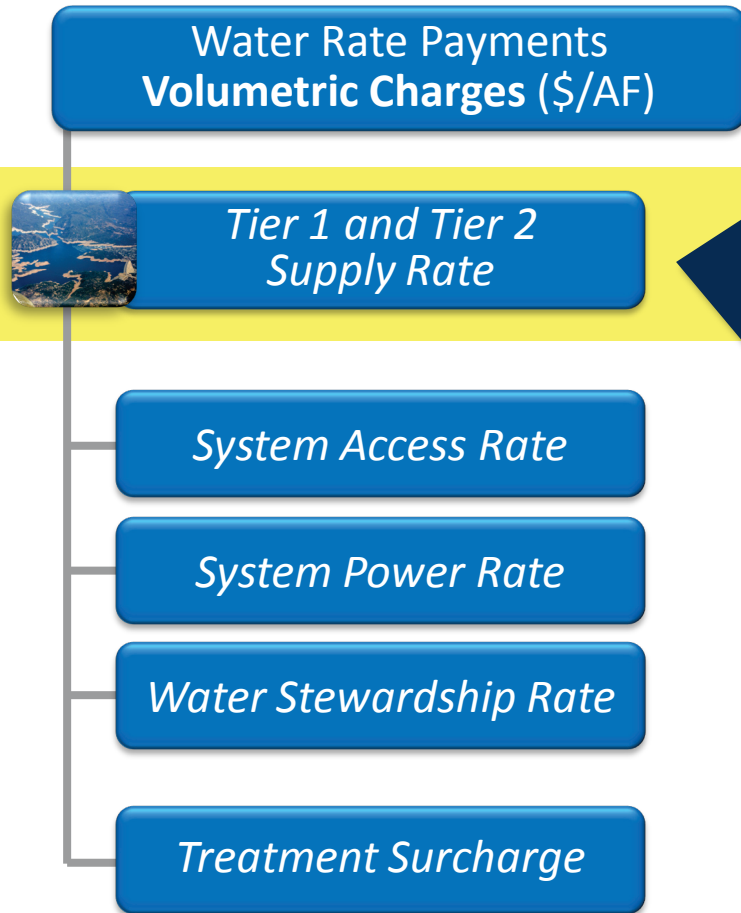
One Acre-foot of water is amount used by two average households per year

The Bundled Rate Before January 1, 2003

Unbundled Rate Components By Rate Design Element:

	Current Rate Structure (Effective January 1, 2002)	New Rate Structure (Effective January 1, 2003)
Tier 1 Supply Rate (\$/AF)	N/A	\$73
Tier 2 Supply Rate (\$/AF)	N/A	\$154
System Access Rate (\$/AF)	N/A	\$141
System Power Rate (\$/AF)	N/A	\$89
Water Stewardship Rate (\$/AF)	N/A	\$23
Full Service Untreated Water Rate (\$/AF)	\$349	N/A
Interim Agricultural Water Program (\$/AF)	\$236	\$236
Interim Agricultural Water Program Treated (\$/AF)	\$294	\$294
Treatment Surcharge (\$/AF)	\$82	\$82
Readiness-to-Serve Charge (\$M)	\$80.0	\$80.0
Capacity Reservation Charge (\$/cfs)	N/A	\$6,100
Peaking Surcharge (\$/cfs)	N/A	\$18,300
Connection Maintenance Charge (\$M)	\$2.9	N/A

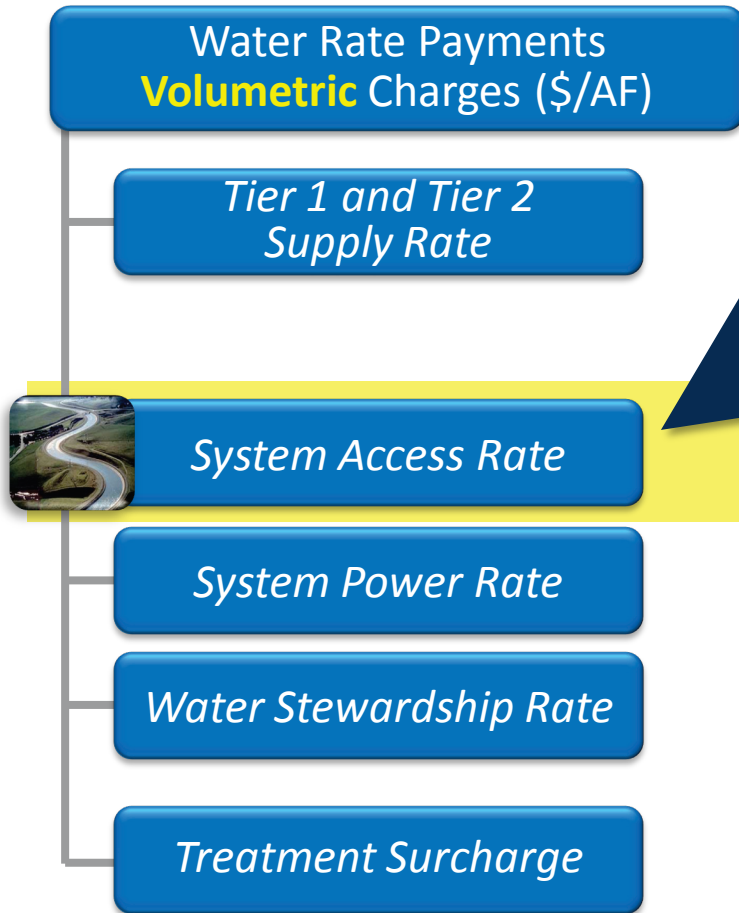
One Acre-foot of water is amount used by two average households per year



Supply Rates Recover:

- Costs for SWP and CRA facilities and programs that relate to **maintaining and developing supplies** to meet the Member Agencies' demands
- Capital financing, operating, maintenance and overhead costs for drought storage in MWD's reservoirs
 - Drought storage provides reliable supplies by carrying over surplus supplies from periods of above normal precipitation and snow pack to drought periods when supplies decrease

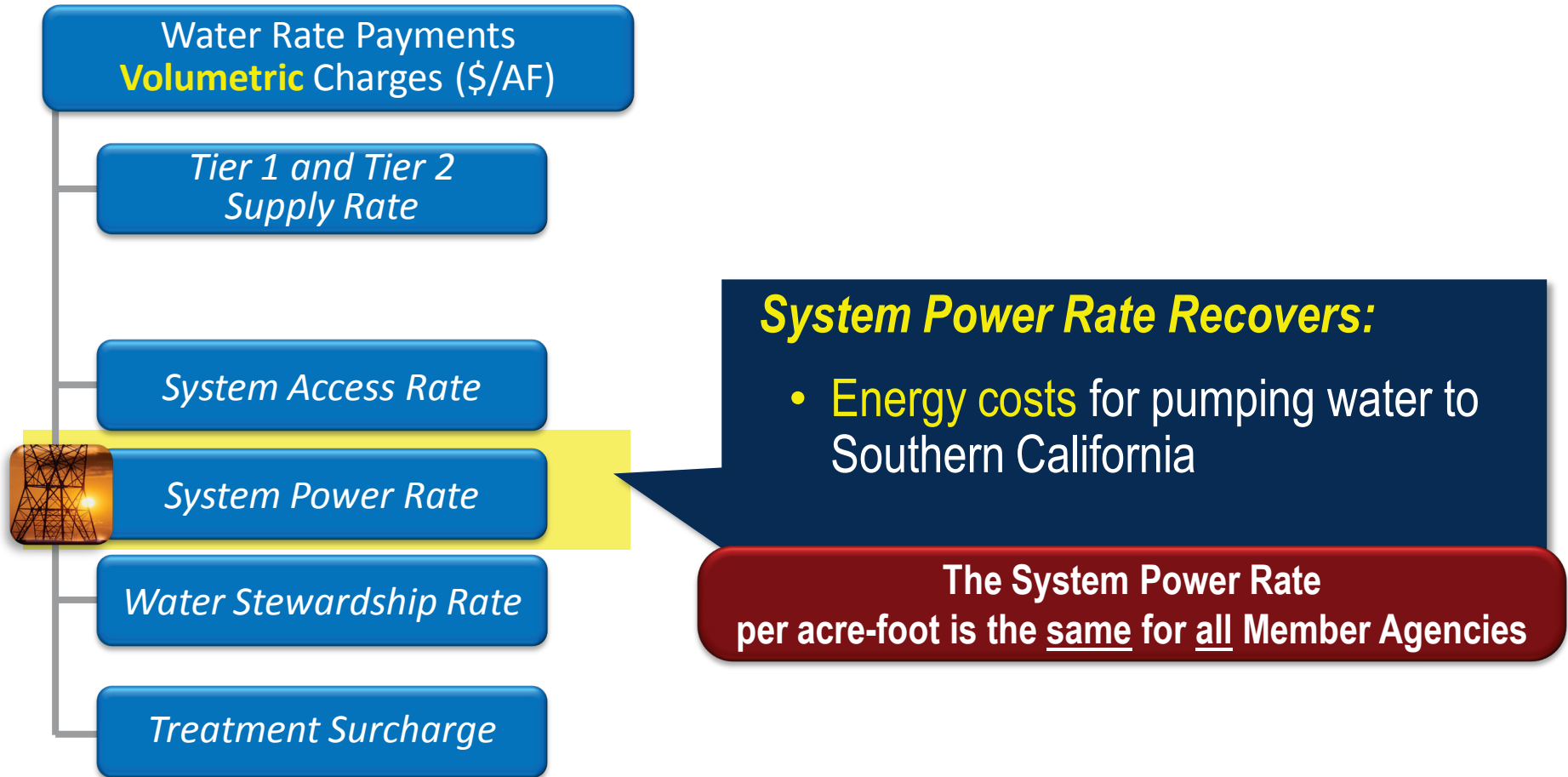
Tier 1, Tier 2 Supply Rates per acre-foot are the same for all Member Agencies

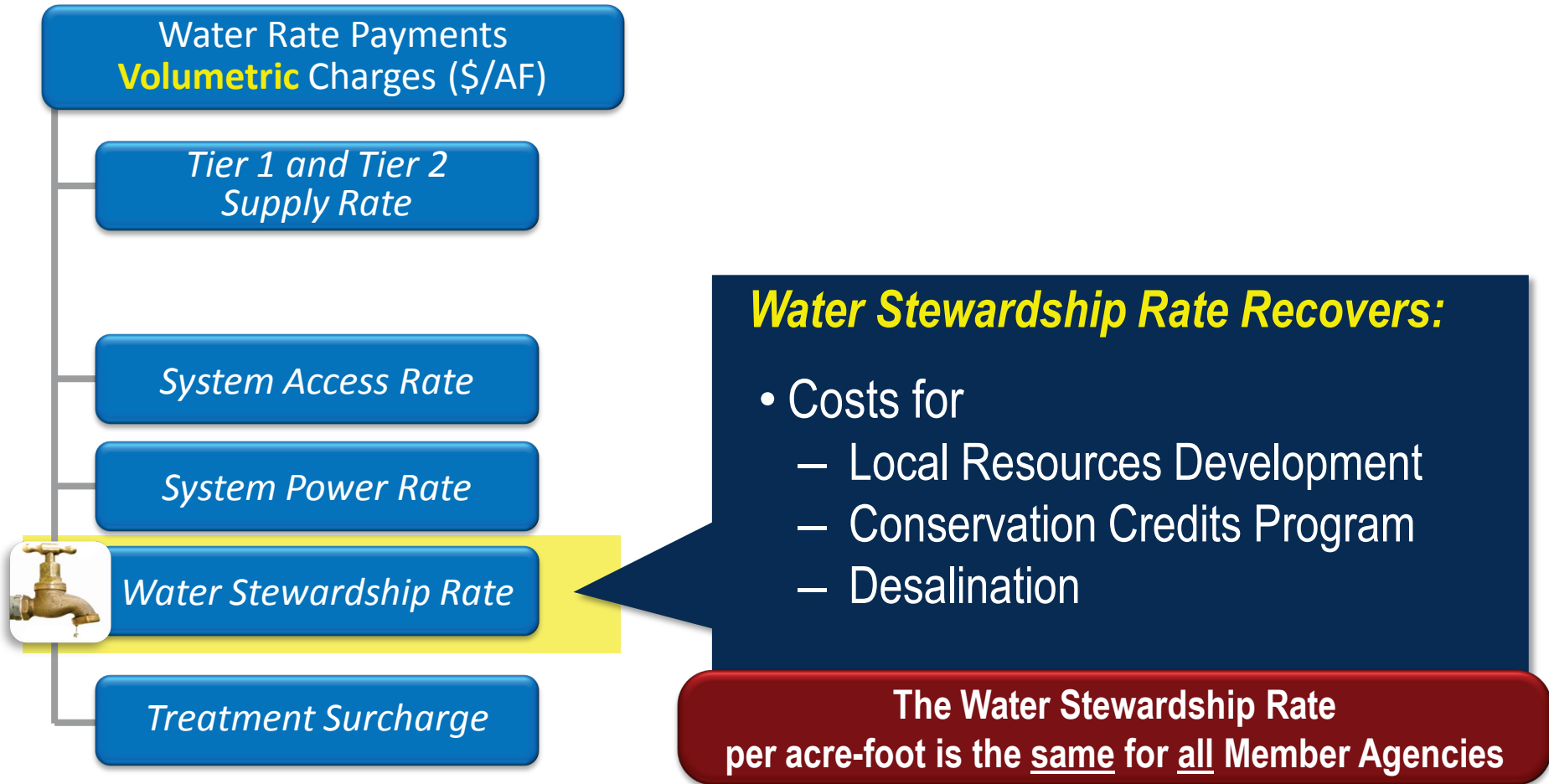


System Access Rate Recovers:

- Most of the capital, and all of the operations, maintenance and overhead costs for **the transportation facilities in the SWP and CRA and MWD distribution system**, except power
- Regulatory storage costs
 - This storage provides operational flexibility in meeting peak demands, essentially increasing the physical distribution capacity

The System Access Rate per acre-foot is the same for all Member Agencies





MWD
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

BOARD
ACTION

- Board of Directors
Budget, Finance and Investment Committee

March 12, 2002 Board Meeting

9-1

- Board of Directors
Budget, Finance and Investment Committee

March 12, 2002 Board Meeting

- c. **System Access Rate.** It is recommended that the System Access Rate be set at \$141/AF. The System Access Rate recovers a portion of the costs associated with the conveyance and distribution system, including capital, operating and maintenance costs. All users (including member agencies and third-party wheeling entities) of the Metropolitan system will pay the System Access Rate.
- d. **Water Stewardship Rate.** It is recommended that the Water Stewardship Rate be set at \$23/AF. The Water Stewardship Rate will be charged on a dollar-per-acre-foot basis to support Metropolitan's financial commitment to conservation, water recycling, groundwater recovery and other water management programs approved by the Board. The Water Stewardship Rate will be charged for every acre-foot of water conveyed by Metropolitan.
- e. **System Power Rate.** It is recommended that the System Power Rate be set at \$89/AF. The System Power Rate will be charged on a dollar per acre-foot basis to recover the cost of power necessary to pump water from the State Water Project and Colorado River through the conveyance and distribution system. The System Power Rate will be charged for all Metropolitan supplies. Entities wheeling water will continue to pay the actual cost of power to convey water on the State Water Project, the Colorado River Aqueduct or the Metropolitan distribution system, whichever is applicable.

coming fiscal year is shown in the following table.

MWDRECORD006294

1998

1999

2000

2001

2002

2003

The Unbundled Rates

March 12, 2002: MWD's Board defined the rate for **Wheeling Service** to include the System Access Rate, Water Stewardship Rate, cost for power, and administration fee

§ 4405. Wheeling Service.

(a) Subject to the General Manager's determination of available system capacity, Metropolitan will offer wheeling service. The determination whether there is unused capacity in Metropolitan's conveyance system, shall be made by the General Manager on a case-by-case basis in response to particular requests for wheeling.

(b) The rates for wheeling service shall include the System Access Rate, Water Stewardship Rate and, for treated water, the Treatment Surcharge, as set forth in Section 4401. In addition, wheeling parties must pay for their own cost for power (if such power can be scheduled by the District) or pay the District for the actual cost (not system average) of power service utilized for delivery of the wheeled water. Further, wheeling parties shall be assessed an administration fee of not less than \$5,000 per transaction.

§ 4119. Wheeling Service.

"Wheeling Service" shall mean the use of Metropolitan's facilities, including its rights to use State Water Project facilities, to transport water not owned or controlled by Metropolitan to its member public agencies, in transactions entered into by Metropolitan for a period of up to one year.

1998

1999

2000

2001

2002

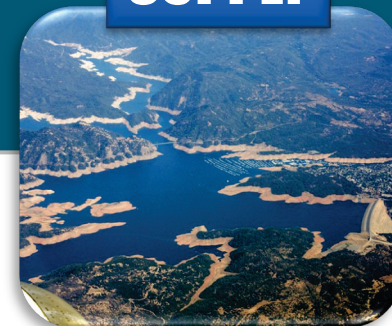
2003

MWD Reasonably Allocates State Water Project Transportation Costs to MWD's Transportation Rates

- 1. SWP Transportation Costs Are MWD Transportation Costs**
- 2. MWD Uses SWP Transportation Facilities to Transport non-SWP water and SWP water**
- 3. SWP-Owned and MWD-Owned Transportation Facilities Are Integrated**
- 4. Allocating SWP Transportation Costs to MWD's Transportation Rates is Consistent With Industry Guidance**
- 5. Exchange Water is a Blend of SWP and CRA Water**

Under its contract with the DWR for the State Water Project, MWD pays separate supply and transportation charges:

SUPPLY



The Metropolitan Water District of Southern California

C. PAYMENT PROVISIONS

22. Delta Water Charge.

(a) The payments to be made by each contractor for project water shall include an annual charge designated as the Delta Water Charge. This charge, together with the total revenues derived during the project repayment period from the sale or other disposal of electrical energy generated in connection with operation of project conservation facilities, shall return to the State during the project repayment period all costs of the project conservation facilities incurred during the project repayment period, including capital, operation, maintenance, power, and replacement costs, which are allocated to the purpose of water conservation in, above, and below the Delta pursuant to subdivision (e) of this article. Wherever reference is made, in connection with the computation or determination of the Delta Water Charge, to the costs of any facility or facilities included in the System, such reference shall be only to those costs of such facility or facilities which are reimbursable by the contractors as determined by the State.

Disclaimer:
State Water Project
since 1960.
Water Resources
the original
should direct

MWDRECORD000001

SWP - SUPPLY



Under its contract with the DWR for the State Water Project, MWD pays separate supply and transportation charges:

TRANSPORTATION

The Metropolitan Water District of Southern California

23. Transportation Charge

The payments to be made by each contractor entitled to delivery of project water from the project transportation facilities shall include an annual charge under the designation Transportation Charge. This charge shall return to the State during the project repayment period those costs of all project transportation facilities necessary to deliver project water to the contractor incurred during the project repayment period, including capital, operation, maintenance, power, and replacement costs, which are allocated to the contractor in accordance with the cost allocation principles and procedures hereinafter set forth. Wherever reference is made, in connection with the computation, determination, or payment of the Transportation Charge, to the costs of any facility or facilities included in the System, such reference shall be only to those costs of such facility or facilities which are reimbursable by the contractors as determined by the State. The Transportation Charge shall consist of a capital cost component; a minimum operation, maintenance, power, and replacement component; and a variable operation,

Disclaimer
State Water
since 1960
Water Reso
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(As of January 1, 2005)

MWDRECORD000001

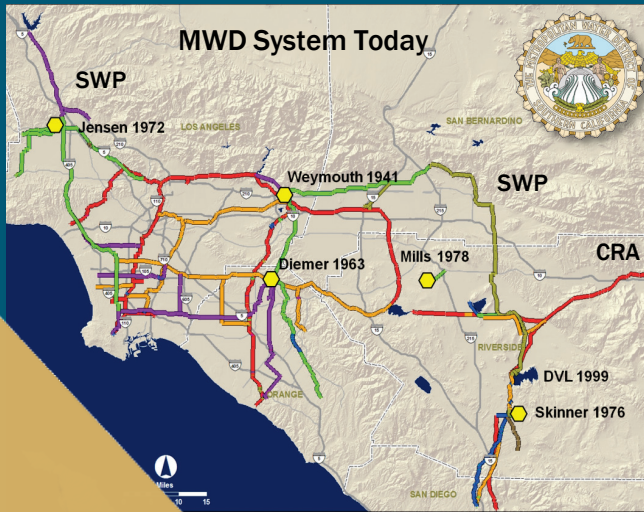
The SWP Transportation Charge covers expenses such as operating and repairing the California Aqueduct, a transportation facility necessary for water to be transported to MWD's Member Agencies





System Access Rate

Pays for Transportation Facilities To Make Water Available For Delivery



System Power Rate

Pays for Power for Pumping Water to Convey It For Delivery



Edmonston Pumping Plant "Big Lift"



Julian Hinds Pumping Plant

Under its contract with the DWR for the State Water Project, MWD pays separate supply and transportation charges:

STATE OF CALIFORNIA - CALIFORNIA NATURAL RESOURCES AGENCY

ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF WATER RESOURCES1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

July 1, 2010

Mr. Dowendra N. Upadhyay, Group Manager
Water Resource Management Group
The Metropolitan Water District of Southern California
Attn: David Reukema
Post Office Box 54153
Los Angeles, California 90054-0153

Dear Mr. Upadhyay:

This is the Statement of Charges referred to in Article 29 of your agency's contract for a water supply from the State Water Project and Articles 17 and 22 of your Devil Canyon-Castaic Contract, for payments which will be due in calendar

Account
charge
Invoice

Water System Revenue Bond Surcharge

\$37,410,810

Capital Cost Component

Delta Water Charge

\$27,403,966

Less Rate Management Rebate Under Monterey Amendment

0

27,403,966

Transportation Charge

62,917,905

Less Rate Management Rebate Under Monterey Amendment

0

62,917,905

Minimum Operation, Maintenance,
Power, and Replacement ComponentDelta Water Charge

51,964,417

Transportation Charge

99,233,417

Total for Invoice No. 11-014-T

\$278,930,515

STATE OF CALIFORNIA - CALIFORNIA NATURAL RESOURCES AGENCY

DEPARTMENT OF WATER RESOURCES1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

Invoice No. 11-014-T, Attachment 1:

DWR Contract Expenses Allocated to the System Access Rate and System Power Rate Are Reasonably Related to Transportation

Attachment 2



THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Date: April 5, 2010
To: Board of Directors
From: General Manager
General Counsel

Metropolitan allocates SWP costs among the various functions, including conveyance and aqueduct, supply and standby because the SWP provides different functions. More specifically:

- 1) Metropolitan uses the SWP as a conveyance facility. MWD uses the SWP to convey Project and Non-Project water for Metropolitan and its member agencies. For

This letter urges a multi-year rate structure and supports adoption of a three-year rate increase that achieves full cost of service in 2011 with rate increase between 2% and 5% for 2012 and 2013, to provide smoother implementation by sub-agencies and improved financial planning.

Option 3 in Board Letter 8-2 proposes adoption of a two-year revenue requirement and a two-year rate increase, with rate increases of 7.5% in January 2011 and 2012. These rates would recover Metropolitan's cost-of-service in 2011/12. Predicting revenue needs three years into the future is sufficiently uncertain that rates adopted for calendar year 2013 would be difficult to establish. We believe two-year budgeting and rate setting is worth exploring and we will discuss with the Board and the managers at upcoming meetings.

The letter also proposes rates based on lower sales assumption.

Sales assumptions used for the options in Board Letter 8-2 are for cash year sales of 1.93 million acre-feet in fiscal year 2010/11. This is based on expected demands under average weather conditions, and anticipates a Level 2 Water Supply Allocation in 2010/11.

MWDRECORD011305



Water Stewardship Rate



Local Resource Programs



Desalination



Conservation

Allocation of **Water Stewardship Rate** to Transportation Rather than Supply Is Reasonable

- 1. WSR Reduces Transportation Costs**
- 2. WSR Frees Up Capacity for Transportation and Facilitates Wheeling**
- 3. Placing WSR In Supply Would Permit Users That Only Use Transportation Services To Avoid These Costs**

THE ECONOMIC BENEFITS OF LOCAL WATER MANAGEMENT PROGRAMS

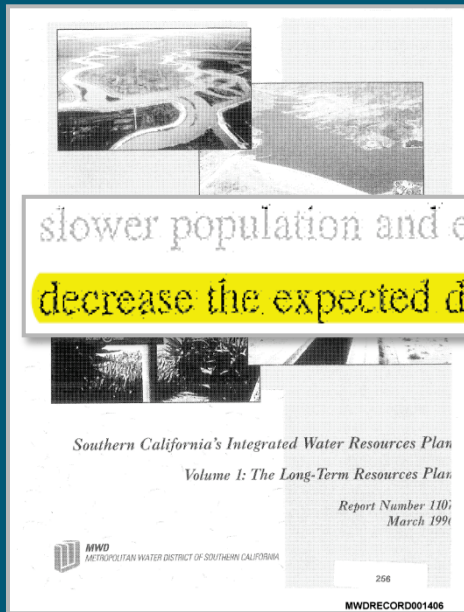
An Issue Paper Prepared by

Metropolitan's Infrastructure Requirements. One of the most significant cost impacts of the *Base Case* is Metropolitan's capital improvement program. In order to meet the reliability goal, water quality regulations, and the same storage requirements under the *Base Case*, Metropolitan would have to: (1) construct an additional 400,000 acre-foot reservoir; (2) build a 135 cfs regional ocean desalination plant; and (3) accelerate construction of regional treatment and distribution system facilities, such as the CPA and West Valley Projects, the Inland Feeder, the Perris Treatment plant, and the San Diego Pipeline No. 6. Metropolitan's 10 year capital improvement program (CIP) expenditures would total about \$6.5 billion (in escalated dollars), compared to the \$4.1 billion CIP identified in the IRP Preferred Resource Mix.

March 1996

MWD2010-00465818

MWD's March 1996 Integrated Water Resources Plan Demonstrates that the Economic Benefits of Local Water Management Programs Reduce Infrastructure Requirements



slower population and economic growth or greater than expected local supply development could decrease the expected demands on Metropolitan's system.

Deferment of Capital Infrastructure

that are not very sensitive to changes in demand. However, projects such as the Central Pool Augmentation Project and the San Diego Pipeline No. 6 were more sensitive to demands. Projects that are mainly driven by demand and that are not needed within the next several years represent opportunities for reassessment if demand conditions change. Projects that are supply driven can

Metropolitan Water District of Southern California
Rates and Charges



Water Stewardship Rate

(average use), demand (peak use), and standby (emergency and future growth) related costs.

5.3.2 Benefits

The WSR provides significant benefits including (1) support of a regional approach, and (2) providing a dedicated source of funding for the development of local resources.

Investments in conservation and recycling decrease the region's overall dependence on imported water supplies from environmentally sensitive areas like the Bay-Delta; increase the overall level of water supply reliability in Southern California; reduce and defer system capacity expansion costs; and create available capacity to be used to complete water transfers. Because conservation measures and local resource investments reduce the overall level of dependence on the imported water system, more capacity is available in existing facilities for a longer period of time. The capacity made available by conservation and recycling is open to all system users and can be used to complete water transfers. Similar to public benefit charges in the electric industry, the regional and statewide benefits of demand management programs are assessed to all users of the Metropolitan system, regardless of the source of imported water supply.

source of imported water supply.

By providing a dedicated source of funding for demand management the Board will be able to maintain and, as necessary, increase funding levels for demand management programs. The benefits of demand management programs are recognized by S.B. 60, which requires

16 65. Second, as discussed above, Metropolitan fails to fully account for the costs of
17 "dry-year peaking," that is, buying more water from Metropolitan in dry years or when local
18 water supplies are otherwise reduced or not available. The chief beneficiary of Metropolitan's
19 flawed approach is the City of Los Angeles and its Department of Water & Power (LADWP).
20 LADWP's water supply purchases from Metropolitan vary widely from year to year—they can
21 increase by as much as 200,000 acre-feet in a year, depending on the water supply conditions in
22 the Owens Valley that serves LADWP's own Los Angeles Aqueduct. When its own water
23 supplies are short, LADWP can simply pick up the telephone and order more water from
24 Metropolitan—a supply of water Metropolitan holds "on call" for LADWP at little cost to
25 LADWP during years it does not need more water, but at great cost to steady Metropolitan water
26 purchasers like the Water Authority. Metropolitan has not conducted a cost of service study that
27 would allow a proper allocation of the costs of this standby service to the member agencies that
28 receive the benefit of that service. The failure to properly allocate the costs of standby service

MWD Accounts for Peaking

- San Diego is referring to annual variations in Member Agency water deliveries
- MWD accounts for annual variations in Member Agency deliveries through:
 - Readiness-to-Serve Charge
 - Volumetric Rates
 - Tiered Supply Rates
- MWD also recovers capital costs of peaking due to variations in water deliveries within a year for its distribution system through its Capacity Charge
- Capacity Charge is allocated based on each Member Agency's peak summer day over prior three years

San Diego County Water Authority

Metropolitan Water District Cost of Service Rate Review

March 12, 2012



FCS GROUP

MWDRECORD2012_016156

Table 1. Evaluation of Water Deliveries

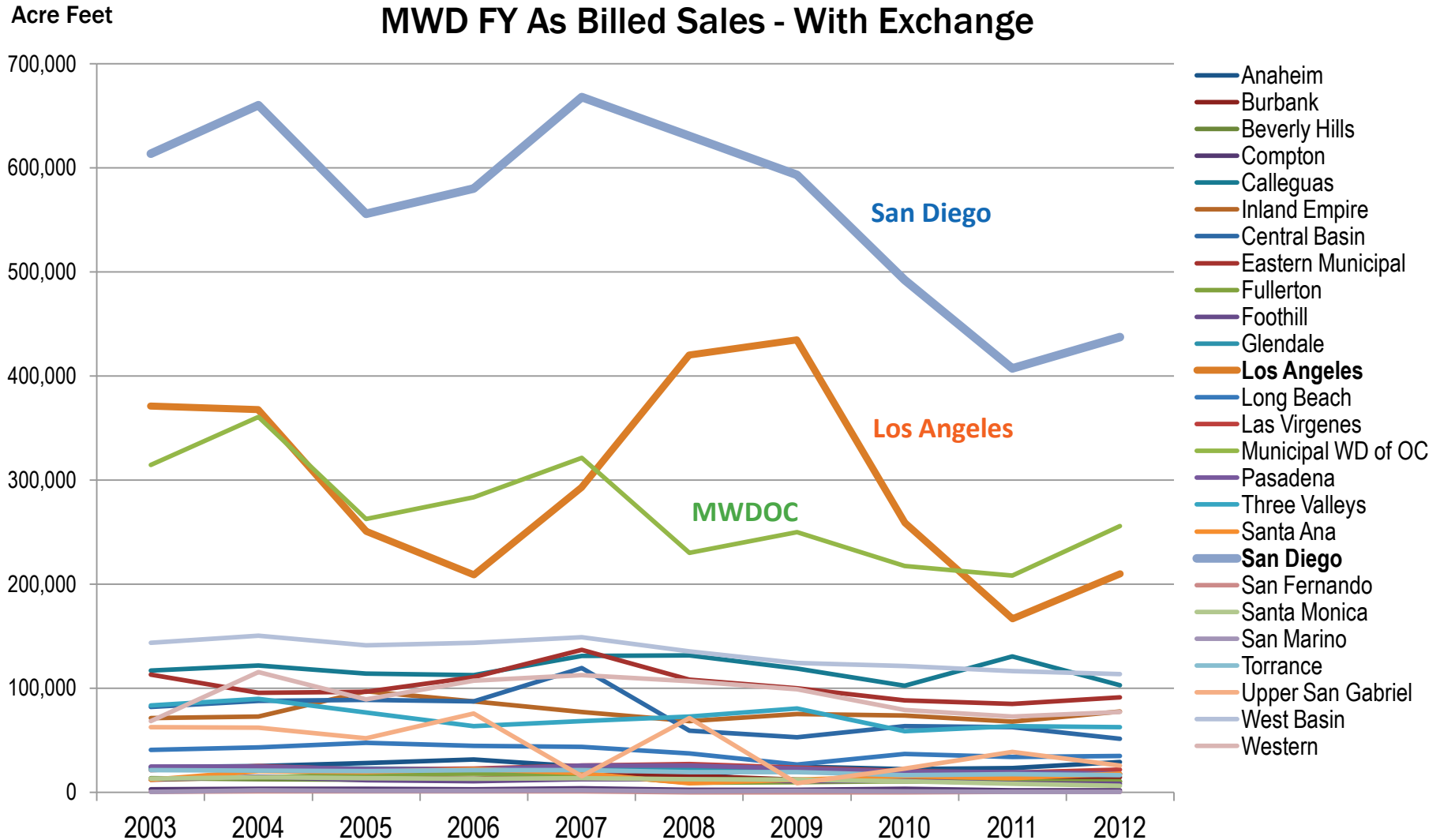
Agency	Average Annual Deliveries (AF) ¹	Peak Deliveries (AF)	Peak Increase (AF)	Peak/Ave Sales Ratio	Standard Deviation/Ave Sales ²
Anaheim	22,900	31,300	8,400	1.37	0.23
Beverly Hills	18,400	19,600	1,200	1.10	0.08
Burbank	10,000	11,000	2,600	1.10	0.13
Calleguas	13,000	14,600	13,000	1.11	0.07
Central Basin	84,900	119,200	34,300	1.40	0.26
Compton	2,000	2,000	900	1.30	0.18
Eastern	32,800	43,000	32,800	1.32	0.14
Foothill	2,800	2,800	2,800	1.32	0.11
Fullerton	12,500	17,800	5,300	1.42	0.32
Glendale	22,900	29,100	6,200	1.27	0.14
Inland Empire	76,500	96,800	20,300	1.27	0.12
Las Vegas	3,900	3,900	3,900	1.31	0.09
Long Beach	6,600	6,600	6,600	1.31	0.15
Los Angeles	102,200	133,400	102,200	1.31	0.23
MWDOC	77,500	77,500	77,500	1.27	0.16
Pasadena	2,200	2,200	2,200	1.27	0.08
San Diego	64,600	64,600	64,600	1.11	0.09
San Fernando	600	600	600	1.11	1.16
San Marino	600	600	600	1.11	0.46
Santa Ana	15,600	22,000	6,400	1.41	0.35
Santa Monica	12,700	14,400	1,700	1.13	0.08
Three Valleys	75,200	89,700	14,500	1.19	0.13
Torrance	20,300	22,800	2,500	1.12	0.08
Upper San Gabriel	44,000	75,600	31,600	1.72	0.55
West Basin	10,300	10,300	10,300	1.07	0.07
Western	22,800	22,800	22,800	1.07	0.19

¹ Values rounded to the nearest 100 AF

² Standard deviation of average annual deliveries (including sales and wheeling) divided by average sales

- MWD's largest customers (>100,000 AF per year, accounting for more than 70% of total water deliveries) all had a ratio between 1.07 and 1.32
- San Diego was 1.11
 - higher than West Basin's 1.07
 - same as Calleguas 1.11
 - lower than Los Angeles 1.31

All of MWD's 26 Member Agencies' Supplemental Water Requirements Change



April 6, 2010

Re: Independent Review of FY 2010/11 Cost of Service and Rate Setting Process

Dear Mr. Thomas:

Raftelis Financial Consultants, Inc. ("RFC") is pleased to submit this Independent Review Report to the Metropolitan Water District of Southern California ("MWD").

specifically Government Code Section 54999.7 (requiring a COS study every ten years), and consistent with § 133 and 134 of the Metropolitan Water District Act (requiring the levying of rates sufficient to cover costs) and §4301 of the District's Administrative Code

- 2) The 2010 COS and rate methodology is consistent with water industry best practices, and complies with COS and rate guidelines in the American Water Works Association's ("AWWA") Manual M-1, *Principles of Water Rates, Fees, and Charges*.

4) The 2010 COS is accurate and consistent with the 2001 COS.

In addition, as a part of the independent review process, RFC has identified the potential

Independent Review of
FY 2010/11 Cost of Service
and Rate Setting Process

Final Report
April 6, 2010

RFC
RAFTELIS FINANCIAL
CONSULTANTS, INC.

Very truly yours,
RAFTELIS FINANCIAL CONSULTANTS, INC.



George Raftelis, CPA
Chief Executive Officer

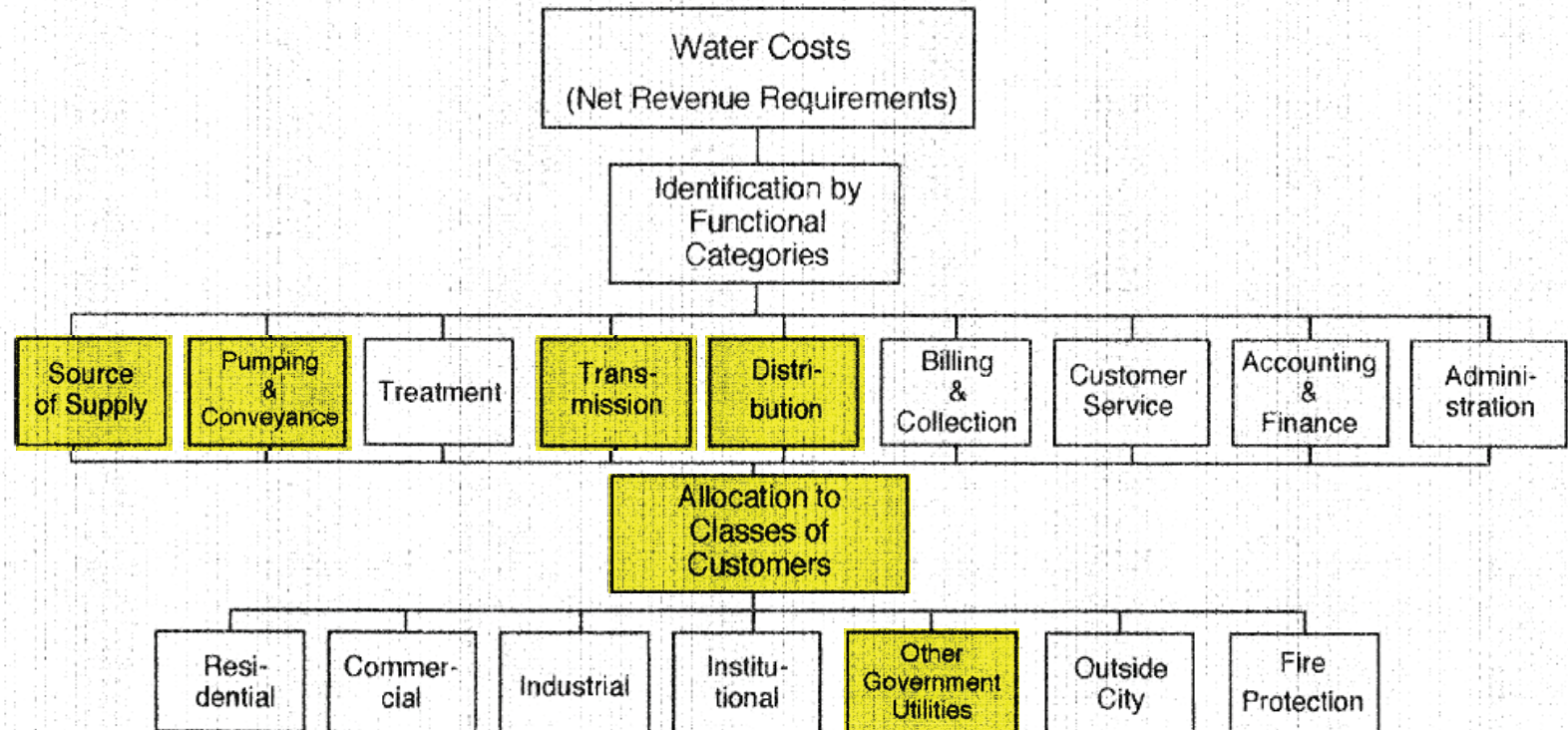
MWDRECORD2012_011309

MWDRECORD2012_011310

Raftelis Comprehensive Guide to Water and Wastewater Finance and Pricing

Comprehensive Guide

FIGURE 9.3. ALLOCATION OF WATER COSTS TO USER CLASSES



George A. Raftelis

AWWA Water Utility Accounting

Water Utility Accounting

Third Edition

68 WATER UTILITY ACCOUNTING

service and of customer's equipment that uses the service. Operation expenses also include the administrative and general expenses of a utility that have not been charged directly to a particular operating function and sales expenses in promoting the use of water service.

Maintenance expenses for a water utility include maintenance of the source of supply and pumping, water treatment facilities, transmission and distribution facilities, and general plant facilities. In general, expenses for repairing a water utility plant, or for replacing parts of structures and equipment of a size less than that of a "retirement unit" for the purpose of maintaining a utility plant, are called maintenance expenses. The state PUC or the utility generally will define retirement units. The cost of replacing significant parts of a water utility plant that prolong the useful life of the asset should not be charged to maintenance expense accounts but should be capitalized. See chapter II on plant investment.

The "operation expense" account and the "maintenance expense" account, which are summary accounts, are supported by subsidiary operation and maintenance expense accounts. Subsidiary operation and maintenance expense accounts are designed to show in detail a portion of the cost of rendering water service to customers.

Functional Classifications

The National Association of Regulatory Utility Commissioners (NARUC) classification of detailed operation and maintenance accounts reflects the fact that water utilities are enterprises subject to rate regulation. As illustrated by the chart of accounts presented in appendix A, detailed operation and maintenance expense accounts are provided for each functional division of the utility. The functional expense categories are as follows:

treatment. The NARUC Committee on Accounts, through its "Interpretations," has also defined accounting procedures in detail for the uniform system of accounts. This accounting guidance allows regulators to distinguish capital expenditures from operating and maintenance expenses and to separate utility activities from nonutility operations. In addition, utility management, shareholders, and creditors find the uniformity and consistency important in their use of the accounting information. Periodically, the uniform system of accounts is formally updated to reflect needed changes.

AWWA Manual M1

Principles of Water Rates, Fees, and Charges

AWWA MANUAL M1

Fifth Edition

Chapter 14

Fixed Versus Variable Charges

Cost-of-service water rate designs often include a fixed and a variable charge. The fixed charge in a rate design may take many forms, but this portion of a customer's bill will be the same, or fixed, for each bill regardless of the amount of water the customer uses. Variable charges, often referred to as *consumption charges*, are rates applied against the amount of water a customer uses. As described throughout this

Fixed and variable charges for cost recovery in a cost-of-service water rate analysis is not the same as recovering fixed and variable costs from an accounting standpoint.



American Water Works Association

use. These types of costs are referred to as *customer costs* and typically are costs that would be recovered through a fixed charge. These costs are usually recovered on a per customer basis or some other nonconsumption basis.

Utilities also incur costs associated with meeting average and above average consumption. As described in chapter 7 of this manual, these costs may be categorized as base and extra-capacity costs, or commodity and demand costs, depending on the allocation method used. Regardless of the allocation method selected, a utility incurs these costs because of the amount and pattern of its customers' water demands. Based on cost causation, these costs are most appropriately recovered through a consumption charge that varies with the customer's consumption.

Fixed and variable charges for cost recovery in a cost-of-service water rate analysis is not the same as recovering fixed and variable costs from an accounting

WEF Financing and Charges for Wastewater Systems

WEF PRESS



Financing and

Cost-of-service analysis provides a ratemaking benchmark. It is also founded on a methodological underpinning that **rates should reflect cost causation and not be determined by replication of the fixed and variable nature of costs from an accounting or budgeting perspective.**

Systems



WATER ENVIRONMENT FEDERATION

Introduction

3

Cost-of-service analysis provides a ratemaking benchmark. It is also founded on a methodological underpinning that rates should reflect cost causation and not be determined by replication of the fixed and variable nature of costs from an accounting or budgeting perspective.

HISTORICAL OVERVIEW

In the past, several efforts have been made to formulate and apply rational and consistent principles for allocating utility costs to develop a basis for fair wastewater service rates. Such principles were clearly stated for the first time in 1951 by a committee

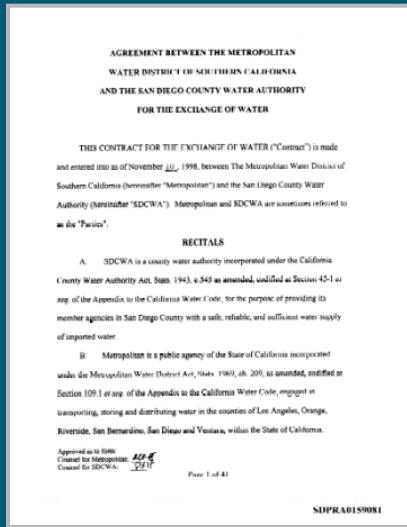
holds and sanitary and process wastewater discharges by industry. Both property owners and connected users could also benefit from the conveyance of stormwater and from the availability of wastewater service to properties at a future date.

The principle of fair sharing developed by the committee may, in retrospect, seem obvious; however, it was a genuine departure from common practice at the time. Even in 1973, when the principle was reaffirmed by a similar committee, over half of the wastewater systems in the United States obtained their entire revenue requirements from property taxes.

WATER POLLUTION CONTROL ACT, AS AMENDED

Wastewater utility rate setting is unique, in part, because for many utilities a substantial portion of their rate structure must comply with federal regulations. As part of the historic 1972 Water Pollution Control Act amendments, Congress funded a construction grants program to help utilities construct the necessary treatment facilities to meet the

January 1, 2003
unbundled rate
structure
becomes
effective

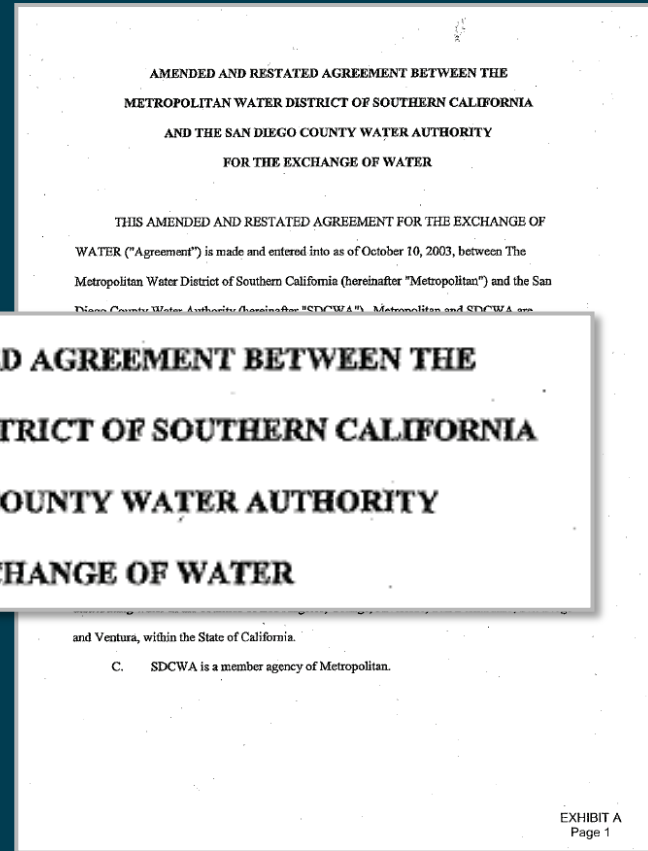


Nov. 10, 1998
Original
Exchange
Agreement

- Fixed price
- 30-year term



Oct. 10, 2003
Amended and Restated
Exchange Agreement
(requested by SDCWA)



1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013

DTX-028: 1998 MWD-SDCWA Exchange Agreement; DTX-051: 2003 Exchange Agreement

“Option 1”

Keep 1998 Exchange Agreement:

- Initial \$90 Per AF Price For Exchange Water
 - Increases By 1.55% Each Year For First 20 Years (\$97 Per AF As Of 2003)
- \$80 Per AF Price For Years 21-30

“Option 2”

Adopt 2003 Exchange Agreement:

- MWD Assigns To SDCWA:
 - \$235 Million For Canal Lining And Conjunctive Use Programs
 - 77,700 AF Per Year Of Canal Lining Water For 110 yrs
- SDCWA Agrees to Pay MWD’s Conveyance Rates For Exchange Water
 - Initially \$253 Per AF
 - Thereafter, “Equal To Charge Or Charges Set By [MWD’s] Board Of Directors Pursuant To Applicable Law And Regulation And Generally Applicable To The Conveyance Of Water By [MWD] On Behalf Of Its Member Agencies” (sec.5.2)

As Part of "Option 2", MWD Assigned Canal Lining Water to San Diego



DTX-125: Water Distribution System Schematic Diagram

PRICING AND PAYMENTS

5.1 Payments. SDCWA shall pay the Contract Price for each acre-foot of Exchange Water delivered by Metropolitan at the Metropolitan Point(s) of Delivery.

5.2 Contract Price. For the first 20 Contract Years, the Contract Price shall be \$90 per acre-foot of Exchange Water increased by 1.55% for every calendar year after 1998. For Contract Years 21 through 30, the Contract Price shall be \$80 per acre-foot increased by 1.44% for every calendar year after 1998. A table showing the escalation of the Contract Price pursuant to this Paragraph is attached as Exhibit 1.

Nov. 10, 1998

Original
Exchange
Agreement

- Fixed price
- 30-year term

B. Metropolitan is a public agency of the State of California incorporated under the Metropolitan Water District Act, Stats. 1960, ch. 200, as amended, codified at Section 109.1 et seq. of the Appendix to the California Water Code, engaged in transporting, storing and distributing water in the counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura, within the State of California.

Approved as to form:
Counsel for Metropolitan: *[Signature]*
Counsel for SDCWA: *[Signature]*

Page 1 of 41

SDPRA0159081

1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013

5.2 The Price. The Price on the date of Execution of this Agreement shall be Two Hundred Fifty Three Dollars (\$253.00). Thereafter, the Price shall be equal to the charge or charges set by Metropolitan's Board of Directors pursuant to applicable law and regulation and generally applicable to the conveyance of water by Metropolitan on behalf of its member agencies. For the term of this Agreement, neither SDCWA nor Metropolitan shall seek or

Water Authority Act, Stats. 1943, c.545 as amended, codified at Section 45-1 *et seq.* of the Appendix to the California Water Code, for the purpose of providing its member agencies in San Diego County with a safe, reliable, and sufficient supply of imported water.

B. Metropolitan is a public agency of the State of California incorporated under the Metropolitan Water District Act, Stats. 1969, ch. 209, as amended, codified at Section 109.1 *et seq.* of the Appendix to the California Water Code, engaged in transporting, storing and distributing water in the counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura, within the State of California.

C. SDCWA is a member agency of Metropolitan.

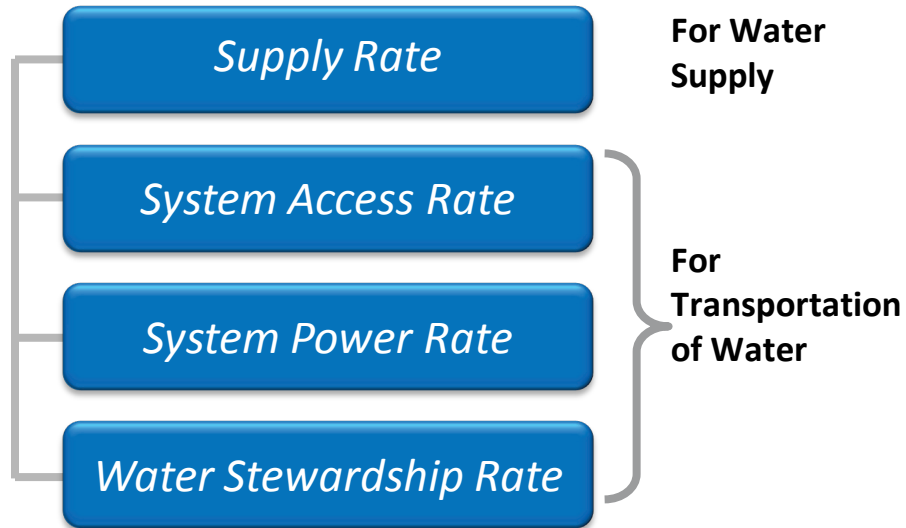
EXHIBIT A
Page 1

	New Rate Structure (Effective January 1, 2003)
Tier 1 Supply Rate (\$/AF)	\$73
Tier 2 Supply Rate (\$/AF)	\$154
System Access Rate (\$/AF)	\$141
System Power Rate (\$/AF)	\$89
Water Stewardship Rate (\$/AF)	\$23
Full Service Untreated Water Rate (\$/AF)	N/A

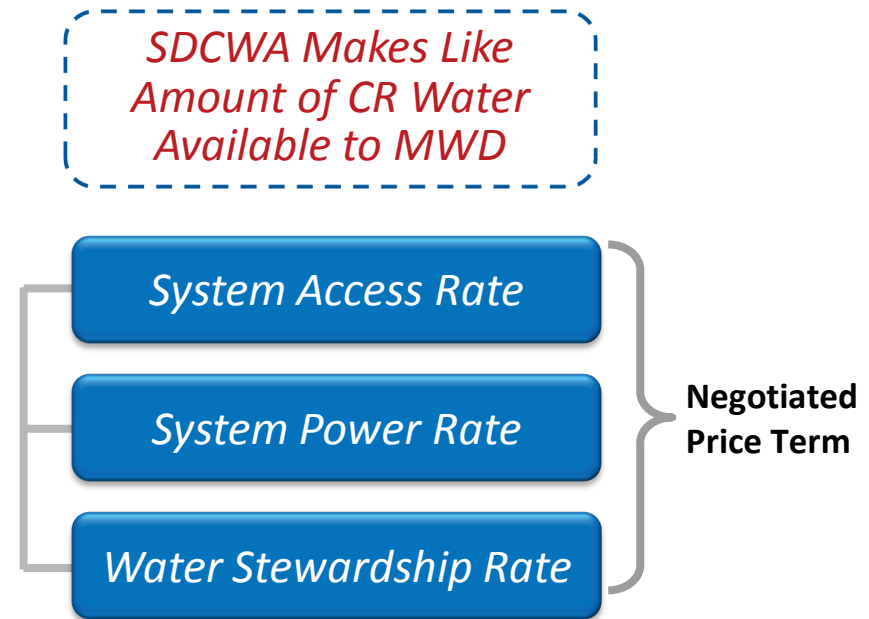
\$253

Payments to MWD

SDCWA Buys Full Service Water



SDCWA Buys Exchange Water



\$/AF = Dollars per acre-foot of water

Slater Deposition 57:22-25



“Option 2”

- San Diego Proposed “Option 2”

Slater Deposition 31:21-32:18



- San Diego Chose “Option 2”,
and Believes it was a Good Deal

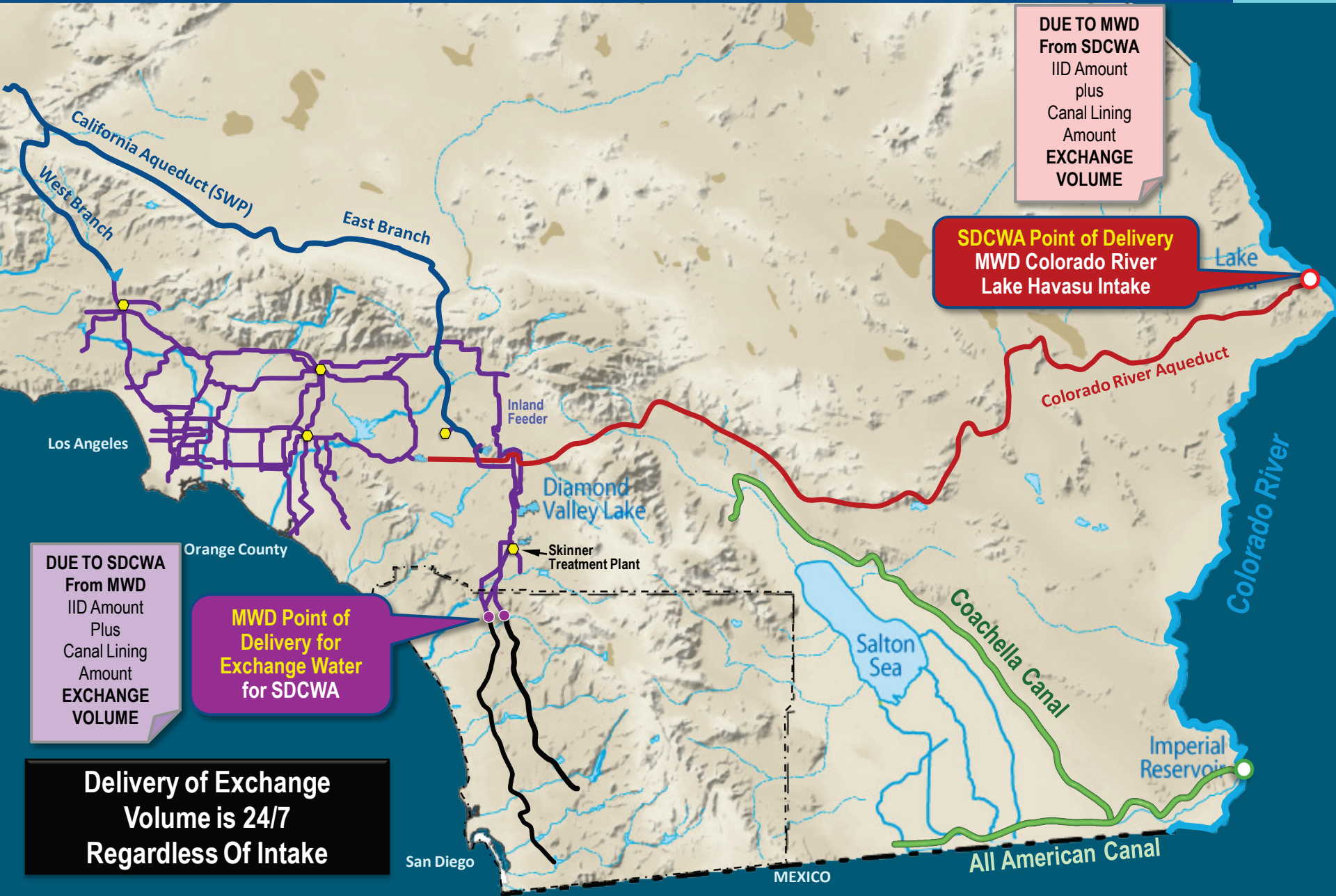
- The Exchange Agreement involves an **exchange** of water

(m) "Exchange Water" means, for each Year, water that is delivered to SDCWA by Metropolitan at the Metropolitan Point(s) of Delivery in a like quantity as the quantity of water that SDCWA has Made Available to Metropolitan under the Transfer Agreement and/or the Allocation Agreement and this Agreement for the same Year. The Exchange Water may be from whatever source or sources and shall be delivered using such facilities as may be determined by Metropolitan, provided that the Exchange Water delivered in each Year is of like quality to the Conserved Water and/or the Canal Lining Water which is Made Available to Metropolitan at the SDCWA Point of Transfer in such Year.

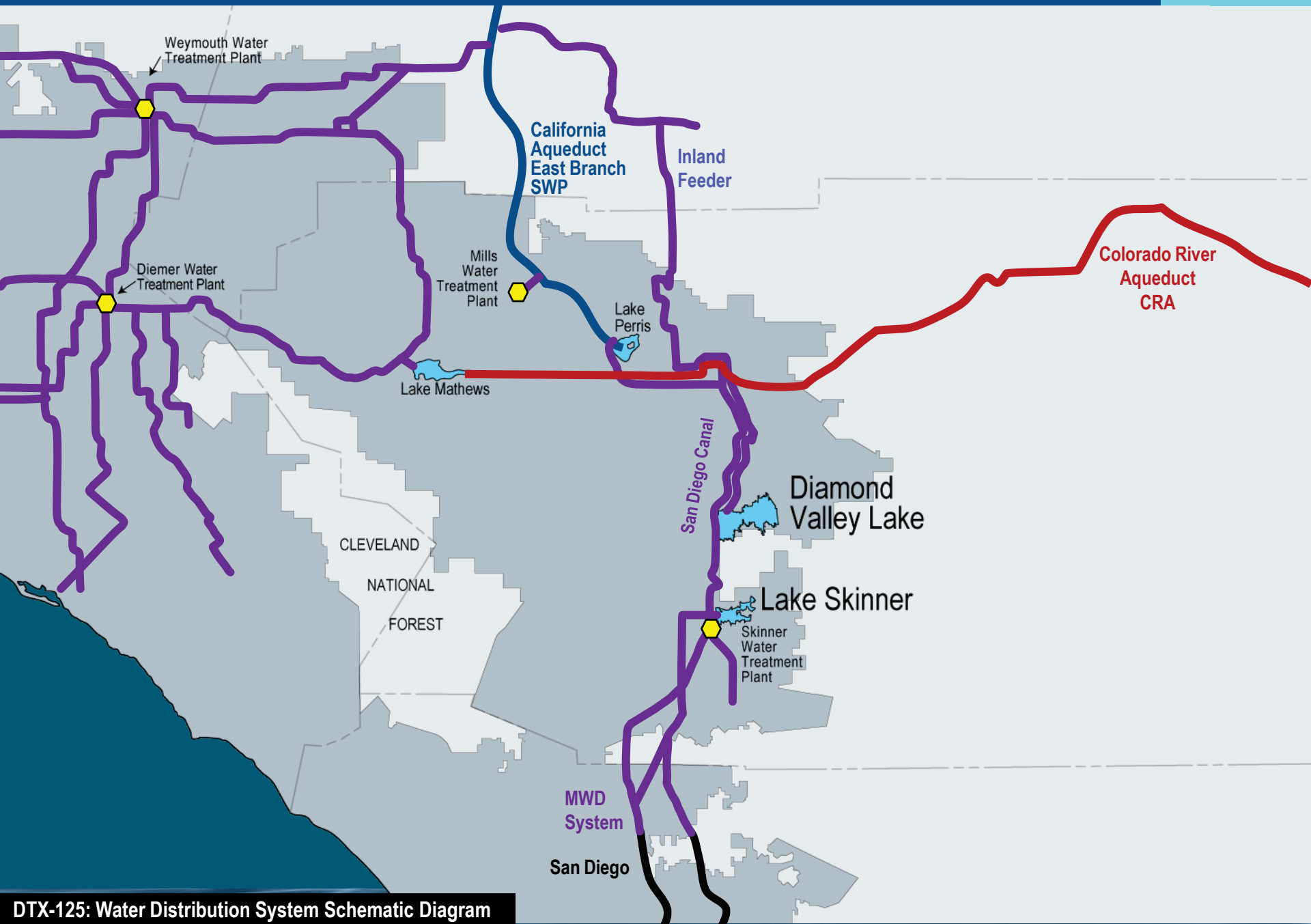
SDCWA Exchange Agreement Ex. A to SDCWA Complaint

- The Exchange Agreement does not condition exchanges on existence of **“unused capacity.”**

The Exchange Agreement is not a "Wheeling" Agreement



The Exchange Agreement is not a “Wheeling” Agreement



DTX-125: Water Distribution System Schematic Diagram

“Wheeling” Under the California Water Code

- Involves actual conveyance of water – i.e. “wheeling”
- Only when that conveyance facility “has unused capacity”
- Only when water has been provided to wheel

California Water Code § 1810

The Exchange Agreement

- Involves an “exchange” of water, not conveyance
- Obligations under it do not depend on existence of “unused capacity”
- MWD delivers Exchange Water regardless of whether SDCWA has first delivered water to MWD

2003 Amended Exchange Agreement

STATE WATER RESOURCES CONTROL BOARD

STATE WATER RESOURCE

PUBLIC HEARING ON AMENDED

IMPERIAL IRRIGATION DISTRICT AND

AUTHORITY FOR APPROVAL OF A LONG

WATER PURSUANT TO AN AGREEMENT B

APPROVAL OF CHANGES IN POINT OF

PURPOSE OF USE UNDER PERMIT NO.

PUBLIC HEARING ON AMENDED JOINT PETITION OF THE

IMPERIAL IRRIGATION DISTRICT AND THE SAN DIEGO COUNTY WATER

AUTHORITY FOR APPROVAL OF A LONG-TERM TRANSFER OF CONSERVED

WATER PURSUANT TO AN AGREEMENT BETWEEN IID AND SDCWA, AND

APPROVAL OF CHANGES IN POINT OF DIVERSION, PLACE OF USE AND

PURPOSE OF USE UNDER PERMIT NO. 7643 (APPLICATION 7482).

WEDNESDAY, APRIL 24, 2002
9:00 A.M.

CAL EPA BU
SIERRA HEAR
SACRAMENTO, C

REPORTED BY:

CAPITOL REPORTERS

WEDNESDAY, APRIL 24, 2002

9:00 A.M.

12 MR. SLATER: Ms. Stapleton, can you explain the
13 difference between an exchange and a wheeling agreement?

14 MS. STAPLETON: Yes. The exchange agreement between
15 San Diego and Metropolitan requires that San Diego basically
16 turn over an amount of water to Metropolitan at its intake
17 on the Colorado River and then alike amount, meaning just
18 that same amount in quantity, would be provided to us at our
19 turnout at the end of the Met pipes in San Diego County. It
20 is radically different than a wheeling agreement for a space
21 available in that we have a firm space in the aqueduct for
22 the length of the exchange agreement. And it is set at a
23 specific price based upon a negotiation between the two
24 agencies.

STATE WATER RESOURCES CONTROL BOARD

25 MR. SLATER: So in effect it is different from a Katz
1 Wheeling Law transfer in two regards. One is it is a trade
2 of one supply of water for another. And secondly, it is
3 firm capacity as opposed to space available?

4 MS. STAPLETON: That's correct.

9:00 A.M.

CAL EPA BUILDING
SIERRA HEARING ROOM
SACRAMENTO, CALIFORNIA

REPORTED BY:

ESTHER F. SCHWARTZ
CSR 1564

CAPITOL REPORTERS (916) 923-5447



THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Office of the General Manager

Date: April 5, 2012

To: Board of Directors
Member Agency Managers

From: General Manager Jeffrey Kightlinger
General Counsel Marcia Scully

Subject: Response to SDCWA Report on Cost of Service Review

At the public hearing on March 12, 2012, the San Diego County Water Authority (Water Authority) provided a report entitled "San Diego County Water Authority Metropolitan Water District Cost of Service Rate Review" (FCS Review). Our response to the Water Authority FCS Review follows.

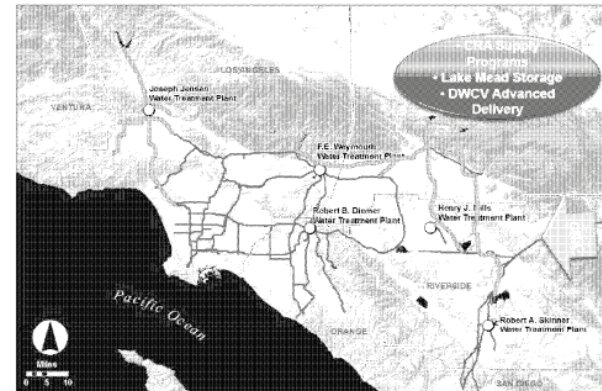
The Water Authority Misconstrues Metropolitan's System and How System Functionality Informs Rate Setting

Overall, the FCS Review appears to be based on misperceptions regarding Metropolitan's system and how the system's functionality informs the rate setting.

The FCS Review Fails to Appreciate the Importance of Regional System Flexibility

Metropolitan's system draws on diverse supply sources, transports water across a large part of the State,

Board of Directors
Member Agency Managers
April 5, 2012
Page 4



The same flexibility principles inform development and operation of Metropolitan's storage functionality. Metropolitan's ability to shift among resources in its storage portfolio in order to enhance the regional reliability of Metropolitan's imported water service in the face of so many changing conditions is the result of its integrated, flexible operating system, consisting of the entitlement to use the SWP conveyance and the CRA and the distribution system. Metropolitan is able to accomplish system

intake for Colorado River water at Lake Havasu. Metropolitan delivers the Exchange Water in approximately equal monthly installments throughout the calendar year from whatever source or sources and by whatever delivery path is determined by Metropolitan. Metropolitan's integrated, flexible system makes these deliveries possible.³ And Metropolitan's ability to blend water from various sources means that the Exchange Water delivered to the Water Authority is less saline than the Conserved Water transferred to Metropolitan at Lake Havasu. Given the operating flexibility of Metropolitan's system,

and Lake Meadows, and in-basin groundwater Conjunctive Use Programs. This integrated, regional network allows Metropolitan to move supplies throughout the system in response to supply availability and operational needs, and is shown in **Figure 1: Metropolitan Facilities, Supplies and Storage Portfolio**.

¹ 2007 Integrated Area Study, Report No. 1317, pg 2-10.

² Amended and Restated Agreement between the Metropolitan Water District of Southern California and the San Diego County Water Authority for the Exchange of Water, dated as of October 10, 2003 ("Exchange Agreement").

³ As a result, the 24-day maintenance shutdown of the CRA in March 2012 did not interrupt Metropolitan's deliveries of Exchange Water.

Colorado River Salinity Control Update

Imported Water Committee
August 22, 2013



Halla Razak, Colorado River Program Director

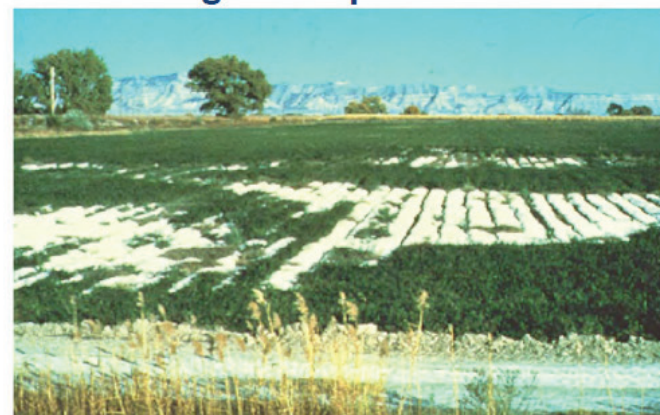
Salinity Control Background

- ▶ Colorado River has relatively high salinity
- ▶ Excess salinity causes ~\$375 million/year in economic damage
- ▶ High salinity can create environmental impacts

High salinity damages pipes



Salt-damaged Crops



San Diego County
Water Authority

Salinity of San Diego Supply

- ▶ Water Authority goal to maintain salinity no greater than 500 mg/L
- ▶ Salinity depends on the mix of SWP and CR water
- ▶ Current salinity levels are averaging 420 mg/L

